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## **Sample Assignment: Unit 10 Numerical Modelling using Spreadsheets**

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### **ASSIGNMENT 2 – THE PIZZA HOUSE PROBLEM**

This assignment will allow you to meet all of the assessment requirements for Unit 10: *Numerical Modelling Using Spreadsheets*. You should look at the Assessment Evidence Grid to check what you need to demonstrate in each task to achieve each mark band.

#### **The Problem**

'Perfect Pizzas' wish to automate their ordering, receipt and stock control system.

#### **Core Requirements**

An automated ordering system, where customers make their order selections at a computer screen. The cost of their order is calculated and a receipt printed. The stock levels of the ingredients are adjusted with each new order, and a list of ingredients that require ordering is generated at the end of each day.

#### **Input Data**

- Menu of pizzas (types of base, size of base, toppings)
- Home delivery, eat in or takeaway
- Price structure.

#### **Processing and Modelling**

- Method to calculate price of order
- Stock control modelling.

## **Outputs**

- Price of orders
- Daily re-ordering list.

## **Facilities and User Aids**

- Drop down data entry boxes to make pizza selections
- Validation of ordering information
- Comment boxes to explain how to use data entry facilities
- Macros to initiate calculation of order price
- Macros to initiate new stock levels and generate daily re-ordering list.

## **Extensions to the Solution - Adding Extra Functions**

- Database of all regular customers
- Ability to add new customers to the database
- Ability to add new toppings
- Ability to adjust pricing structure.

## **Extensions to the Solution - Making the Modelling More Sophisticated**

- Different pricing systems to reward regular customers, customers at off-peak times, customers ordering large orders
- Facility to predict likely turnover for the day based on current orders.