Examiners' Report
Lead Examiner Feedback

January 2021

Pearson BTEC Nationals
In Information Technology (20161K)
Unit 14: IT Service Delivery

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January 2021
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Introduction

A number of previous assessment windows have taken place for Unit 14: IT Service Delivery. This unit is only available to learners on the BTEC Level 3 National Extended Diploma in Information Technology and the unit is a mandatory part of the qualification. In the assessment for this unit, learners have to consider the IT service requirements for a given scenario and plan a solution for IT service delivery.

The unit is a paper-based examination and is broken down into a two-part task. Part A contains material for the completion of the preparatory work for Part B and is taken over a maximum of 3 hours across a period of 2 weeks. No marks are awarded for Part A. Part B contains materials for the completion of the set task under supervised conditions over a maximum of 8 hours across a period of 3 weeks. A maximum two A4 sides of hard copy research notes from Part A may be taken into the assessment. Part B is broken down into five activities that cover different areas of the specification where learners are expected to apply knowledge and understanding of the IT service delivery requirements for the hospitality sector provided in the scenario.

Templates are provided to learners for three of the activities in the set task in Part B. These templates are provided to help the learners provide a structure to their response and support them in producing relevant evidence.

The DfE confirmed on January 4th that they expected scheduled vocational exams to go ahead and it updated that guidance on January 5th to give schools and colleges the choice to offer learners vocational exams, should schools and colleges judge it right to do so. The number of learners that took the assessment was greatly reduced following these announcements.

Introduction to the Overall Performance of the Unit

The number of learners taking the assessment was fewer than in previous sessions. The quality of learner responses was similar to previous sessions.

The scenario was based on Rodri's, a restaurant employing on-site staff in a number of roles, as well as engaging the services of external contractors.

Activity 1, outline IT service strategy, saw evidence presented that met the requirements of all three-mark bands. The majority of responses were Band 1 and Band 2 responses. In some learner work, the evidence presented was generic in nature and the strategy had limited links to the restaurant business in the scenario provided.

Activity 2, IT service catalogue, saw evidence presented that met the requirements of all three-mark bands. The majority of responses were Band 1 and Band 2 responses. Many learners produced evidence that was limited in terms of the function and service name in relation to the restaurant business in the scenario provided. Evidence for trait 3 was stronger than the other traits as a non-IT specialist would have been able to understand the evidence presented with minimal assistance.

Activity 3, IT service delivery solution, saw evidence presented that met the requirements of all four-mark bands. The majority of responses were Band 1 and Band 2 responses. The main area of weakness in the evidence presented for this activity related to the data and information required to meet the IT requirements of the business.

Activity 4, management report evaluating the solution, saw evidence presented that met the requirements of all four-mark bands. The majority of responses were Band 1 and Band 2 responses. Evidence relating to alternative solutions that could be used was weak in the work of many learners.

Activity 5, IT service management implications report, saw evidence presented that met the requirements of all four-mark bands. The majority of responses were Band 1 and Band 2 responses. Evidence demonstrating the solution's capacity to respond to change was weak in the work of many learners.

Individual Questions

The following section considers each activity on the paper and provides examples of learner responses. A brief commentary is included giving reasons why the responses gained the marks they did. This section should be considered with the live external assessment and the corresponding mark scheme.

Activity 1

(Outline IT service strategy)

In some learner work, the evidence presented was generic in nature and the strategy had limited links to the restaurant business in the scenario provided. Learners identified requirements from the scenario; however, in some instances aspects of the infrastructure to allow the solution to work was omitted, for example wireless access points or switches. Some learners identified resources for the external contractors to be provided by the restaurant when external contractors would be responsible for providing their own resources.

Response 1

The learner has provided relevant information from the scenario and produced a comprehensive outline strategy that includes a mostly accurate description of the IT service/process requirements for the restaurant that meet their needs. The learner has appropriately prioritised IT service/process requirements with supported, clear rationale. The learner has shown logical chains of reasoning and a full awareness of the scenario.

There is a discussion that includes hardware, software, process requirements and some legislation. The learner work would fit into **Band Mark 3 (7 – 8)** in the mark scheme.

Organisational Needs	
IT Service Requirements	**Explanation of priority (high, medium or low)**
PCs	High – This is a high priority because there will be several PCs around the restaurant which are including one for the owner, assistant manager and the maintenance room. These PC will be used in certain way such as using for financial tasks and meetings with the accountants. The one pc in the maintenance room will be used more strictly to the two members of staff in the room for the server. These PC will have the essential that many pcs will have such as windows 10 and essentials app such as Microsoft word and Microsoft excel.
WIFI / Router	High – A router will need to be installed to the restaurant as it will have many different way that it can be used such as giving WIFI access to customers so they will be able to order on the tablets and giving internet access to run the server and any other company device in the restaurant.
Switches	High – A switch will need to be installed as it will be used to connect the PCs, server and any other device together.
Wireless Access Points	High – Wireless access will be a key item to have in the restaurant as it will help giving out the WIFI connection out to the whole of the facility.
CCTV	High – CCTV will be dotted around the restaurant to provide security for the building and will be linked up to the server which will be allowed to access recording via the pc in the maintenance room.
Laptops	High – Laptops will be used by bar staff/ head chef and host so they will be able to update the stock records and place orders online.
Server	High- The server will be used for filing documents and will be used
	for a security measure as well for the CCTV footage. This will be a main priority to have as it will be the main thing for the restaurant to have. This will also be used for the website as well.
Website	High – Website will be a high priority because it will be advertising to customers which will give them a view of the restaurant and what it is all about. This will also be an area that customers can view an online menu and customers will be able to book online as well.
iPad / Tablets	High – The iPad / Tablets will be used for ordering customers meals which will be send straight to the host so he will be able to send the order to the kitchen and will be making the bill for the customer at the end.
Digital Door locks	High – This will be a very high priority item as it will give the building more security so there will be less of a threat if a random person was trying to access a restricted room.
Card payment machine	High – This is a useful item as it will give a way so the customers will be able to pay by card then cash.
Communication Software	Medium – The software will be used for the owner and assistant manager so they will be able to contact the accountant and the IT Support contractors for meetings.
POS System	High - The POS system will be used throughout the restaurant as it is one of system. The POS system will give the kitchen a screen that will show them customers order when they come through. This is the same with the bar as well. This also helps out with the payments and stock lists.
Loyalty Card	Low – The restaurant will have a loyalty card that will calculate points that customer can use if they get several points to get discounts or free meals off.
Cloud Storage	Low – The cloud storage is that high of a priority, but it can be used so the data can be access from anywhere and it can also save a lot of space on the servers in the maintenance room.
Data Protection Act 1988	High – Data protection a very high priority as it is a very strict law for the restaurant to make sure to protect staff and customers information if given too.
Computer Misuse 1990	High – This is also a very high priority as this law will protect that no
	of the staff in the workplace will damage or adapted any device in the restaurant.
Health and safety at work act 1974	High – This is very high priority as well as it will make sure that the restaurant doesn't have any hazards and will make the restaurant check daily for any.
Firewall	High – A firewall will be able to help with old and new threat trying to get into the restaurant system.
Anti-virus	High – All IT device in the restaurant will have an anti-virus which will help out with new virus that come out.
Switches	High – The switch will be used to link all the network together.

Customer Needs	
IT Service Requirements	**Explanation of priority (high, medium or low)**
iPad / Tablets	Medium – This can be used for customers to order food while in the restaurant.
Phones	Medium – Customers phone could also be a way of order the food via.
WIFI Access	Medium – WIFI access for customers will be there but won't be that much priority as staff members can also be able to order the customer's order via the tablet / iPad.
Card machines	High – Card machines will be used for customer to pay by card or they can also pay by cash.
Data Protection Act 1988	High – This is a very high priority for customer as customer won't allow their information to be stolen or leak if there was a breach in the restaurants data.
Customers Information	Low – The restaurant could have customers information, but it is very low as if the restaurant wanted to make a loyalty card, they will need to know some bits of customer information to sign up for it.
Loyalty cards	Low – This would be a low priority as customer have a choice of getting a loyalty card from Rodri's restaurant.

Response 2

An attempt has been made to provide a description of IT service/process requirements for the organisation; however, the information from the scenario is limited. The learner has attempted to prioritise the IT service/process requirements but prioritisation is unsupported and there is limited use of different priorities in relation to the scenario.

The strategy is incomplete as much of the information provided is in isolation and there is no consideration of legislation, for example, which shows a limited awareness of the scenario. The learner work would fit into **Band Mark 1 (1 – 3)** in the mark scheme.

Organisational Needs	
IT Service Requirements	**Explanation of priority (high, medium or low)**
Rodri's is a restaurant that where the customer enters is seated to by the Host, then asks the servers (human) or bar staff for something that gets ordered and fulfilled by the bar staff or sent the kitchen in which it will be fulfilled there and then taken by the servers to the customers. The Owner and the Assistant Manager will be over seeing the operation and updating the rotas when appropriate. There is an Owner, an Assistant Manager, Head Chef, Sous Chef, three Cooks, a Host, three Servers, two Bar Staff and two Maintenance. With all the rest being contractors from another company. All the people will be in one building but in multiple rooms, meaning that over then connecting to other companies' services it is able to all be done on the same network with switches and a router. The	
Owner – Needs a basic laptop and access to the local network and internet via Wi-Fi.	**High** – It is important for the Owner to be able to work with a computer because the Owner needs to be able to pay the employees, update the website, and update the staff rotas so that there are people in the restaurant working.
Assistant Manager – Needs a basic laptop and access to the local network and internet via Wi-Fi.	**High** – It is important for the Assistant Manager to be able to work with a computer because the Assistant Manager needs to be able to update the staff rotas so that there are people in the restaurant working, create menus, and prepare policies and procedures.
Host – Needs a basic tablet with a hospitality app, and access to the local network and internet via Wi-Fi.	**High** – It is important for the Host to be able to work with a tablet because The Host needs to manage orders and seating arrangements and calculate the bills.

Head Chef – Needs a basic tablet with access to a database and online marketplace, and access to the local network and internet via Wi-Fi.	**High** – it is important for the Head Chef to be able to work with a tablet to be able to keep stock of what ingredients are being used and to buy new ingredients.
Sous Chef – Needs access to the Head Chef's tablet, and access to the local network and internet via Wi-Fi.	**Medium** – Only needs to be able to the same stuff as the Head Chef but only when the Head Chef is unavailable.
Cooks – Needs access to the Head Chef's tablet, and access to the local network and internet via Wi-Fi.	**Low** – Only needs to be able to the same stuff as the Head Chef but only when the Head Chef is unavailable.
Servers (Human) – Needs a basic tablet with the app or database used for order taking, and access to the local network and internet via Wi-Fi.	**High** – Needs to be able to do orders for the customers.
Bar Staff – Needs a basic tablet with the app or database used for order taking, and access to the local network and internet via Wi-Fi.	**High** – Need to be able to take stock or drinks served.
Maintenance – Needs access to a laptop, and access to the local network and internet via Wi-Fi.	**High** – Needs to be able to keep inventory of all equipment and appliances and order spare parts off the internet.
Accountant – If the off-site contractor does not supply their own hardware / software then then the accountant would need a basic laptop and access to the local network and internet via Wi-Fi.	**High** – It is important for the Accountant to be able to work with a computer because the Accountant needs to be able to do the job.
IT Support – If the off-site contractor does not supply their own hardware / software then then the IT support would need to be able to access all electronic devices, and access to the local network and internet via Wi-Fi.	**High** – Needs to be install new hardware, software and resolve technical problems.
The Kitchen Tablet – Just a basic tablet.	**High** – This is needed to keep track of orders and stock, all while ordering new stock when things are needed.
Tablet Tills At The Bar – Basic tablets with the app or database used for order taking and strap to mounts.	**High –** This is needed so that they can sell drinks and record the sales.
Portable Server Tills – Basic tablets with the app or database used for order taking.	**High** – This is needed so that they can sell food and drinks and record the sales.
Thermal Printer – A simple battery powered wireless printer that prints by heating the paper.	**High** – This is needed so to allow for customers to be billed for food and or drink. The fact that it is a thermal printer will cut down on cost by buying only paper and no ink and simplify it so that you only need one thing.
Server – This will allow for the company to run a file server and a webhost server from the same machine.	**High** – This is important to allow for the company to save files and website that gives details of the restaurant and the menus.

Internet Access. – This is what will allow for devices on the local network to access devices outside the network.	**High** – This is very important because it is needed to allow for the web server to access networks outside of the reach of the local network. This will also allow for the future development of forms to allow for online bookings and a web version of the menu.

Customer Needs	
IT Service Requirements	**Explanation of priority (high, medium or low)**
Financial Security – Secure transactions with no data stored.	**High** – Needs to not have the company get hacked and all the data lost.
Quick service – Need high speed system that does not take more than a couple of seconds to process.	**Medium** – Needs to not have a slow system that does not take a while for it to appear to the person creating the food or drink.
Online Menu – A basic easy to read online version of the menu.	**Medium** – Needs to be up and running so that people can browse the menu, but I doubt that many people will use this feature, due to its rarity.
Online Booking – A basic online way to book a table for a certain number of people.	**Medium** – Needs to be up and running so that people can book online, but I doubt that many people will use this feature, due to older people not knowing how to use online forms.

Activity 2

(IT service catalogue)

Many learners produced evidence that was limited in terms of the function and service name in relation to the restaurant business in the scenario provided. Most learners considered aspects of both current and future IT requirements from the scenario. Evidence for trait 3 was usually stronger than the other traits as a non-IT specialist would have been able to understand the evidence presented with minimal assistance.

Response 1

The learner has produced an IT service catalogue that includes relevant information from the scenario. The learner has identified services that are appropriate for the business functions and has included accurate service names and descriptions. This learner shows a sound awareness of the restaurant's requirements, with descriptions being clear and concise to enable a non-IT specialist to understand.

The learner work would fit into **Band Mark 3 (7 – 8)** in the mark scheme.

Function	Service name	Service description
Owner The owner functions are: • Hires staff • Manage staff rotas • Markets restaurant • Manages and update the website	Hardware that owner will need • Computer monitor • Keyboard • Mouse • Smart Phone • Printer Software that owner will need: • Microsoft Office 365 • Word • PowerPoint • Excel • Access • Email server • Web server • Filer server	The owner will need all this hardware stated because this is how he runs his business and completes his day to day tasks. Computer will be needed for the basics of tasks like accessing business databases to retrieve information. Using the computer to create contracts for his employee. His PC will also be used to manage staff rotas, so the business stays organised and well run. Smart phone will be needed to make phones calls and access emails on the go and sin contact with restaurant when his is away. Printer will be needed to print off documents like spreadsheets, payslips, contracts, menus and legalisation documents. The owner will also be needed multiples software systems to go with his computer and complete his day to day tasks. Microsoft Office 365 will be needed to do majority everything he will need to do. Microsoft word will allow him to type up documents on his PC. Microsoft PowerPoint will allow him to create slide show to train new staff on health and safety. Microsoft Excel will allow him to create spreadsheets on the company incomes and outgoings to mange spending. Microsoft Access will allow him to create databases of staff details like, Staff name, address, email, contact number. Email server will allow him to send emails off to other members or off-site members. Web server will allow him to access the web so he can manage his website. File server will be used to hold and save files to his computer.
Assistant Manager The assistant manager functions are: • Runs restaurant in the owner absence • Helps with staff rotas	The hardware that assistant manager will need: • Computer monitor • Keyboard • Mouse • Smart Phone	The assistant manager will also need multiple hardware equipment to complete his tasks for the organisation. Computer will be needed because he assists the owner with rotas so he will need a computer to access the document and make changes if needed. He will also need a computer because he runs the restaurant in the owner absence. He also creates menus with the head chef so a computer will have needed her to create the new menus. He also prepares polices for the organisation so he will need a computer to do

• Assist the head chef with creating menus • Prepares polices and produces	• Printer Software that owner will need: • Microsoft Office 365 • Word • PowerPoint • Excel • Access • Email server • Web server • File server	this. There are also many software systems that are needed for the assistant manager to do his job. Microsoft office 365 will be needed for most of his tasks. Microsoft word will be needed to assist the owner in creating rotas for staff members, creating menus with the head chef for the business. PowerPoint will be needed to train staff members on health and safety. Email server will be needed to send emails to the owner and other staff members. Web server to access the company website and file server to access documents and save documents.
Host The host functions: • Meet and greets customers • Record bookings • Record customer bookings and gives it to the kitchen • Add up money taken at the end of the night • Manages and train new staff	The hardware that will be needed: • Laptop • Tablet • Earpiece • Ticketing Machine • Tills • Card reader The software that will needed: • Microsoft office 365 • Excel • Word • PowerPoint • Customer booking system • Ticketing software • EPOS system	The hardware that the owner will need are a laptop to record customer bookings and see how many customers will be expecting. Will need a laptop to calculate and manage the takings at the end of the night. Laptop will also be used to access the staff rotas and see who is working so he can manage the amount of staff he has. Laptop will also allow the host to train new staff members on the company polices and health and safety. Earpiece will be used so the host can communicate with everyone on the resultant floor and ticketing machine will be needed do kitchen staff can receive the customer orders from the host. A Till is needed because the host prepares the customer bill and need a till to calculate and store the money when the customer has paid for it. A card reader is also needed to have another payment method is the customer wants to pay by card. The software that will be needed for the host. Microsoft office 365 will be needed to access word, excel, PowerPoint. Word will be needed do he can access the staff rotas, Excel will be needed so he can manage the customer bookings and record new ones, PowerPoint will be needed do he can train new staff. Customer booking system so he can record the customer party size and what time they be coming. Ticketing software will be needed so he can send the order to the kitchen so they can prepare the order. EPOS system is needed to connect the tills and card reader together and allow the transaction to go through.
Maintenance The function of the maintenance: • Maintain and service kitchen appliances	The hardware needed: • Laptop • Earpiece Software needed: • Microsoft Office 365	The hardware that the maintenance members of the business will need would be a laptop and earpiece. A laptop will be needed because their role is to manage the equipment and keep an inventory off equipment and appliance, having a laptop will allow this process to be easy and efficient because they can store data and hold information regarding the equipment and appliances. They will also need a laptop
• Maintain the service and bar restaurant • Order spare parts • Keep and inventory of all equipment and appliances	• Access • Stock taking software • Web server	because they order stock and will need a laptop to complete this task. An earpiece will be needed so they can stay in contact with the kitchen, restaurant and bar if anything goes wrong. Web server will be needed so they can order new parts if needed. The software that will be needed would be Microsoft office 365, Access, Stock taking software. Having Access will allow the maintenance members to a database that they can store all the equipment and appliances data such as product name, batch code and year of purchase. They will need stock taking software to manage the inventory and see what parts they have in storage so they can decide on to order new stock.
Head Chef The function of the head chef: • Create menu • Cook meals • Keep record of ingredients and stock • Buy supplies • Manage and train new kitchen staff	The hardware needed: • Laptop • Earpiece • Ticketing machine The software needed: • Microsoft Office 365 • Stocktake software • Word • Excel • PowerPoint • Ticketing software • Web server	The hardware that the head chef will need are a laptop and an earpiece and a ticketing machine. A Laptop will be needed so that he heads chef can train new staff members and manage the current kitchen members. Laptop will also be needed so the head chef can access the staff rotas and see which members are working that day. The chef has mange the stock and ingredients this can be done by using a laptop. Buying supplies must be done through the laptop. Earpiece will be needed so the head chef can stay in contact with host and maintenance. Ticketing machine will be needed so the chef can receive orders from the host. The software that will be needed would be Microsoft Office 365, Stocktake, word, excel, PowerPoint, ticketing software and web server. Stocktake software will allow the chef to hold data of all his stock and will let him know if he needs to buy more stock and ingredients. Word will be needed because he must create menus and using word will allow him to do that. Excel will allow him to manage the staff and give them roles on what to do. Ticketing software will allow him to receive orders and be processed through the machine. Web server will allow him to purchase new stock when he needs to.
Servers Server function: • Take orders • Pass orders to host • Serve meals to customers	The hardware that will be needed: • Tablet Software that will be needed: • Ordering system • Messaging system	A tablet will be need by the server because he/she must take down the customer order and pass it on to the host. The software that is needed for this is a ordering software so that the server will able to place the order down because they have the correct software, messaging software is needed so they can send the order off to the host so they can send it to the kitchen to be made.
Bar Staff Bar staff Function: • Prepare drinks	The hardware needed: • Laptop • Till	The hardware that is needed by the bar staff will be a laptop, tills and card reader. A laptop is needed because the bar staff need to mange stock levels of the bar and need to record the takings of the bar at every evening. Tills are needed because the staff take

• Record stock • Take payments of customer who drink at the bar • Add up bar takings at the night	• Card reader Software needed: • Microsoft Office 365 • EPOS software • Excel • Stocktake	money off customers and need a till to calculate the amount they owe and have a place to store the money. A card reader is needed because they need to have two methods of paying by cash and by card. The software needed is EPOS software, Microsoft office 365, Excel and stocktake. EPOS software is needed because they till, and card reader need to have the correct software to able to allow the customer to make purchase and allow the bar staff to calculate the correct amount. Excel is needed because the bar staff must add up all the takings of the night and see how much money has been made on the night. Stocktake software is needed because they need an amount of stock they have and order more stock when need to.
Accountant Accountant Function: • Prepares accounts and tax returns • Controls incomes and outgoings • Audits financial information	The hardware needed: • Computer • Printer • WAP The software that is needed: • Account creator • Microsoft office 365 • Excel • Filer server • Web server • Email server	The hardware that is needed by the accountant is a computer and a printer. A computer is needed because they have created accounts for the business and that will allow the to run and trade in the best way. Computer is also needed because the accountant must do the business tax returns. Control the business incomes and outgoings will be managed by the account from his computer. A WAP is needed so the account can have wireless access to the organisation network as he if off site. A printer is needed in case the accountant needed anything printing for the owner. The software that is needed is account creator, Microsoft office 365, Excel, File server, web server and email server. An account creator is needed because the accountant must create special accounts for the business. Microsoft office 365 is needed because the accountant must have Excel to manage the company incomes and outgoings. Web server is needed so that the accountant can access the web and email server is needed so he can contact the owner via email about anything. File server is needed so he can save documents sent by the owner.
IT Support IT support function: • Install hardware • Install software • Solves Technical issues	The hardware that is needed: • Computer • WAP • Printer Software needed: • Installation software • Video software • Messaging software • Web server	The hardware needed by the IT support is Computer, WAP and printer. A computer is needed because the It support needs to install software and install hardware and a computer Is needed to do most of it. WAP is needed because the It support is working off site and if anything goes wrong with the business network and then It support can be able to fix it remotely from his computer. A printer is needed in case that the It support needs anything printing off for his clients. Video software and messaging software is needed so the clients can contact the IT support if there is any problem. Installation software is needed so that they IT support and install the correct software needed. Web server is needed to he can have access to the web.

Response 2

An attempt has been made to produce an IT service catalogue, however there is limited information to show individual IT services for each function of the restaurant. An attempt to identify IT service names and service descriptions has been produced, showing a limited understanding of the restaurant's requirements.

The learner work would fit into **Band Mark 1 (1 – 3)** in the mark scheme.

Function	Service name	Service description
Staff management and support	Staff training Owner, Assistant Manager and Head Chef Anti-Virus	Owner - owns the business and hires new staff while organizing their pay and organizing the website, without the owner to manage the staff there would be no business. They can also assist new staff on how the business works and their role in it Head chef – Assists in training new cooks on how to use the kitchen effectively and properly, also helps the owner with the menus. This functions as staff management because without the head chef all other cooks and new cooks would be aimless. Assistant Manager – While the owner is not present at the business, the Assistant Manager takes over until the Owner arrives, this could mean that if owner is gone, the Manager can help with possible new staff and issues that the owner had, also assists head chef in creating the menus for the restaurant, releasing some stress from the head chef. Maintenance – helps keep all equipment and appliances maintained, also orders spare parts for the business, without the maintenance keeping all of the equipment up-to-date, everyone would be using old equipment. It means that if maintenance is gone, the staff will need to be properly trained to take care and if so, repair their tools and equipment. With antivirus on every device the business owns, there will be little chances of there being a hacker attacking your data, which allows the staff to work and be effective without the worry that all their work might get corrupted and stolen.

Customer relations	Public Wi-Fi Website	With this the customers can access the website much easier than using mobile data, this allows them to pay remotely through the website which means less hassle for the customers, then leading for them to come back to the restaurant more often. It presents customers the digital way to view and pay for their meals, allowing less work for both them and for the staff.
Delivering services	IT Support Accountant Owner hardware + software: . 1 Dedicated PC Windows . Chrome . Gmail	Both off site contractors that help around the business, which includes the IT Support installing hardware and software and solving technical issues and for the Accountant to help with taxes along with control income and expenditure.
Marketing and sales	Website Email Social Media	A web page on the internet that presents data to whoever clicks the link to the website. In relations to Rofri's it presents customers the digital copy of the menu at the restaurant and other notable information like possibly the address and telephone number of the building. The business could send multiple emails to many people like close friends or other business partners so that they know about the restaurant, the email could also contain a phone number and an address so that they can find the business much faster Business could also market themselves through social media sites like Facebook and Twitter, allowing more people to be interested in the restaurant, which could cause them to share it more to their friends and others through those sights. This will cause the business to gain more sales and promotion.

Activity 3

(IT service delivery solution)

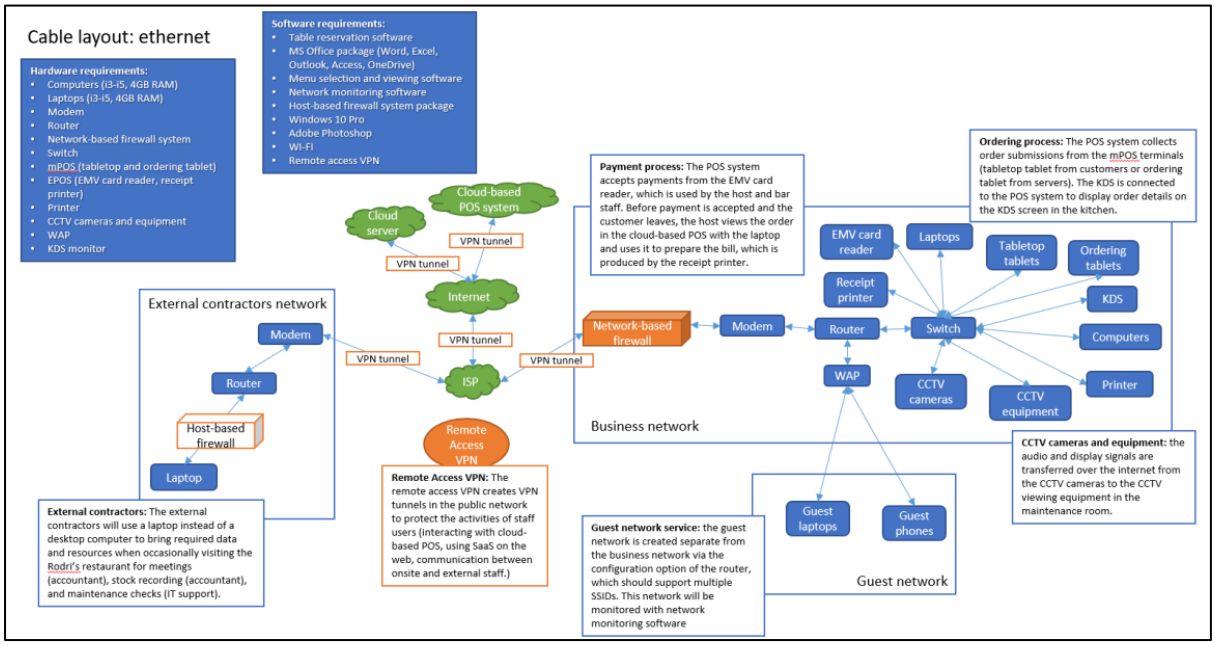
The main area of weakness in the evidence presented for this activity related to the data and information required to meet the IT requirements of the business. Where data and information had been identified, often there was no indication of the links between the data and/or inappropriate direction of flow of data within the business.

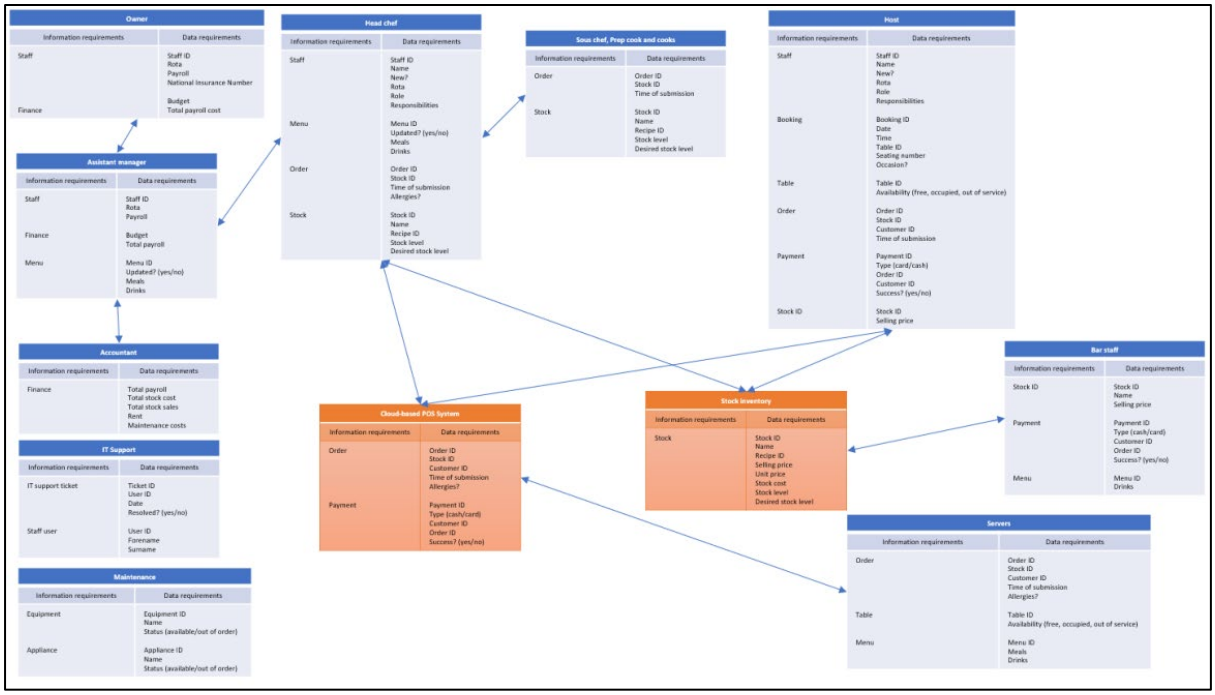
Response 1

The learner has included effective and comprehensive information and data requirements that meet the IT requirements.
A minor weakness is the data and information requirements relating to Maintenance and IT Support as these are not linked by the learner to the restaurant data and information.

The learner has provided adequate coverage of how hardware and software can be used to implement the solution and support users. The learner has shown a sound awareness of the scenario with minor inaccuracies.

The learner work would fit into **Band Mark 4 (16 – 20)** in the mark scheme.




Owner
Information requirements
Data requirements
Staff
Staff ID
Rota
Payroll
National Insurance Number
Finance
Budget
Total payroll cost
Assistant manager
Information requirements
Data requirements
Staff
Staff ID
Rota
Payroll
Finance
Budget
Total payroll
Menu
Menu ID
Updated? (yes/no)
Meals
Drinks
Accountant
Information requirements
Data requirements
Finance
Total payroll
Total stock cost
Total stock sales
Rent
Maintenance costs
IT Support
Information requirements
Data requirements
IT support ticket
Ticket ID
User ID
Date
Resolved? (yes/no)
Staff user
User ID
Forename
Surname
Maintenance
Information requirements
Data requirements
Equipment
Equipment ID
Name
Status (available/out of order)
Appliance
Appliance ID
Name
Status (available/out of order)
Head chef
Information requirements
Data requirements
Staff
Staff ID
Name
New?
Rota
Role
Responsibilities
Menu
Menu ID
Updated? (yes/no)
Meals
Drinks
Order
Order ID
Stock ID
Time of submission
Allergies?
Stock
Stock ID
Name
Recipe ID
Stock level
Desired stock level
Sous chef, Prep cook and cooks
Information requirements
Data requirements
Order
Order ID
Stock ID
Time of submission
Stock
Stock ID
Name
Recipe ID
Stock level
Desired stock level
Host
Information requirements
Data requirements
Staff
Staff ID
Name
New?
Rota
Role
Responsibilities
Booking
Booking ID
Date
Time
Table ID
Seating number
Occasion?
Table
Table ID
Availability (free, occupied, out of service)
Order
Order ID
Stock ID
Customer ID
Time of submission
Payment
Payment ID
Type (card/cash)
Order ID
Customer ID
Success? (yes/no)
Stock ID
Stock ID
Selling price
Cloud-based POS System
Information requirements
Data requirements
Order
Order ID
Stock ID
Customer ID
Time of submission
Allergies?
Payment
Payment ID
Type (cash/card)
Customer ID
Order ID
Success? (yes/no)
Stock inventory
Information requirements
Data requirements
Stock
Stock ID
Name
Recipe ID
Selling price
Unit price
Stock cost
Stock level
Desired stock level
Bar staff
Information requirements
Data requirements
Stock ID
Stock ID
Name
Selling price
Payment
Payment ID
Type (cash/card)
Customer ID
Order ID
Success? (yes/no)
Menu
Menu ID
Drinks
Servers
Information requirements
Data requirements
Order
Order ID
Stock ID
Customer ID
Time of submission
Allergies?
Table
Table ID
Availability (free, occupied, out of service)
Menu
Menu ID
Meals
Drinks

Managing Infrastructure and Users

Owner

- Manages staff rota by viewing responsibilities and schedules in the staff database.
- Hires staff by checking their national insurance number in the staff database.
- Manages the website by storing website resources in the file server and updates the website by updating new menus and restaurant details.
- Check the meeting database to see when there will be a meeting in the administration room with the accountant.

Assistant manager

- Check schedules and responsibilities in the staff database to help members with their rota.
- Help the head chef with creating new menus by working with the head chef on the shared laptop and pass changes to the owner to commit the changes on their computer in the administration room.
- Check policies and procedures and ensure they are met like making sure that staff users on DSE like the server using the tablet is doing so while taking health and safety measures.
- Check the meeting database to see when there will be a meeting in the administration room with the accountant.

Host

- Check table reservations to know when customers will be entering the restaurant to greet them to their tables by checking the bookings database.
- Record bookings by retrieving new booking data from the booking database which is connected to the Rodri's website.
- View order details on the cloud-based POS system to calculate the bill.
- View real-time reports collected by the cloud-based POS system to record the profit taken.
- Check the staff database to look for new service staff members to manage and train them.

Head chef

- Use the kitchen shared laptop to create and update menus with the assistant manager.
- Check order submissions received by the KDS to prepare the requested meal.
- Record the ingredients used and stock takes in the stock database using the shared laptop.
- Check stock inventory to see if the requested meals can be made.
- Check the staff database to look for new kitchen staff members to manage and train them.

Sous chef

- Help the head chef recording stocktakings in the stock database with the shared laptop.
- Check order submissions received by the KDS to prepare the requested meal.

Cooks

- Check order submissions received by the KDS to prepare the requested meal.
- Help the head chef recording stocktakings in the stock database with the shared laptop.

Prep cook

- Check stock inventory to see if there are enough ingredients for the requested meal displayed on the KDS monitor and prepare, wash, and chop them for the cooks if there are enough ingredients available.
- Check order requests on the KDS monitor to see which kitchen stations are to be occupied to create the meal and clean them for the cooks.

Servers

- Use the mPOS ordering tablet to submit orders to the POS system at tables.
- Compare table ID collected by the order details in the POS system with the tablet to know which table to approach and serve the meal.

Bar staff

- Check the stock inventory to see if requested drinks are available to serve and to know which ones are out of stock at the moment to inform the customers.
- Record the stock used after serving drinks on the stock database using the shared laptop.
- Use the EMV card reader to accept customer payments.
- View real-time reports collected by the cloud-based POS system to record the profit taken.

Maintenance

- Check the equipment and appliance databases with the shared computer in the maintenance room to inspect for kitchen appliances, and bar and restaurant equipment which need maintaining and service providing.
- Order required spare parts for the maintenance and service of kitchen appliances, and bar and restaurant equipment.
- Record the status of appliances and equipment on the equipment and appliance databases with the shared computer.

Accountant

- Record financial information on the finance database including costs, taxes, profits, etc.
- Check the meeting database to see when there will be a meeting in the administration room with the owner and/or assistant manager

IT support

- Communicate with staff users with Outlook to assist them with the use of IT systems to solve issues with diagnosis, installation of hardware or software, etc.
- Record IT issues with IT support tickets and record their status in the IT ticket database to mark whether they are solved or not.

Website

- Domain
- Updating new menu creations and restaurant details.
- Collect online bookings to be stored in the booking database to help with customer seating management
- Host website resources in the file server
- Maintain hosting

- Link social media accounts

IT legislations

General Data Protection Act (GDPR): An act to ensure the protection of privacy integrity of customers and employees. IT is expected that they can correct their data if necessary if a customer has entered incorrect information in the booking details and employee has changed address which should be recorded in the staff database.

Health and Saftey DSE Regulations: Regulations to ensure that users working with DSE equipment like the server using the ordering tablet and host using the laptop for recording online bookings are doing so while taking important health and safety measures. The owner should provide employees with breaks from DSE work, eye tests if asked, and training and information sharing for the minimisation of risks.

Telecommunications Act: An act that allows the Rodri's organisation to legally monitor their own network with network monitoring software. This is necessary as the guest network will need to be especially monitored for suspicious activity,

Computer Misuse Act: An act that ensures that computers are secured from unauthorised access and illegal activity. This can be done with the use of firewall systems installed in computers and the protection of files with password to establish user access levels.

Security

Firewall systems: A network-based firewall system will be deployed in the Rodri's restaurant network to protect the network from unwanted data from outside the network. Host-based firewall system will be configured in all computers associated with the company including the external contractors to protect the computer systems from unauthorised access from outside the network.

Remote access VPN: VPN must be installed on all computers and activated when the staff user is accessing the internet to secure their activities from interception from hackers, which is done by the creation of VPN tunnels for masking the data.

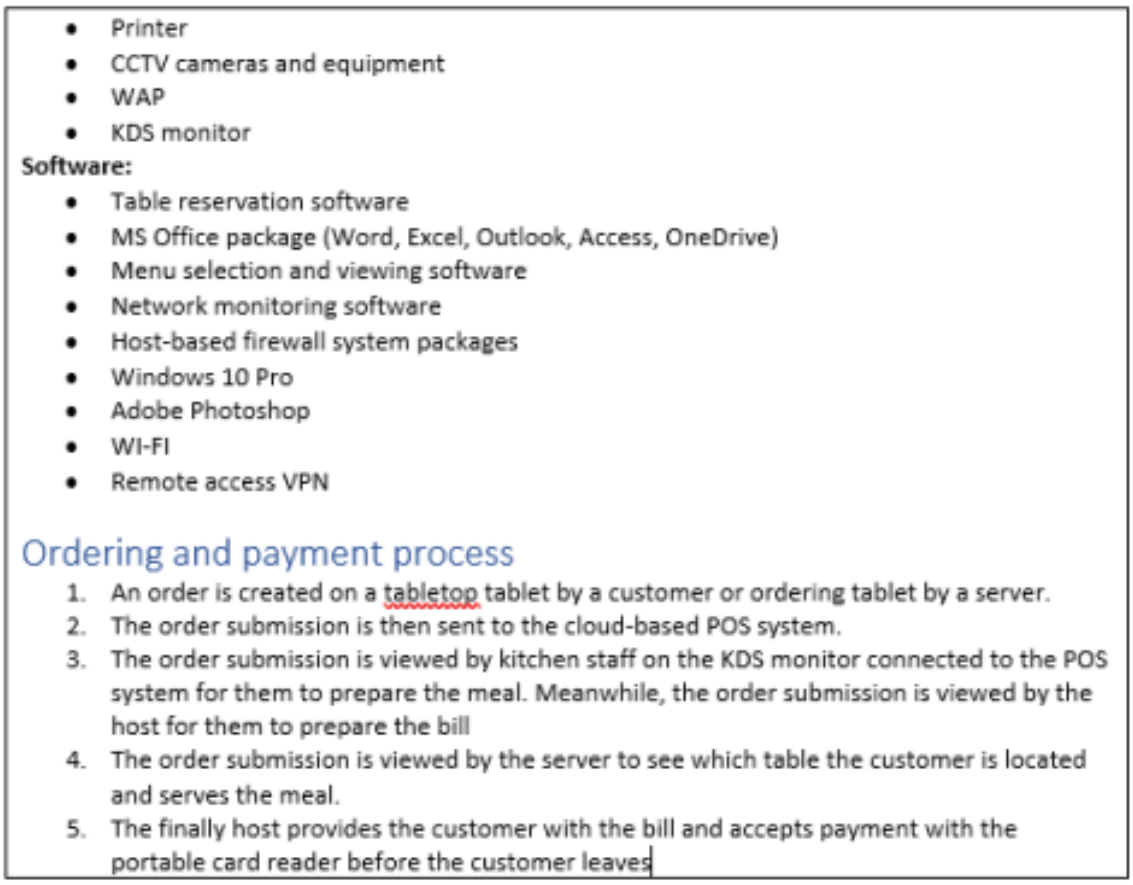
CCTV cameras and equipment: CCTV cameras deployed in the restaurant will be monitored with CCTV monitoring equipment in the maintenance room.

Windows 10 Pro: This OS will equip computers with enhanced security.

Network

Hardware:

- Cable layout – ethernet cable
- Modem
- Laptops
- Computers
- Router
- Switch
- Network-based firewall system
- Switch
- mPOS (tabletop tablets, ordering tablets)
- EPOS (EMV card reader, receipt printer)



- Printer
- CCTV cameras and equipment
- WAP
- KDS monitor

Software:

- Table reservation software
- MS Office package (Word, Excel, Outlook, Access, OneDrive)
- Menu selection and viewing software
- Network monitoring software
- Host-based firewall system packages
- Windows 10 Pro
- Adobe Photoshop
- WI-FI
- Remote access VPN

Ordering and payment process

1. An order is created on a tabletop tablet by a customer or ordering tablet by a server.
2. The order submission is then sent to the cloud-based POS system.
3. The order submission is viewed by kitchen staff on the KDS monitor connected to the POS system for them to prepare the meal. Meanwhile, the order submission is viewed by the host for them to prepare the bill
4. The order submission is viewed by the server to see which table the customer is located and serves the meal.
5. The finally host provides the customer with the bill and accepts payment with the portable card reader before the customer leaves

Response 2

An attempt has been made to include information and data requirements but the information covers very basic requirements The evidence demonstrates a limited technical understanding of how the solution works, with omissions.

The learner has not indicated any software and only identified some hardware such as PCs, server and EPOS terminals. There is little understanding of how the hardware and software can be used to implement the system. Data flow diagrams and a full infrastructure diagram could be used to illustrate requirements.

The learner work would fit into **Band Mark 1 (1 – 5)** in the Mark Scheme.

Company Website-

- Register the domain name
- Select an appropriate web hosting service
- Create designs for the website banner
- Hardware and software technologies that are being used
- Web server and software available
- Web authoring tools
- Legislations
- GDPA 2018
- Copyright, Designs and Patents Act
- Company Misuse Act

IT Technicians

- Mainainance
- Regular backup and restore procedure, saving user accounts
- Finding bugs in the system
- System testing, work logs
- Security and threat detection
- Firewall supervision, access rights, encryption methods
- Maintaining physical security of computers.

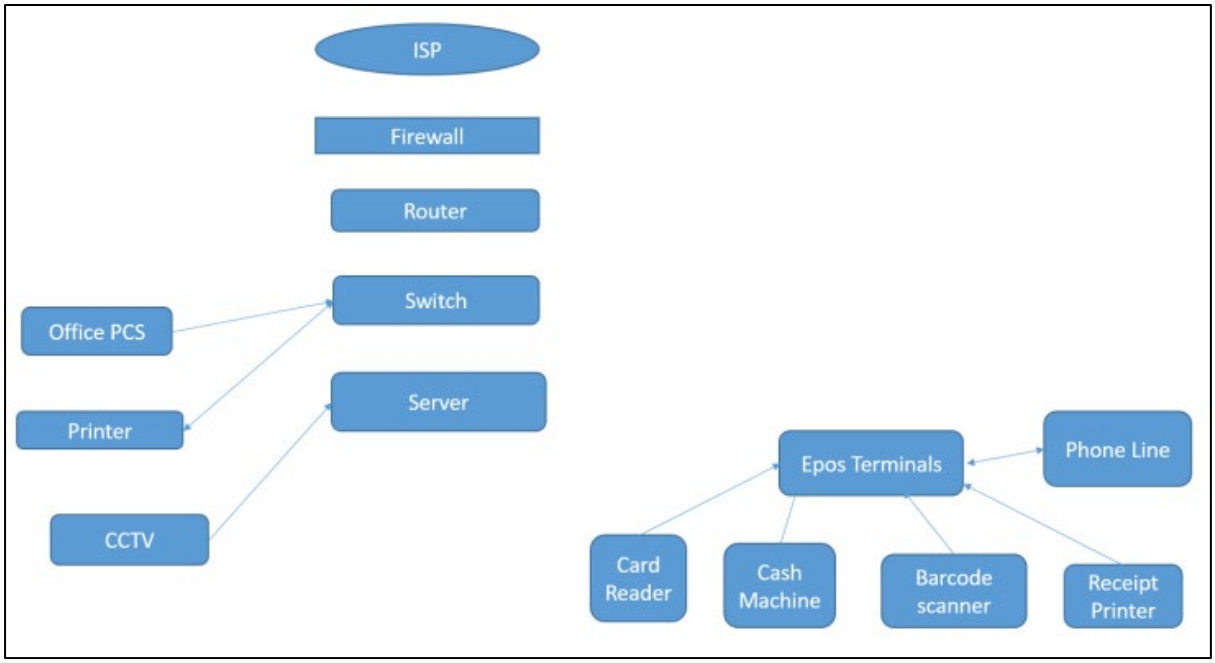
Office PCS

Connected via Ethernet cables to switch allowing best speed and security.
Windows 13
Core i7 processor
86gb ddr4 ram
1TB storage space

Server Requirements

Windows server
Core i7/i9 Processor
16/32gb ddr4 ram
167B+storage space

Employee Type	Information required
Owner	Payroll
	Customer information
	Employee Information
	Supplier Information
	Product Inforamtion
	Financial Information
	Epos Information
	CCTV recording
	Server Passwords
	Order details
	Employee Rotas
	Door locks


ISP
Firewall
Router
Switch
Office PCS
Server
Printer
CCTV
Epos Terminals
Phone Line
Card Reader
Cash Machine
Barcode scanner
Receipt Printer

Activity 4

(Management report evaluating the solution)

The learners should compare the recommended system to the initial organisation requirements, consider if it will enable all staff to undertake their job roles, and if there are any limitations. Learners should ensure they evaluate the complete solution including future developments. Evidence relating to alternative solutions that could be used was weak in the work of many learners.

Response 1

The learner has provided a developed justification of the appropriateness of the solution and has outlined appropriate alternatives for a range of aspects. A valid and supported rationale has been provided for alternatives discussed. The report demonstrates coherent and logical chains of reasoning that show a full awareness of the scenario.

The learner work would fit into **Band Mark 4 (10 – 12)** in the mark scheme.

Hardware

Appropriateness of solution	Alternatives	Justification
• Having a dedicated computer with 10th generation Intel Core i3 processor, Windows 10 pro, intel Integrated Graphics, 512 SSD and 8GB memory is appropriate as the owner needs a dedicated computer to do work on and these specifications allow them to do it unimpeached by hardware limitations as this PC is able to completely satisfy the expectations of the owner and will allow them to do these tasks without any limits	• An alternative to this solution would be to have a dedicated computer with 10th generation Intel Core i5 processor, Windows 10 pro, Intel UHD graphics -shared graphics, 1TB and 8GB memory. This PC is significantly more powerful and will allow the owner to have more applications open at once and with the 1TB of space more work is able to be saved onto the device.	• I have decided that my solution is better because the owner does not need a more powerful device than my original one presented as they both do the same thing and the 1TB of storage is not going to be that useful to the owner as he can send files out or onto the server making the extra storage close to useless. • The cost of the alternative is significantly higher than the original proposed solution by around £250 and since they are able run the same programs it's a fee which ultimately achieves nothing.
• Having a dedicated computer with an Intel Core i3 processor, Windows 10 pro, intel Integrated Graphics, 512 SSD and 8GB memory. This will allow the assistant manager to do everything that the owner	• An alternative to this solution would be to have a dedicated laptop an Intel Core i3 processor, Windows 10 pro, intel Integrated Graphics, 512 SSD and 8GB memory. These are the	• The reason that I have went with a PC and not a laptop is because the assistant manager is based in with the owner and will not need to go anywhere apart from the admin office meaning that

can and not threat the hardware requirements of doing financial calculations on a computer. These specifications are ideal for the assistant manager to do their job in helping the owner and head chef easily	same specs in terms of hardware but are a lot more portable to allow for the assistant manager to work from their own comfort and to go anywhere unprovoked.	the extra portability is nullified as they do not have to move anywhere. • This means you get all the disadvantages of a laptop like having to charge it regularly due to low battery life with none of the advantages. • Laptops usually also cost more even with the same hardware specs due to them being portable.
• Having a laptop with a 10th generation Intel core i3-1005G1 Processor, Windows 10 Home 64-bit, Intel UHD graphics -shared graphics memory 4GB,4Gx1, DDR4 and 2666MHz 256GB M.2 Solid State Drive will allow for the bar staff, head chef and host to comfortably use this laptop for any stock control reasons and allow them to use stock control software easily to manage their respective areas.	• An alternative to this solution would be to have a dedicated computer with an Intel Core i3 processor, Windows 10 pro, intel Integrated Graphics, 512 SSD and 8GB memory. The hardware specs are similar but it being a PC allows for no down-time when the device is charging and allows for more storage for the device used	• The reason I have went with my original solution is because they need to work on a laptop as multiple users are using it which means it will be more comfortable for the 3 staff members to share a laptop they can freely move around to their work areas and not have to go a specific area and stay there meaning they will not have to travel as much to update stocks.
• A suitable computer will have an Intel Core i3 processor, Windows 10 pro, intel Integrated Graphics, 256 SSD and 8GB memory with suitable inventory management software - Microsoft database. The intel core i3 processor should suffice for the basic tasks of the management staff as I believe that it can handle ordering spare parts and using the inventory management software without a problem	• An alternative to this would have to be to purchase a more powerful device for the staff to use like a dedicated computer with 10th generation Intel Core i5 processor, Windows 10 pro, Intel UHD graphics - shared graphics, 1TB and 8GB memory which would allow them to work with more programs open and possibly work faster due to the better processor	• The reason that I have went with the prior is because they do not need a high-end PC to do simple inventory management and the software is very easy to run so the increase in price for the alternative would be a waste of money and resources as it may be faster but they will not be able to use their software any better
• A suitable tablet to give to customers ordering food could be a 10-inch Android tablet computer 32GB Quad-Core 2 GB RAM. This tablet is portable enough that staff can easily carry it around with a problem as it would not be difficult or heavy to carry. The specifications of the tablet are enough to have any software installed on them to allow for the customers to order food from their desired location.	• An alternative to this would have to be the SAMSUNG Galaxy Tab A 8” Tablet – 28 GB. Which is smaller in size so it allows servers to easily transport them table to table and allow them to more easily take orders from customers	• The smaller tablets have a lot less space and are less powerful meaning that it could possibly not handle the software needed on the tablet • Due to it being smaller the menus may not fit on the tablet • The menus may be harder to navigate for the customers
• The digital menu board that I believe is suitable is the Network Digital menu board (screen size: 32” screen) this	• An alternative to this solution would be to use the Network Digital Menu board (screen size: 42”	• The reason I have went with the smaller digital menu board is because the larger one has significantly increase

menu board is big enough to easily have the attention of customers and to view information easier like available meals and prices of said meals. These can be used in the front of the restaurant to allow customer to be drawn to popular meals and allow them to decide what they want to buy faster.	Screen) This larger screen will mean that it is even easier to view information on them for customer and will be more eye-catching	costs which makes the cost-benefit of a larger screen size negatively impact the business rather than a positive impact • The larger one may be harder to fit into desired areas
• The Epos system will require a receipt printer, touchscreen monitor, cash draw, keyboard, mouse and a barcode scanner. All of this hardware will make it so that the Epos terminal has its full potential of taking orders manually. For this I recommend the Dell Optiplex USFF Base Unit Intel Core 2 Duo 250 GB/120GB SSD 4 GB 3 DDR RAM. This Epos system will allow for all the external hardware to work properly and will allow for the staff to take manual orders from customers as the touchscreen monitor will easily allow the staff to tap on what the customer ordered and quickly put it in for the kitchen staff to prepare.	• An alternative to this would be to use a standard cash register without the touchscreen monitors and in-built printers • Or to use the Sam4s Titan S160, 15”; touch screen terminal (2gb ram, 64GB SSD, Intel Celeron Dual Core N2807) This will allow for all of the previous functions to work correctly and allow for all the touchscreen positives like the faster time to take down orders.	• The reason my original proposed EPOS system is superior is because of the all in one nature as it has all the required components and a regular cash register will have to have to have the other hardware purchased separately. • For the other EPOS system however, they are both all in one but the alternative costs significantly more than the original proposed solution leading to a worse cost-benefit evaluation.
• A key card scanner with RFID should be implemented and replace the old lock and key method of entry for the maintenance room as in the document it states that the room is only “accessed with a key that does not provide much security” this brought to attention the security of the business which seems to be lacking. This key card scanner will make it more secure and allow for only authorised personnel to enter the maintenance room. This will also allow for the business to track who entered the room to ensure that if an incident did occur a suspect would be given quickly since the individual staff will have different key cards which would help identify who is in the room at what time.	• An alternative to this solution would be to use biometrics like for example face recognition, voice recognition and fingerprints. This will allow for even greater security and allow for the maintenance room to only be accessible by the correct staff as no one can steal biometrics from anyone as everyone has a unique set	• The reason biometrics are worse because even with the greater increase in security the cost is greatly increase as biometrics are very costly for even the most basic kind (finger print). • Also, you would need to create a database for all of the biometrics stored to allow certain staff into the room • Down-time is significantly increased as biometrics could take a lot longer to install than a simple card scanner.

Network

Appropriateness of solution	Alternatives	Justification
• The router I recommend is the ASUS RT-AC86U WiFi Cable & Fibre Router. This modern router will allow the business to easily connect to the internet and allow the business to function properly with company devices that need internet access getting it like the PC's, Laptops, tablets and etc. These devices will become more effective with the internet and allow staff to do their jobs correctly, like the bar staff, head chef and host will now be able to update stock records accordingly and will be able to take orders online as to counteract any stock issues that they may be having with ingredients/products.	• An alternative to this router would be the TP-LINK Archer VR2800 WiFi Modem Router- AC2800. • This will allow for all the significant improvements that a router can bring like connecting all of the company devices to the internet though the router	• This is an older model of a router as it is described as a Modem meaning that its security could be significantly worse even with the cheaper price meaning possible intrusions into the system as security patches could have been missed or it is no longer supported by the manufacturer
• The server that should be used is the ASUS Xeon E Tower Server – TS300-E10 i3 16 GB RAM 2TB. This server will allow the staff to view relevant data it would be more difficult and inefficient to have staff send the data to each other instead so a centralised location with all the data that the staff may need is very important for the company to work efficiently. The 2TB of space on this server allows for a lot of potential documents/data being stored on their and it ensures that no extra storage will have to be purchased for a while.	• An alternative to this would be the HPE P11052-421 – ProLiant ML350 Gen10 server 2.2 GHz Intel Xeon Silver 4214 Tower 800W with 1TB of storage. This functions similarly to the original solution but at a cheaper price point	• The reason my original solution is better is because of the increase in storage as 2TB is standard for a server that is going to be in use and the number of devices with lower storages on the system means that the server will have to make up for it so 1 TB of storage will not be enough for the network to function effectively.
• A switch that would be appropriate for this is the TP-LINK TL-SG1024D 24 Port Gigabit Switch. This switch allows for up to 24 devices being connected to it at once allowing more flexibility and versatility in the network. A switch is useful as it allows for possible expansions of the network with more devices with its lenient 24 port connections.	• An alternative to this is the N8560-64C, 64 Port L3 Data centre switch. • This will allow for a significant increase in the devices that are able to connect to it and consequently to the internet from the router	• The reason my solution is better is because there are not enough devices to justify the extra amount spent on the alternative as 64 slots is a bit excessive for the current network but for expansions it may be worth purchasing but as it stands right now it is pointless

Software

Appropriateness of solution	Alternatives	Justification
• Microsoft spreadsheets/excel can be used to store and manage information to allow for the correct collection and storage of sensitive data/information. This will allow for more productivity in the businesses as it would make it possible to view relevant information quickly for any staff members, this allows them to do their jobs faster and allows them to work more comfortably.	• An alternative to this would be to use google spreadsheets which is a free alternative to Microsoft spreadsheet with similar functions	• The reason my alternative was worse is because Microsoft spreadsheets even if its paid has a significant more and easily accessible number of features compared to google spreadsheet • Also google spreadsheets require the internet to access the data meaning that if the internet went down you won't be able to access your files
• A stock control system that I have chosen is Microsoft database as without it the head chef and host won't be able to update stock records and place orders online to replace low stock counts of products/ ingredients meaning that changing stock will be harder to do and will lead to a decrease in productivity and this coincidently will lead to even high stock counts being a problem as the company could buy too much stock of a certain product and overpay for stock they already have.	• An alternative to this would be to use Xero which allows for inventory management software to work similarly to Microsoft database	• The reason my original solution is better is because Xero is paid and has less features however with Microsoft office you can get Microsoft database and all other essentials for a better price • The Microsoft option has more features to allow for easier and more distinguished inventory management

Legislations

Appropriateness of solution	Alternatives	Justification
• The GDPR/ DPA should be followed at all times ensuring that customer data is acquired and processed in a lawful way to ensure that the customer feels that their data is secure, it must also be processed in a lawful and transparent way meaning that the company must inform customer if their data is being used for anything and being transparent with customers is important to build trust and integrity for the company. Customer data should also be up-to-date meaning that customers have to update their data if needed to ensure that the company has the correct data for the customer. This ensures that no lawsuits can be made against the company and that no fines	• The alternative to this would be to not follow the GDPR and will allow for easier access to files and will ensure that productivity rises in terms of working hours.	• Not following these laws will lead to either a massive fine or a lawsuit against the company which will lead to financial and reputational loss meaning that it will be harder to get future customers

are distributed as the company took all possible measure to ensure that customer data is not accessed by any unauthorised persons.		
• The computer misuse act should be followed at all times by the company to ensure the protection of information held by organisations from unauthorised access of computer material. It is high priority that the company follows this law for the customers to once again ensure that no lawsuit can occur from such a breach of data. This ensures that no unauthorised access can occur on staff devices by unauthorised personal even if that's other members of staff.	• The alternative would be to not follow the computer misuse act and allow for the access of unauthorised personnel on staff devices	• Not following these laws will lead to either a massive fine or a lawsuit against the company which will lead to financial and reputational loss meaning that it will be harder to get future customers
• This law must be followed by the company and coincidently the website that it creates as This law is mainly referring to the website advertisements or the digital menu boards as they have to be accurate and ensure that customers get what they paid for. Misleading customers into purchasing a product which is nothing like what it is presented as or misinforming customers on products that you sell is reprimandable by lawsuits and it is in the best interest of the company to not misinform customers	• The alternative to this is to not follow the consumer rights acts meaning that you could misinform customer from the website or other sources	• Not following these laws will lead to either a massive fine or a lawsuit against the company which will lead to financial and reputational loss meaning that it will be harder to get future customers
• This law must be followed by the company to ensure that the safety of customers and staff is not being tested. This refers to the training that staff get with devices/ equipment to ensure that it is safely being used but also ensuring that staff do not put their work in front of their health like spending hours in front of a monitor which could lead to eye sight loss or back issues due to bad posture. This law ensures that frequent breaks are issued to prevent the health of staff deteriorating over-time.	• The alternative to this is to ignore these laws and not specify breaks for staff hurting their personal health	• Not following these laws will lead to either a massive fine or a lawsuit against the company which will lead to financial and reputational loss meaning that it will be harder to get future customers

Response 2

The learner has partially justified the appropriateness of the solution. Consideration of alternatives is restricted to only a few examples and lacks sufficient support. The report demonstrates limited reasoning and shows minimal awareness of the scenario.

The learner work would fit into **Band Mark 1 (1 – 3)** in the mark scheme.

Rodri's Restaurant Management Report on Solution

My solution aims to provide Rodri's restaurant with suitable technology to manage their needs in a safe and efficient manner.

The included server and backup server allow the business to host a modern website, while also connects the software clients used on the individual devices. The servers combined with the OneDrive cloud storage program provide safe backups and remote access to meet the restaurant's information and data storage requirements.

The provided modern workstations with Windows 10 Pro make it easy to manage all the hardware and software needed. Using Linux instead of Windows could provide significant cost-savings, but I believe that the ease of use of the Windows solution is worth the extra cost.

The solution also includes the requested digital menu board and digital kiosks to allow easy ordering directly from the customers tables. I also included tablet devices with kitchen display system software to make communication between the servers and kitchen staff more efficient. This, I believe is going to be far more effective than the server manually writing down each order on paper.

The solution also aims to provide the restaurant with modern safety and security features. The CCTV camera and alarm system provide greatly improved security. I chose cameras that run on batteries to protect the system from power outage. Alternatively, a hybrid camera system with both wired power connection and built in batteries could reduce the need for charging the batteries making maintenance work easier.

Adding a hardware firewall to the system has been proposed to increase security. This can be considered too expensive, and the customer might judge a software-based solution to be adequate.

Advanced Anti-virus and VPN solutions have been provided for increased security. However, these are optional and could be skipped to decrease the cost of the service. A network connection without VPN while using only the anti-virus features included with Windows 10 could be judged to adequate for the business.

Further cost saving could be achieved by omitting the digital kiosks, instead opting for a suitable smartphone application for customers to submit orders. However, this would require customers to own a smartphone and install the required application themselves which increases barrier of entry and would deter many guests from using the service. Therefore, I believe that the digital kiosks are worth the extra price.

The solution includes Microsoft Office and Adobe photoshop to manage documents and image files respectively. These are well established software that are more than powerful enough to do the job, but freeware solutions exist too, for example the OpenOffice suite.

In conclusion I believe that my solution meets the client's requirements in a cost-effective and safe way, but further changes might be necessary.

Activity 5

(IT service management implications report)

Learners are required to analyse the implications of managing IT service delivery for the requirements of the organisation, by considering how the implications will affect the restaurant. Evidence demonstrating the solution's capacity to respond to change was weak in the work of many learners.

Response 1

The report demonstrates appropriate consideration of the implications of the solution, giving an understanding of the restaurant's capacity to respond to change. The report demonstrates logical chains of reasoning that shows an awareness of the implications for the organisation.

The learner work would fit into **Band Mark 3 (9 – 12)** in the mark scheme.

Implementing your solution and delivering the organisation's services and products
When you are implementing the solution provide Rodri's would need to worry about the downtime and that they will have no system once they have started to change to our system that re have recommended to them. They will also have to worry about training up the staff as well because whenever a new system is in place within a business it is always recommended that trains should be done as soon as possible. However this might not be easy for all staff members as some may only work part time and have another job somewhere else or some may be students in which they have to spend more time studying. This means that there may have to be multiple days where the restaurant is closed so that everyone can be trained before they reopen or they wait for a time in which everyone can be trained at the same time but that runs the risk of some staff not using the new equipment properly and the IT maintenance team needs to fix whatever has been done. A problem that Rodri's might run into is a limitation on how much money they can spend on the new hardware, software and training for the staff on how to use any of these new changes. some new hardware can be expensive so perhaps it may be better to not purchase any kind of mobile ordering screen as they can expensive and they might not be used much which means that they aren't of that much value to the business. Another problem that could arise would be the technical limitations of implementing the new software and hardware. This could things such as old important documents not being able to be transferred which could possibly lead to legal problems. another problem could be that staff just don't know how to use the new hardware even after training and that could cause a lot of problems, such as customer data not being saved properly which could lead a problem in breaking the data protection act

Managing and supporting employees
Remote support software such as Zoom/Google meets is always useful if there is a member of staff working from home or if the it team is contracted in and don't work in the same building as the rest of the staff. This is because if there is an important piece of equipment such as the shared laptop is down then it would take a while for one of the members to reach the building, but with remote support software then they can solve the problem remote without having to

waste time driving to the restaurant.

Another way remote support software can be useful is in E-learning. This is so that if there are some members of staff that cannot make it to a training day then they can use this software and attend the meeting from home. It can also be used to set the work remotely so that if anyone can't attend the meeting online then they can still do the work once they have free time.

Managing and supporting the organisation's customers

The data protection act is a way that the organisation can support its customers. This act makes sure that every piece of a customer's data is kept secure, processed fairly, that they will only keep it for the time they need it and it will only be used for the provided reasons.

The computer misuse act makes sure that any of the employees at Rodri's use the new devices for the purpose that they are intended for, such as the shared laptop being used to make files such as the menu, keeping inventory etc. and not for malicious purpose such as selling off customer data to other companies. Anyone caught breaking this act can be fined and can be sent to jail.

A website for the business can help customers quite a lot. It can provide information on menus, opening times, any openings for jobs and it can give customers a way to easily access reservations, deals and an easy way for them to communicate with the staff/owner.

Managing the organisation's IT assets

It may be more beneficial to hire a personal IT team instead of doing what they were previously doing in contracting out. this is because it may be cheaper in the long run depending how expensive it is to contract out compared to how expensive it is to hire and maintain your own team of IT technicians.
If the owner does decide to hire his own IT maintenance team then he would need to purchase computers for them and he would also need to purchase the software necessary for them to do their job efficiently

The owner could purchase some network monitoring software to be able to help them so that they could monitor remotely from where they are working from.

Ability to respond to changes in the aims of the organisation, and the products and services it provides

Rodri's could grow to be quite a large organisation and the newly implemented system might not be able to be expanded to fit the needs once it has grown. This would mean that a new system would once again have to be fitted in and the downtime on this would be larger as the business would be bigger.

The business could also change to include deliveries eventually a new app would be useful in that it would allow people to easily order food. This app would be overall helpful anyway without deliveries as it could provide information that might you might not be able to find on the website. it could also be a way of being able to reserve a table prior to your arrival so that you can guarantee a place so you don't waste a trip to find out all the tables are gone.

Response 2

The report demonstrates limited reasoning that shows minimal awareness of the implications for the restaurant.

The learner work would fit into **Band Mark 1 (1 – 4)** in the mark scheme.

Implementing your solution and delivering the organisation's services and products
If Rodri's restaurant implemented my solution I think it would improve the business greatly. It would allow for a faster process when it comes to getting customers into the restaurant, serving them and them leaving the restaurant, this would allow for more daily customers which would improve profits as there will be more sales. For example, the website would allow customers to book tables, pre order food and even order food for collection or takeaway. The digital Menu which was one of Rhodri's requirements would allow for customers to order food directly from there table, this decreases the wait time for customers to order food as they don't have to wait for a waiter.

Managing and supporting employees
If my ideas do get implemented then the employee's are going to have to adapt to the changes, for example all the staff which will be using desktop pc's to conduct work will need to have good knowledge of the misuse of computers act as they have to follow this law correctly. Another example is that the waiting staff will have less work to do if these digital menus are used correctly and work as efficient as I think they should, this means they could be assigned other jobs such as work on the bar or if the restaurant decides to implement the delivery drivers then they could assist them with online orders.

Managing and supporting the organisation's customers
The customers of Rodri's restaurant will benefit from these ideas I've suggested, for example most customers want a smooth and efficient service, this is guaranteed when dining at Rodri's since the digital menu's decrease the waiting time for customers orders, the digital specials board can be the deciding factor for some customers.

Managing the organisation's IT assets
Managing the organisation's IT assets is the most difficult part for the business to handle, they must train staff to use these IT systems as well as they have to ensure everything is working up to standard. For example, someone is going to need to know how to access the CCTV footage in case of a crime, another example is that someone will need to know how to set up a firewall or a VPN to prevent malicious attacks. All this will cost the business money to train their staff, they also need to train them to learn the computer misuse act as this is a

law which all business has to follow when using IT devices.

Ability to respond to changes in the aims of the organisation, and the products and services it provides
Rodri's restaurant would have to change the way things are run to adapt to my implementations. For example, if they decide to do the delivery's then they would need to invest into delivery card, delivery drivers and even create a section on there website where people can order from. It will cost them some money to set it all up but in the long term I think it would return good profit.

Summary

Based on performance on this paper learners should:

- Ensure they cover all aspects of the scenario; including all software requirements as well as the hardware, to enable them achieve marks in the higher mark band ranges.
- Apply knowledge and understanding to a variety of sectors. The paper will always contain the same five activities with just a different sector.
- Learners should be encouraged to practice writing evaluative reports for other areas of study, and make sure they evaluate the whole proposed system including future developments.
- Learners should develop a better understanding of implications of installing or upgrading a system, such as downtime, training, cost, etc. to ensure they do not produce an evaluation instead.

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