
UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Malaysia-Japan International Institute of Technology (MJIIT)

**SECD 2613-15 SYSTEM ANALYSIS AND DESIGN**

**20232024 – SEMESTER 2**

# PROJECT PROPOSAL

**FACULTY OF MJIIT**


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**GROUP 5**

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## 1.0 EXECUTIVE SUMMARY

The online quiz platform aims for the development of a website that will make it easy for students to access and answer the online quiz platform provided by lecturers. This part includes the objectives of the project and planning strategies to develop this system. With its innovative features, design, and commitment to learning and entertainment, the platform aims to become a leading destination and provide strong morale to solve quizzes of all backgrounds, fostering knowledge sharing, community engagement, and intellectual growth.

## 2.0 BACKGROUND

The online quiz platform was created with the goal of using technology to transform education. Our journey began with a simple idea: establish an online platform that improves learning experiences through interactive quizzes. Over time, we have grown into a complete educational resource that provides a variety of tools and services to students, instructors, and educational institutions worldwide. Our platform enables teachers to design and distribute quizzes to their students, monitor their progress, and discover areas for growth. it also facilitates peer-to-peer learning, where students can challenge each other, exchange ideas, and learn collaboratively.

The online quiz platform Not only enhances learning experiences for students but also empowers educators with valuable tools and resources. By fostering accessibility, engagement, and collaboration, we aim to make a positive impact on the future of education.

## 3.0 OBJECTIVES

1. Assessment: To evaluate learners' understanding of specific topics, concepts, or skills through quizzes and assessments.

2. Flexibility: To offer flexibility in terms of quiz creation, customization, and delivery to accommodate various learning styles and preferences.

3. Feedback: To provide immediate feedback to learners on their quiz performance, allowing them to identify areas for improvement and track their progress over time.

4. Automated Scoring: Implementing automated scoring mechanisms where the platform instantly grades quiz responses based on predefined correct answers or scoring rubrics. This eliminates the need for manual scoring by instructors, saving time and ensuring consistency.

5. Randomization: Randomize the order of questions and answer choices for each quiz attempt to make it difficult for students to share answers or collaborate during the assessment.

6. Time Limits: Set time limits for completing quizzes to discourage students from seeking outside assistance or resources during the assessment period.

7. Browser Lockdown: Utilize browser lockdown features or secure browser plugins that restrict access to other websites or applications while the quiz is in progress, preventing students from searching for answers online.

## 4.0 AGILE METHODOLOGY

1. Sprint Planning (Duration: 1 week)

   During this phase, the team will define the scope of work for the upcoming sprint based on the objectives outlined for the online quiz platform. This involves breaking down the objectives into smaller, actionable tasks or user stories.

   i. Task Breakdown: Identify specific features and functionalities required to meet each objective, such as quiz creation interface, feedback mechanism, automated scoring algorithms, etc.

ii. User Story Creation: Develop user stories for each feature, focusing on the needs and perspectives of both learners and instructors.

2. Sprint Development (Duration: 2 weeks)

   In this phase, the development team will work on implementing the features and functionalities defined in the sprint planning phase. The emphasis is on iterative development and frequent communication to ensure progress aligns with the project objectives.

   i. Feature Implementation: Develop the quiz creation interface with options for customization and flexibility. Implement feedback mechanisms for immediate performance evaluation.

   ii. Automated Scoring: Integrate automated scoring mechanisms based on predefined correct answers or scoring rubrics. Test the scoring algorithms to ensure accuracy and reliability.

3. Sprint Review and Feedback (Duration: 1 week)

   At the end of the sprint development phase, the team will conduct a review to evaluate the implemented features and gather feedback from stakeholders, including instructors and potential users.

   i. Demo Session: Present the developed features to stakeholders for review and feedback. Gather insights on usability, functionality, and alignment with objectives.

   ii. Feedback Collection: Solicit feedback from stakeholders on aspects such as flexibility, assessment accuracy, and user experience. Prioritize feedback for inclusion in future sprints.

4. Sprint Retrospective (Duration: 1 week)

   During this phase, the team reflects on the sprint's successes and challenges, identifying areas for improvement and planning adjustments for future sprints.

   i. Retrospective Meeting: Conduct a retrospective meeting to discuss what went well, what could be improved, and what lessons were learned.

   ii. Action Plan: Develop an action plan for addressing identified issues and improving processes for future sprints. This may include refining development practices, enhancing communication channels, or adjusting sprint planning procedures.

5. Sprint Execution (Repeat Steps 1-4)

   Repeat the sprint cycle, continuously iterating and improving the online quiz platform based on stakeholder feedback and changing requirements. Each sprint focuses on delivering incremental value while maintaining alignment with the overall project objectives. Adjustments may be made to the sprint duration or scope based on project progress and feedback received.

## 5.0 RESOURCES

**Personnel:**

1. Project Manager
2. Software engineers
3. UI Designers
4. Marketing Specialist

**Equipment:**

1. Development hardware
2. Network Equipment
3. Testing Devices

**Software:**

1. Integrated Development Environment (IDE)
2. Database Management System (DBMS)
3. Frontend and Backend Technologies
4. Version Control System (VCS)
5. Graphics Design Software
6. Project Management Tools, Communication Tools and Testing Tools.

**Dedicated Task Time:**

1. Project Planning and Requirements Gathering: 2-3 weeks
2. Design and Prototyping: 3-4 weeks
3. Development: 8-12 weeks (depending on platform complexity and features)
4. Testing and Quality Assurance**:** 2-3 weeks

## 6.0 BUDGET

1. Development Costs: 36000 rm (one-time cost)
2. Design Costs: 22500 rm (one-time cost)
3. Hosting and Infrastructure: 4500 rm/months

4. Domain and SSL Certificate: 1550 rm per year
5. testing and Quality Assurance: 9000 rm (one-time cost)
6. Maintenance and Updates: 3600 rm/months
7. Marketing and Promotion: 6750 rm(one-time cost)
8. Third-party Integrations: 2250 rm/months

Total budget:

- Total cost of the budget

= Development Costs design cost +hosting&infrastructure + Domain and SSL Certificate + testing and Quality Assurance + Maintenance and Updates + Marketing and Promotion + Third-party Integrations

- So, the total budget in number:

= (4500+3600+2250) *12+36000+22500+9000+6750+1550

= 200,000 rm

## 7.0 MEASUREMENT AND REPORTING

| Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | | | | | | | | | | | | | | |
| Project Planning and Requirements Gathering | | | | | | | | | | | | | | | | | | |
| Design and Prototyping | | | | | | | | | | | | | | | | | | |
| Development | | | | | | | | | | | | | | | | | | |
| Testing and Quality Assurance | | | | | | | | | | | | | | | | | | |

## 8.0 RISKS

1. Market Saturation
2. Technical Complexity
3. User Adoption and Engagement
4. Monetization Challenges
5. Data Privacy and Security

To mitigate these risks, mitigation strategies may be used such as market research validations, agile development methodology, user-centric design, and continuous monitoring and iterative improvement.