Project Contract

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**5. Project Title: TableTop Reserve**

**6. Project Proposer: Thomas Wilson**

**7. Supervisor: Dr Ali Jwaid**

**8. Introduction (max. 100 words):**

TableTop Reserve is a mobile booking app designed for tabletop game enthusiasts and shop owners. Gamers can easily browse local stores, discover community events, reserve gaming tables, and receive notifications from shop owners regarding pre-orders. Meanwhile, game stores can sign up to manage their reservations and send notifications to customers. This application aims to make booking hassle-free and provide a centralised platform for stores and customers. There will also be a web-based portal for admin and store management.

**9. Project Background (max. 300 words):**

This application is needed due to the surge in popularity of tabletop gaming stores; often, these shops do not have the financial means to develop their own application. Each store having its own application would also be detrimental to customers, as it would be more time-consuming to search each individual store rather than having a centralised application that can be used by customers and stores to manage bookings and other tasks.

This application will reduce store costs for stores, make it easier for them to manage booking and reach a broader customer base. It will also make it easier for customers to manage their gaming experience, whilst making the process simpler and easier for them to manage.

**10. Aims (max. 100 words):**

The project's main aims are to streamline table and gaming reservations, enhance store visibility, simplify booking management, help stores build their community, improve the gaming experience, and increase store revenue. This will all be done with a simple and intuitive UI which prioritises ease of use. Another high priority for this to be successful will be making sure that it is easy for stores to manage their customer's bookings and promote themselves from within the app.

**11. Objectives (max. 200 words):**

* Literature Review: To conduct comprehensive research and produce a literature review.
* User Interface (UI)/Functionality Design: Outline the user experience and design the web application's user interface and functionality.
* Testing Plans: To create detailed testing plans for each web application section and complete initial testing stages.
* Database Setup: To design and set up a prototype database containing user login information.
* **Database Finalisation**: Finalise the database structure and determine what user and store information is stored.
* **Web Application Coding**: To complete the coding phase of the web application based on the finalised design.
* **Mobile Application Coding**: To complete the coding phase of the mobile application based on the finalised design.
* **Final Testing**: To complete final testing on each application to ensure functionality and identify potential issues.
* **Final Report**: To compile and present a comprehensive report covering all aspects of the project.
* **Performance Analysis**: Conduct a final performance analysis to evaluate the implemented system's overall success and efficiency.
* **Critical Review**: To conduct a critical review of the entire project, identifying areas for improvement and refinement.

**12. Deliverables (max. 100 words):**

Literature Review

System design documentation

UI design documentation

Testing Plan

Testing evaluation

Mobile application deliverables:

Phase 1:

* Individual store dashboard with a section for booking tables and reserving games
* User authentication for customers
* Profile management, including account deletion, editing user information

Phase 2:

* Booking history
* Store search function
* Store review system

Web application deliverables:

Phase 1:

* Store user authentication
* Booking management
* Store profile management

Phase 2:

* Notification system

Admin Section deliverables:

Phase 1:

* Store management

**13. Resources and Constraints (max. 100 words):**

Resources:

* Apache web server for hosting.
* Flask web framework for application development.
* Firebase for database
* Python for backend development.
* HTML and CSS for frontend design.
* Kotlin for mobile Android application.

Hardware:

* Cloud-based server.
* Cloud and local storage for files.
* Personal Computer.

Constraints:

* Dependent on the availability and reliability of the cloud-based server.
* Limited scalability in storage and processing resources.
* Personal computer resources may be limited for intensive tasks.
* Dependent on the availability and reliability of the database provider.

**14. Sources of Information (max. 100 words):**

I will be using the following sources of information in my project:

* Library: Books and academic resources.
* Internet: Online content, journals, and forums.
* LinkedIn Learning: Online courses and tutorials for skill development.
* Local gaming stores for feedback (Pendulum Gaming, Black Dragon Games)
* DMU Learning Zone: Module resources

**15. Risk Analysis (max. 100 words):**

* Risk – Any unforeseen technical challenges in web or mobile application development.
* Mitigation – Break down tasks into smaller phases to allow for easier troubleshooting and leave adequate time for each phase's research and development.
* Risk - Dependence on external API or Services that may not function correctly when needed.
* Mitigation – Identify alternatives that can be used as backups as well as implementing error handling mechanisms.

**16. Schedule of Activities (max. 300 words):**

*A screenshot of a graph

AI-generated content may be incorrect.*

**17. Student Signature: T Wilson**

**18. Supervisor Signature:**

**19. Date: 24/02/2025**