

Module Title:	Web Development for Information Systems
Module Code:	B9IS109
Module Leader:	Dinesh Kanojiya
Level:	9
Assessment Type	Project
Restrictions on Length	2000 words (minimum word count).
Assessment Title	Web application on a topic of your choice
Assessment Number:	1 of 2
Individual/Group:	Individual
Assessment Weighting:	85%
Issue Date:	18/09/2024
Due Date:	20/11/2024 (23:59 pm)
Feedback Date:	Hand in date plus 2 weeks
Mode of Submission	Online via Moodle only.

Total Marks: 100

Weighting (85%) Web App (70 marks)

Description:

The assessment focuses on the student's ability to design, develop, and present a web application using relevant frameworks, technologies, and best practices. The proposed assessment includes two components: a project implementation and a presentation.

Assessment Task: Part 1: Web Development Project (70 Marks)

1. Choose a topic of your interest and propose a web application project that demonstrates your skills in web development for information systems. The project should involve a complete IS solution in the form of a web app or a proof of concept system.
2. Conduct thorough research and planning, including the identification of project requirements and objectives.
3. Select a suitable front-end framework that showcases evidence of user-experience design, considering interactivity and visual appeal.
4. Choose appropriate back-end technologies, such as relational or non-relational databases, to support the functionality and data management of your web application.
5. Implement the consumption of web services, demonstrating the integration of external data sources or functionalities.
6. Address security vulnerabilities by incorporating relevant technologies and techniques to ensure data integrity, authentication, and protection against common threats.
7. Utilize JSON/XML formats effectively for data exchange and communication between the front-end and back-end components.
8. Apply design patterns to enhance the maintainability, scalability, and extensibility of your web application.
9. Deploy your web application to a cloud platform, showcasing your ability to manage the deployment process effectively.
10. Compile a comprehensive project report, adhering to high industry standards, with a reflective paragraph describing your learning experience.
11. Upload your project artifacts and source code to a GitHub repository, including the repository URL in your report.

Part 2: Report (20 Marks)

Report must include the following topics:

1. Research and Planning
2. Choice of framework and technologies
3. UX Design
4. Web Service
5. Security threats and Measures
6. Features

Part 3: Presentation (10 Marks)

1. Prepare a visually appealing and well-structured presentation recording (10 to 15 minutes long) to showcase your web application project.
2. Demonstrate the features and functionality of your web app through a live demo, ensuring that the chosen technologies are set up and working correctly.
3. Deliver a concise and engaging presentation, summarizing the research, design choices, implementation process, and key findings.
4. Address questions from the audience confidently and comprehensively, displaying a deep understanding of your project and the technologies used.
5. Ensure the presentation does not involve excessive slide reading, and effectively communicate the content with clarity and enthusiasm.

Assessment Guidelines:

1. Choose a project topic that aligns with your interests and demonstrates your skills in web development for information systems.
2. Conduct thorough research to support your design and implementation decisions, ensuring the use of relevant and up-to-date sources.
3. Develop the web application with attention to completeness, correctness, and usability, considering industry standards and best practices.
4. Demonstrate effective project management skills by adhering to timelines, meeting deliverable requirements, and organizing project artifacts appropriately.
5. Create a high-quality project report that encompasses research, analysis, design, and reflective insights, following industry-level professional standards.
6. Present your project confidently, showcasing your understanding of the chosen technologies, visual design skills, and ability to engage the audience.
7. Prepare a live demo of your web application to validate its functionality and highlight your chosen technologies.
8. Demonstrate professionalism and attention to detail in both the project report and presentation, ensuring there are no typos or grammatical errors.
9. Submit the project report and deliver the presentation within the specified deadlines.

This assessment task emphasizes the practical application of web development skills, encouraging students to create a complete web application while adhering to industry standards. The presentation component allows students to showcase their work and engage with the audience effectively.

ASSESSMENT CRITERIA Criteria/Mark	< 40	40 - 49	50 - 59	60 – 69	70+
Report: 20 marks	No evidence of research. Very Poor and unclear justification of methodologies . Poor UX Design. Missing key features/parts. Includes very little on security threats or measures. Poorly structured with spelling and syntax errors. Shows no capabilities to complete project properly.	Some evidence of research. Some justification of methodologies. Acceptable UX Design. Includes some key features/parts. Also includes some security threats and measures. Demonstrates some structure with some errors. Shows some capabilities to complete project properly.	Sufficient evidence of research. Adequate descriptions with adequately stated details. Key areas are of reasonable standard.	Good descriptions showing evidence of research, all essential details covered. Key areas of the proposal stated clearly.	Excellent descriptions showing good research, clearly stated methodology. Comprehensive description of key areas with clear analysis of benefits of the Web project providing a robust solution.
Web App: 70 marks					

	<p>Poorly designed front-end showing no evidence of user experience design. No back-end or weak backend design and connectivity. None/ inappropriate use of web services. No measures to deal with security vulnerabilities. None or poor use of</p>	<p>Some evidence of UX design is shown by the frontend. Some use of database which has some relevance to the context of Web app. Some use of web service without proper context. Ability to JSON/XML, use design pattern.</p>	<p>Fair and consistent front-end with Reasonable visual design. Reasonable use of backend. Sufficient use of key of key technologies such as JSON/XML, design patterns, deployment on Cloud.</p>	<p>Evidence of good UX Design by developing good navigation, consistent and unambiguous. Clear signposting and easy to follow navigation system. Good colour scheme, font's layout for usability and accessibility; consistent look and feel. Good use of key features with deployment on Cloud.</p>	<p>Excellent demonstration of UX design by developing consistent clearly labelled navigation system throughout with a variety of methods used including sitemaps, breadcrumbs trail, highlights and/or other techniques. Excellent use of key technologies such as web services, design</p>
	<p>JSON/XML. No design pattern. Not deployed to cloud.</p> <p>Un-organised structure with little or no navigation system. User typically feels lost, inappropriate colour scheme, fonts, inconsistent look and feel, etc. resulting in difficulties in accessibility and readability</p>	<p>Deployed on cloud with some features working on cloud.</p>			<p>patterns, cloud deployment.</p>

Presentation (10 marks)	Poor slides with many errors, bad template, missing content, no engagement with audience, reading from slides, not able to answer questions.	Slides with some problems such as poorly structured, etc. some content missing, some engagement with audience, ability to answer some questions.	Reasonable slides with sufficient content properly presented. Engaging with audience but showing lack of confidence. Ability to answer most questions.	Properly structured and designed slides. Good presentation skills. Ability to answer questions with confidence.	Excellent slides and presentation. Ability to provide comprehensive answers to questions.
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