SBA Guideline

Option B (Web Application Development)

Online Store

You are a shop owner. You want to open an online store on web for your customers. Staffs can add products and see orders on the staff interface. Guest can see the product without register. Customers can login to purchase and see their order history in the customer interface.

Task 1 (Design & Implementation) (25 marks)

Create a prototype of the dynamic web site with one or more web pages.

You may want to consider some of the following key factors when designing the prototype:

- web site structure / sitemap
- client interfaces, consistent look and style across web pages
- use of multimedia elements
- hardware, platform, language and colour compatibility
- web accessibility
- data input, update and retrieval
- data validation and use of cookies
- client-side and server-side scripting
- different web designs, such as print version and responsive design

Create a documents to briefly describe the components involved in designing the prototype.

Task 2 (Testing & Evaluation) (15 marks)

Referring to the prototype of the dynamic web site, complete the following tasks.

Conduct a test of the prototype. Collect and record the feedback and results of the test.

Either   (i)   make one major change in the web page design and illustrate the corresponding improvement,

or   (ii)   describe how the scope of the prototype could be extended.

Create a presentation and/or documents to illustrate the dynamic web site. You may want to consider some of the following:

- pros and cons of the web site design
- whether editing multimedia elements compromises the environmental factors of the web site
- methods of maintaining a consistent look and style of web pages
- client-side and server-side scripting
- how the prototype meets the criteria for a good web site
- how the evaluation of the prototype can help to improve the web site

Assessment Criteria (Suggested by HKEAA)
Task 1 (Design & Implementation)

Performance	Description
High (17 – 25 Marks)	• Creates an innovative design for the solution. • Demonstrates effective ICT skills in the appropriate use of resources. • Demonstrates appropriate ICT skills coherently. • Demonstrates effective and comprehensive data/information collection, capture, and input. • Demonstrates effective and comprehensive data/information verification and validation. • Demonstrates effective, efficient, and comprehensive data/information processing. • Creates an appropriate output format of the deliverables that can easily be tested as a solution to the problem.
Middle (9 – 16 Marks)	• Provides some new ideas in designing the solution. • Demonstrates ICT skills in the use of resources with understanding. • Demonstrates appropriate ICT skills adequately. • Demonstrates reasonable data/information collection, capture and input. • Demonstrates reasonable data/information verification and validation. • Demonstrates reasonably good quality of data/information processing. • Creates an output format of the deliverables that can be tested as a solution to the problem.
Low (0 – 8 Marks)	• Produces a plain design of the solution. • Uses resources with relevant ICT skills. • Demonstrates appropriate ICT skills occasionally. • Demonstrates an awareness of the necessary data/information collection, capture and input. • Demonstrates an awareness of the necessary data/information verification and validation. • Carry out data/information processing relevant to the problem. • Creates an output format of the deliverables that can be partially tested as a solution to the problem.

Task 2 (Testing & Evaluation)

Performance	Description
High (11 – 15 Marks)	• Records test results comprehensively according to the testing plan with quality metrics. • Demonstrates a comprehensive methodology in testing and evaluation. • Suggests and explain improvement made as a result of testing. • Conducts corrective/preventive actions logically. • Evaluates the effectiveness of the deliverables relative to the environmental factors. • Presents the findings using a systematic style and appropriate terminology. • Organises and present the objectives and original thought effectively. • Reflect the student's learning process effectively.
Middle (6 – 10 Marks)	• Records test results generally according to the testing plan. • Demonstrates a general methodology in testing and evaluation. • Suggests some practical improvement. • Conducts some corrective/preventive actions appropriately. • Evaluates the effectiveness of the deliverables relative to the partial environmental factors. • Presents the findings with a comprehensible and sensible style. • Expresses ideas and visions successfully. • Reflects the student's learning process.
Low (0 – 5 Marks)	• Records some test results. • Demonstrates a basic methodology in testing and evaluation. • Attempts to improve the deliverables. • Attempts to evaluate the effectiveness of the deliverables. • Presents the findings with text and illustration.

Guideline

Name:		Date:	
HKDSE ICT SBA Task 1 Guideline		**Mark**	**Total**
Topic:			
• Creates an innovative design for the solution. • Demonstrates effective ICT skills in the appropriate use of resources. • Demonstrates appropriate ICT skills coherently. • Demonstrates effective and comprehensive data/information collection, capture, and input			
1.	Web site structure / sitemap		**1**
2.	Interface/layout design		**5**
3.	Graphics design (Logo, banner, promotion, product showcase)		**10**
4.	Video editing (Animation, Promotion)		**5**
5.	Using CSS design		**5**
6.	At least 5 different multimedia elements		**5**
7.	Navigation (CSS)		**4**
8.	Hyperlinks, JavaScript		**5**
9.	At least 15 pages of content, different elements / functions to fit the topic (news, promotion, discounts, search, filter, customer services, etc.)		**10**
10.	Web Accessibility, Compatibility		**10**
• Demonstrates effective and comprehensive data/information verification and validation. • Demonstrates effective, efficient, and comprehensive data/information processing. • Creates an appropriate output format of the deliverables that can easily be tested as a solution to the problem.			
11.	Register Form		**5**
12.	Login Page		**5**
13.	Staff Pages (Interface, add product to store, check customers' order)		**5**
14.	Customers Pages (Interface, profile, shopping cart, order history)		**5**
15.	Data/Information verification and validation		**10**
16.	Extra functions: Rating, Favorite product, customer feedback/comment, points system, etc.		**10**
Feedback:			