UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International Diploma in ICT
Advanced Level

Scheme of Work

5206
Website Programming
Optional Module

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International Examinations

Introduction

This optional module is about creating a form for use on the Internet, which is to be used for gathering, storing, displaying and outputting user information.

What is assessed in this module?

- design and creation of a data input form
- data validation
- storage of data
- extraction of stored data
- display of extracted data
- saving and printing of document
- saving and printing of source code

Tutor preparation required to Deliver this Module

Provision of:

- web server facilities
- database access
- a web browser
- HTML and script editor/s
- appropriate documentation from 'General Principles and Procedures' below

Underpinning Knowledge

- reasons for using server side scripting
- differences between client-side scripting and server-side scripting
- knowledge of HTML
- database creation
- extraction of data from a database

General Principles and Procedures

In preparation for this module you could produce notes on the following topics:

- creating forms using HTML
- commonly used form elements
- server side and client side scripting
- the concept of strings, and using scripting with string functions
- the use of server side scripting to
    - display data from an input form
    - store data from an input form in a database
    - retrieve data from a database
    - display retrieved data in a web page
    - validate strings
    - validate numbers

Scheme of Work

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Website Programming				
Session Plan One				
• create data entry form • display data	1.1.1 1.1.2 1.1.3 1.1.4 1.1.5 2.3.2	• create a very basic input form as specified • use server-side scripting to extract the input data and display it • create a page on which to display the data • create a form which includes a list box, option buttons, check boxes • display data from form on a separate page, accessed by clicking on the submit button	• web server, script editor, web browser • documentation for exercise 1	• a very simple form could be created to collect a person's name, and then display it on another page when the user clicks on the submit button. A reset button could also be included • provide guidance on commonly used form elements • exercise 1 could be used - additional form elements could be added to produce a simple online questionnaire
Session Plan Two				
• store data • extract data • display data • store data • save and print document	3.1.1 2.2.1 2.2.2 2.3.2 4.1.1 4.1.2	• create a database to store information from an input form • extract the specified data, and display in a web page • save and print the output page, and annotated source code and script	• web server, script editor, web browser • create a database in which to store form data • ensure that the database is accessible for data storage and retrieval • instructions for saving and printing	• the activity could be continued from session plan one, and the data from the input form could be stored in the database, then displayed in a simple web report in HTML format

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Three				
• create data entry form • validate data • display data • save and print document	1.1.1 2.1.1 2.1.2 2.3.1 4.1.1 4.1.2	• create input form • use scripting to validate string and numeric data to be input • create an error page, and a confirmation page • annotate source code and script as specified • save and print	• web server, script editor, web browser • string and numeric data for validation checks • instructions for annotation of source code and script • instructions for saving and printing	• create a data entry form which should include string data which can be manipulated using string functions, and checked for validity • include numeric data for validation checks • provide guidance on server-side scripting functions for working with strings, and how to perform validation of strings and numbers
Session Plan Four				
• create data entry form • validate data • extract data as specified • display data • store data • save and print document	1.1.1 1.1.5 2.1.1 2.1.2 2.2.1 2.2.2 2.3.1 2.3.2 3.1.1 4.1.1 4.1.2	• create a guest book • use scripting to validate string and numeric data to be input • create a database for storage of input data • retrieve and display specified data • create an error page, a confirmation page and a summary page • save and print	• web server, script editor, web browser • documentation for exercise 2 • instructions for annotation of source code and script • instructions for saving and printing	• exercise 2 could be used • ideas for a guest book could be acquired by searching the internet, and comparing designs currently in use
Session Plan Five				
• undertake Advanced Website Programming Module Specimen paper	All	• use for assessment of student	• specimen assignment • assignment resources	• provide necessary documentation and resources as required by the specimen assignment

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Six				
		• debrief • further practice	• marked papers, for return to each student	
Session Plan Seven				
• undertake Advanced Website Programming Assessment		• Advanced Website Programming Assessment		