Project Specification

Site:	Eduvos Learning Management System		Printed by:	Inge-Lise Wessels
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Book:	Project Specification			

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1. Project Specification

Faculty:	Information technology
Module Code:	ITECA3-12
Module Name:	Web Development and e-Commerce
Module Coordinator:	N/A
Internal Moderation:	Community of Practice
Copy Editor:	Kyle Keens
Total Marks:	100
Deliverable 1 – Project Proposal (9%)	Block 1 Week 3
Deliverable 2 – Documentation and Coding (12%)	Block 2 Week 4
Deliverable 3 – User Manual and Presentation (30%)	Block 2 Week 5
Project Resubmission	Block 2 Week 6

This module is presented on NQF level 7.

5% will be deducted from the student's assignment mark for each calendar day the assignment is submitted late, up to a maximum of three calendar days. The penalty will be based on the official campus submission date.

Projects submitted later than three calendar days after the deadline or not submitted will get 0%. [1]

This is an individual project.

This project contributes 30% towards the final mark.

[1] Under no circumstances will assignments be accepted for marking after the assignments of other students have been marked and returned to the students.

2. Instructions to Students

1. Please ensure that your answer file (where applicable) is named as follows before submission: **Module Code – Assessment Type – Campus Name – Student Number.**

2. Remember to keep a copy of all submitted assignments.

3. All work must be typed.

4. Please note that you will be evaluated on your writing skills in all your assignments.

5. All work must be submitted through Turnitin. The full originality report will be automatically generated and available for the lecturer to assess. Negative marking will be applied if you are found guilty of plagiarism, poor writing skills, or if you have applied incorrect or insufficient referencing. (See the "instructions to students" book activity before this activity where the application of negative marking is explained.)

6. You are not allowed to offer your work for sale or to purchase the work of other students. This includes the use of professional assignment writers and websites, such as Essay Box. You are also not allowed to make use of artificial intelligence tools, such as ChatGPT, to create content and submit it as your own work. If this should happen, Eduvos reserves the right not to accept future submissions from you.

7. One group member should be nominated to submit the assessment on behalf of the group. Multiple submissions by various group members will result in an inflated similarity index on Turnitin.

3. Section A

Section A

Learning Objective

This project focuses on the web technologies used mainly for internet programming. The students will be expected to gather information related to a specific client and come up with a project proposal guided by the template provided. Furthermore, the students will be expected to develop a database driven e-commerce website based on the requirements gathered from the client using, but not limited to PHP, MySQL, HTML, CSS, and JavaScript.

Project Topic

Web Development and e-Commerce Individual Project

Scope

Block 1: Weeks 1 - 7, Block 2: Weeks 1 - 6

In this project, every student is expected to identify and schedule meetings with any registered local business or an individual in need of a database driven e-commerce website. Using different information gathering methodologies, the students must have a clear understanding of what is expected by the client. Complete the templates provided for each deliverable and submit to your lecturer for marking. Use at least PHP, MySQL, HTML, CSS, and JavaScript for the development of the site.

Technical Aspects

- Use standard Arial, font size 12, spacing 1.5.
- Include page numbers.
- Include a title page.
- Print submissions on both sides of the page.
- Write no less than 30 pages.
- Include all relevant diagrams.
- Ensure any diagrams, screenshots and PowerPoint presentations fit correctly on the page and are referenced.
- Include a table of contents.
- Use accurate Harvard referencing throughout the assignment.
- Include a bibliography based on the applicable referencing method at the end of the assignment.
- Include the completed Assignment/Project Coversheet (available on myLMS).
- Check spelling, grammar, and punctuation.
- Run the assignment through the Turnitin software.

Marking Criteria

Plagiarism is a very serious matter and if any part of your assignment is found to be plagiarised, you risk a zero grade.

Marks will be awarded for a fully functional E-Commerce application based on specification. Ensure that your applications implement all required functionality for full marks.

3.1. Scenario

Scenario

Study the scenario and complete the question(s) that follow(s):

African Online Retail Growth

Africa is exploding right now. Digital infrastructure is really gaining traction. More people can shop online than ever before, so the big challenge Africa's online retail customers want answered now is, "How do I get my parcel delivered to my home, town or village?"

In many cases in Africa address data does exist in one form or another. It's part of a field called geospatial analysis. The problem is that address data is usually incomplete, poorly maintained, and in a variety of formats, which makes it exceptionally difficult to incorporate into efficient business processes. The result is that it's expensive to take care of what's called "the last mile" in online retail, delivering actual packages to people's homes and places of work.

Fouche states that businesses need standardised, complete, and trustworthy data in order to make good business decisions. This includes knowing the existence and location of addresses, property borders and entrances, and geographical boundaries such as suburbs, counties, and districts. This information is crucial for things like planning delivery routes, logistics, and assessing business risk for loans and insurance.

E-commerce security is a crucial aspect of online retail, and African retailers can leverage it to reach the next level of growth. By implementing the OWASP (Open Web Application Security Project) Top 10 guidelines, online retailers can help to protect their customers' personal and financial information and prevent unauthorized access to their systems. This not only helps to prevent fraud and data breaches but also instils trust in consumers and enhances the reputation of the retailer. By addressing the OWASP top 10 risks such as SQL Injection, Cross-Site Scripting, and Broken Authentication and Session Management, African retailers can improve the overall security of their e-commerce website, attract more customers, and increase sales. This will help them to compete at the global level and take their business to the next level.

Source: BizCommunity (2022). How African online retail will grow to the next level - AfriGIS. [online] Bizcommunity. Available at: https://www.bizcommunity.com/Article/196/394/233164.html [Accessed 26 Nov. 2022].

End of Scenario

3.2. Deliverable 1: Project Proposal

Deliverable 1: Project Proposal   30 Marks

Identify and schedule meetings with any registered local business or an individual in need of a database driven e-commerce website. Using the Deliverable 1 template provided, write a full project proposal, and submit it to your lecturer on or before the due date.

Mark Allocation

Criteria		Mark Allocated
1.1	Introduction	3
1.2	Needs/Problem	3
1.3	Goals/Objectives	6
1.4	Procedures/Scope of Work	4
1.5	Timetable	5
1.6	Budget	4
1.7	Key Personnel	2
1.8	Conclusion	2
1.9	Sign-off	1
Total		**30**

End of Deliverable 1

3.3. Deliverable 2: Documentation and Coding

Deliverable 2: Documentation and Coding	120 Marks

Design two prototypes of the e-commerce website you will be developing for the client selected in Deliverable 1 (Project Proposal). Your designs must be responsive on various gadgets such as smart phones, tablets, and desktops. The client must select and approve one of the prototypes for the actual website development.

Provide the Class Responsibility Collaborator (CRC) cards, Enhanced Entity Relationship Diagram (EERD), Context Diagram, Data Flow Diagram (DFD), Use Case Diagram and Database Design (showing the data to be stored and the relationship between different elements).

Develop a database driven e-commerce website for your client following the selected prototype and the designs in the questions above. **DO NOT use** framework, templates, or any Content Management System (CMS). You must develop everything from scratch. You must use at minimum the following technologies:

·   PHP and MySQL

·   HTML

·   JavaScript (jQuery accepted)

·   CSS

·   Research on other tools you can use based on the nature of your project

You are to research, identify and implement Security measures that will be advantageous to your client's website.

Note: Complete and submit the Deliverable 2 template provided on or before the due date. The link to the completed and hosted website must be formally submitted and shared with your lecturer **ONE (1)** week **BEFORE** your Deliverable 3 presentation. The submission of localhost is **NOT** permitted for Deliverable 3 presentation and would result in a **50%** Presentation Mark penalty.

Mark Allocation

Criteria		Mark Allocated
Introduction		3
2.1 Needs/Problem	Prototype A	10
	Prototype B	10
2.2 Goals/Objectives	Class Responsibility Collaborator (CRC) cards	8
	Enhanced Entity Relationship Diagram (EERD)	8
	Context Diagram	8
	Data Flow Diagram (DFD)	8
	Use Case Diagram	8
	Database Design	8

2.3 Coding	Screenshots	8
	Sample PHP Code	8
	Sample HTML Code	8
	Sample JavaScript Code	8
	Sample CSS Code	8
	Sample MySQL Table Screenshots	6
2.4 Conclusion		2
2.5 Sign-off		1
Total		**120**

End of Deliverable 2

3.4. Deliverable 3: Project Presentation

Deliverable 3: Project Presentation   50 Marks

You are required to present your final project to your lecturer(s). The final project with all the requirements specified in Deliverable 1 and a user manual (use the template provided) must be hosted using any free hosting sites.

Mark Allocation

Criteria	Mark Allocated
3.1 User Manual	10
3.2 Presentation	40
Total	**50**

End of Deliverable 3

Deliverable 3: Project Presentation   50 Marks