



**ASIA PACIFIC UNIVERSITY OF TECHNOLOGY AND INNOVATION**  
**MOBILE & WEB MULTIMEDIA**  
**INDIVIDUAL ASSIGNMENT**

**Intake** :  
**Lecturer** :  
**Date Due** :  
**Date Assigned** :

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**LEARNING OUTCOMES**

On completion of the module you should be able to demonstrate the following learning outcome:

- Construct appropriate mobile web multimedia application (C6, PL03)
- Report effective reasoning on the technologies utilized in the application (A3, PLO4)

**PROJECT TITLES**

You are to produce a Web based application to be used on a mobile device.

You have been appointed as a mobile Web applications developer in an organization which specialises in designing and developing mobile Web applications. The company you are working in has a great opportunity to secure a contract with a large client. However, your client requests you to design and build a mobile Web application to allow consumers to purchase their products/services online.

You must understand the client's requirements and develop the mobile Web application.

You are allowed to choose **ONE (1)** of the following application:

- Online Food Ordering
- Online Grocery Shop
- Online Lifestyle Shop
- Online Retail (wear, gadgets, tools, etc. )
- Online Ticketing System

Your task in this assignment is to create an interactive and dynamic website using .NET technologies. You will need to meet various implementation requirements, but the actual content of the website is entirely up to you. The goal is to create a relatively small application that is extremely well designed, architected and implemented.

You are required to complete this assignment entirely by yourself. The website should consist of following **web pages** listed below.

1. Member Registration
  - a. Login
  - b. Manage Profile
2. Administrative Functions (Website Management)
  - a. Manage Users (RUD)
  - b. Manage Products (CRUD)
  - c. Manage Categories (CRUD)
  - d. Manage Orders
    - i. Pending
    - ii. Cancel
    - iii. Delivery
    - iv. Delivered
3. Product Catalog
4. Shopping Cart
  - a. Current
  - b. History of purchases
5. Payment Support
6. Product Delivery
  - a. Pending
  - b. Sent out for delivery
  - c. Delivered
7. Customer Feedback
  - a. Giving ratings to the product/transaction

The mobile website must demonstrate good usage and appropriateness of multimedia element. You are expected to provide a suitable interface by applying design principles and a fully functional navigation component.

## **REQUIREMENTS**

You are required developed a detailed requirements specification for the website. The website must fulfill the basic requirements described below:

1. The focus of this assignment to develop a mobile web interactive and dynamic website
2. Your Web application should be able to be viewed in any standard Web browser, such as Microsoft Edge, Chrome, Mozilla or Opera. This means that you should produce only standard HTML and ECMA script for client-side processing.
3. Your Web application should store information in a server-side SQL Server database. Your Web application should both read and write this information.
4. The mobile Web based system application with user guide.

5. It is strongly recommended that you develop your application in an incremental fashion, where you first develop a working system that meets all of the minimum requirements before contemplating any of the optional requirements.

In addition, the website must fulfill the following criteria; i.e. it should:

1. Consist of 10 - 20 interlinked Web pages.
2. Demonstrate good usage of standard XHTML 1.0 or HTML5 elements.
3. Demonstrate good usage of standard Cascading Style Sheets (CSS 2.0 & 3.0).
4. Display appropriate and quality contents.
5. Demonstrate database connectivity & processing.
6. Using AttachDBFilename option for Microsoft SQL database. The database must be created in App\_Data directory within the root directory of your website. The connection string must store in the website configuration file, web.config. This is to allow graders to test and run the website with zero or minimal settings.
7. Contain a registration page for new members.
8. Protect & restrict access to website resources using ASP.NET forms authentication and authorization.
9. Create and use ASP.NET Web forms user controls.
10. Make use of advanced Web controls such as Repeater, DataList, DetailView, GridView, and etc.
11. Use data binding to link Web controls to data sources.
12. Contain “member only” pages (require a valid login) to modify member profile, add to cart, view and update cart and perform relevant tasks which are permitted to members only.
13. Contain “admin only” pages (require a valid login) to maintain the database & perform administrative tasks.
14. Perform form validation.
15. Contain a feedback form for visitors to give their comments and suggestions.
16. Provide appropriate navigation support.
17. Perform proper file organization and naming convention.
18. Contain a static HTML page named ReadMe.html that displays the following:
  - A list of any (admin) user names or passwords that might be required by graders to test your Web application.
  - A summary to setup & configure your website
19. Run and test on a standalone Windows PC with Visual Studio and MS SQL Server Express.
20. Be viewable on multiple browsers and settings, and on any operating system. This means that you should produce only standard XHTML, CSS and JavaScript for client-side processing.

Note:

1. Your application should be accessible via a mobile browser regards of the type of mobile device.
2. The usage of Web page creation tools is permitted.
3. Verification for online payment is not required.
4. All other conditional checks that are necessary should be included.

## **DOCUMENTATION**

The documentation should be in a standard report format with appropriate header and footer. There must be a cover page stating your name and ID. The documentation should contain at least 2000 words. The documentation needs to be submitted in Moodle. All other necessary project files to run the website should be submitted to Moodle as a zipped file.

The documentation should include the following:

1. Styles & Formats
  - Type face: Times New Roman/ Arial. Bold face, italic & lines can be used for emphasizing and to enhance readability
  - Font size: 12(except tittles and headings)
  - Margins: 1” from the left, right, top & bottom of the edges of the A4 paper
  - Spacing: maximum 1.5 lines between texts of a paragraph
  - Alignment: full justify
  - Headers and footers can be used
  - Each page must be numbered
  - APA Referencing should be followed.
2. Cover page, your cover page should contain the following items
  - Your name and ID
  - Intake code
  - Subject
  - Project title
  - Date assigned (the date the report was handed out)
  - Date completed (the date the report is due to be handed in)
  - APU logo
3. Recommended Content
  - Acknowledgement
  - Table of Contents - The table of contents should have the topic title and reference page number attached to each topic.
  - Introduction or Project Plan - This section introduces your project including the background information of the Web site, and objectives, scopes, targeted audiences, project schedule and a summary of the major functions of your Web site.
  - Requirement Specification - This section defines the needs or conditions to meet requirements of the various stakeholders, such as beneficiaries or users.
  - Design - The section defines the database structures, interface design, website architectures, Web page descriptions and etc. You are required to discuss the design decisions made and the reasons for them.
  - Implementation
    - i. Factors related to the design of the user interface.
    - ii. Factors related to the development and organization of the system for real-world deployment and its implications.
    - iii. Discuss the steps on how you implement the system.
  - Conclusions – This section reviews and evaluates the works you have conducted. You can validate the website whether it has achieved the formulated objectives. Also, you are required to discuss limitations of the website and ways to address these issues in the future.

- References
  - Appendices
4. User Manual
- A list of any (admin) user names or passwords that might be required by graders to test your web application.
  - A summary to setup & configure your website.
  - A simple walkthrough to use your website.

### **SUBMISSION**

1. All documentation must be submitted online to Moodle.
2. All other necessary project files to run the website must be submitted to Moodle as a zipped file.

### **PRESENTATION**

You are required to present your website to the lecturer, and the presentation will be judged accordingly.

**ASSESSMENT CRITERIA**

The assignment has a weight of 100%. Your effort will be assessed based on the following criteria.

No	Criteria	Mark Allocated	Score
<b>Documentation (100/200)</b>			
1	Introduction	20	
2	Requirement specification	20	
3	Design	20	
4	Implementation	20	
5	Conclusion, Document Styles and Formatting & User Guide	20	
			<b>0</b>
<b>Implementation (100/200)</b>			
6	Display Record (Dynamic content, Product catalog, & etc.)	20	
7	Insert Record (registration, add new product, add to cart & etc.)	20	
8	Update & Delete Record (manage profile, products, shopping cart & etc.)	20	
9	User Authentication & Form Validation	20	
10	Mobile Web Layout & Appearance, Navigation design, content of the website and usability of the web pages	20	
			<b>0</b>
	<b>Total Marks</b>	<b>200</b>	<b>0</b>
	<b>Percentage (%):</b>	<b>100%</b>	<b>0.00</b>
	<b>Presentation (10/10)</b>	<b>Mark Allocated</b>	<b>Score</b>
1	Presentation	<b>10</b>	

## **GRADING CRITERIA**

Performance Indicators & Marking Guideline:

<b>Grade</b>	<b>Indications</b>	<b>Score/10</b>	<b>Score/20</b>
<b>Distinction &gt;70%</b>	<ul style="list-style-type: none"> <li>Distinctive work will exhibit a high level of penetration in analysis and design, outstanding and clarity in communication, design and implementation. The supporting report should be exceptionally well-substantiated in its analysis, reasoning, and conclusions with each area.</li> <li>In addition, at the advanced level the student will demonstrate an exceptional ability to synthesize innovative perspectives of the topic with work from other parts of the discipline.</li> </ul>	9-10	16-20
<b>Merit 65-74%</b>	<ul style="list-style-type: none"> <li>Student should be able to show further evidence of knowledge, understanding the module material through analysis, design, prototype and implementation of the Web site. The supporting report should be well written and supported throughout in its analysis, reasoning and conclusions.</li> <li>An advanced level will be indicated by student's reference to an integration of materials from previous programs of study.</li> </ul>	7-8	12-15
<b>Pass 50-64%</b>	<ul style="list-style-type: none"> <li>The student will show the ability to apply appropriate techniques for analysis, design, prototype and implementation of the Web site.</li> <li>There should be satisfactory evidence of knowledge, understanding the application material in the supporting report.</li> </ul>	5-6	10-11
<b>Marginal Fail 40-49%</b>	<ul style="list-style-type: none"> <li>Work at this level will generally be of low standard where it may even fail to meet at least 50% of the basic requirements listed above. Work at this level is not documented adequately, lacks referencing and does not display proper program structure would fall in this category. During demonstration of the project, the student is not able to explain briefly the work that has been done.</li> </ul>	3-4	6-9
<b>Fail 0-39%</b>	<ul style="list-style-type: none"> <li>Work at this level will generally be of very low standard where it may fail to meet at least 20% of the basic requirements listed above. Work at this level is not documented adequately, lacks referencing and does not display proper</li> </ul>	0-2	0-5

	program structure would fall in this category. During demonstration, the student is not able to explain briefly the work that has been done.		
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