

Project Topic:	CSIT-25-S3-20- A Mobile Application for Wise Workout		
Project Group:	FYP-25-S3-14		
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Project Description:

This project aims to develop a mobile application (for Android, iOS, or both) that can collect exercise data from cellphone sensors or wearable devices, provide training and fitness advice, and facilitate social interactions such as initiating competitions between registered users. The application should have the following features.

1. Collect exercise data:

The application can collect user exercise information from either the cellphone's own sensors or from smart wearable devices (via Wi-Fi, Bluetooth, etc.).

2. Estimate exercise effects (short-term or long-term) and provide analysis:

The application can estimate the exercise results of each activity, a day, a week, a month, or any period, such as the number of calories burned and the average and maximum heart rate.

3. Supply fitness advice and schedule a fitness plan:

The application can provide fitness advice according to the user's fitness goals and their entered health information. It can also create a fitness plan based on the fitness goal, and users can customize the plan to their preferences, such as the length of the plan or the daily weight loss goal.

4. Remind user of exercise or take a break:

The application can send reminders to users to exercise if they have not met their scheduled exercise goals. It can also send reminders to users to take a break if they have been exercising too much.

Team to develop a product based on a suitable business model with responsive and user-friendly interface that works seamlessly on various mobile devices. Optimize the user experience for different screen sizes.

Connect with social media and initiate competitions between users: The application can be used to share exercise completion data on social media platforms such as Facebook, Instagram, Twitter. TikTok. Users can also initiate competitions with other registered users and invite them to join in. The competition results and rankings can be shared on social media.

The project may consider releasing the application to the app store.

Project Schedule

Released on: 5th Jul 2025 Rev 0

Tasks	Target Date	Activities and Deliveries
<u>(Term 1) 5 Jul – 21st Sept 2025</u>	5 th July 2025	Start of Final Year Project. Project members attending the 3-hour lectures
Project Briefing		
Forming the team and set up project website	10 July 2025	<ul style="list-style-type: none"> The students are to form a project team and identify a team leader. The project team is to come out with team members' profile To set up project websites and blog. All project meetings need to be minuted and posted in the project blog. Blog must be accessible to Supervisor and Assessor Carry out preliminary research in topic area individually <p>Deliverable: Project Website link and Team leader Name and Team Members Profile. (14 July 2025)</p> <p>Submit, Individually, the Reflective Diary every Week. First Diary submit on 13 July</p>
Research on topic of project	Week 1 – 5: 5 Jul 2025 – 9 Aug 2025	<ul style="list-style-type: none"> To do a literature review and submit a project requirement Documentation (Project Requirement Documentation (PRD) by 9th Aug 2025). You are required to explore the literature to find answers to the following questions: <ul style="list-style-type: none"> What is the different work-out monitoring applications available in the market? What features do they offer? Do they provide profile-based recommendations to users? What are the important functionalities of such apps? How do they collect data from wearables or other devices?

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		<ul style="list-style-type: none"> What are the common protocols used for such data acquisition? How is such app implemented? How do they link social networks to encourage participation and competition? What type of business model is suitable for such implementations? What type of alert system do you intend to provide to the users? Do they provide cross platform features without compromising user experience? What are the common software tools available to implement such systems? What are the functionalities you intend to build in your product? Who are the target users? (casual exercises, athletes, health-conscious individuals, Health care and fitness specialists) Demographics (age, fitness levels, tech familiarity). What are the accessibility needs and privacy concerns? How do you plan to implement your project? What algorithm and how to apply your algorithm / technique? What are the recent developments in the topic area? Do you have any case study to support your case? How do you model such a system? <p>Deliverable: Project Requirement Documentation -Draft Review (2nd Aug 2025)</p> <p>Submit in Moodle on 9th August</p>
Requirement	Week 6 - 7: 10 Aug 2025 – 23 Aug 2025	<p>Gather information on the requirements of the project.</p> <ul style="list-style-type: none"> The project team is to identify the system's services (functionalities), constraints and goals of the project. <ul style="list-style-type: none"> Identifying the various functionalities, algorithms as well as interfaces required from three perspectives - functional, non-functional, and security. The team is to produce Preliminary Project Documents which include Refined Project functionalities and System Requirement Specification. <p>Deliverable: System Requirement Specification (SRS) (17th Aug 2025)</p>
Analysis and design	Week 8-9: 24 Aug 2025-	Project team to start with a solution for the implementation of the project.

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	8 Sept 2025	<ul style="list-style-type: none"> The team is to produce the System Designs, Architectural Designs as well Database Design of the system. Finalize functionalities and start work on the prototype <p>Deliverable: Technical Design Manual with prototype (TDM) (2 Sept 2025)</p>
Implementation	Week 10-11 9 Sept 2025 20 Sept 2025	<p>Depending on the systems development methodology used by the team, to continue the development of the project. Complete the development of prototype with basic functionalities defined for the system design manual. Complete the Progress report with preliminary documents.</p> <p>Deliverable: System prototype with basic functionalities, Project Progress Report consists of the following: Preliminary Project Documents (Preliminary Technical Documents, Preliminary User Manual (13 Sept 2025) for review</p> <p>Demonstrate the functional prototype in the intended platform to the supervisor Submit in Moodle by required date</p>
End of Term 1 Review	Week 11 20 Sept 2025	<ul style="list-style-type: none"> Demonstrate the functional prototype in the intended platform to the assessor <p>Deliverable: Project Progress Report (Preliminary Technical Documentation, Preliminary User Manual, Application Prototype with basic functionalities, Peer Assessment Form (20 Sept 2025).</p>
<u>(Term 2) 21 Sept -25 Nov 2025</u> Implementation	Week 1 – 4: 21 Sept 2025- 18 Oct 2025	<ul style="list-style-type: none"> Continue to work on the development. As the team continues to develop, there might be changes to the original technical design. Update your Technical Design Documents. Demonstrate functionalities at module level The team to produce a System Test Plan. Carry out Module Testing <p>Deliverable: Demonstrate Individual Functional Modules. Module and Integrated, System Test Plan, Final documentation draft. (18 Oct 2025).</p>
	Week 5 – 6: 19 Oct 2025 – 1 Nov 2025	<ul style="list-style-type: none"> The team is to update the technical documentation and user Manual Demonstrate Completed modules with full functionalities in an integrated environment The team is to carry out the Integration Test

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		Deliverable: Demonstrate Integrated Module functionalities on actual platform, User Manual- Draft, Test Summary (1 Nov 2025).
Prepare for Project Presentation and Demonstration of product	Week 7 – 9 2 Nov 2025 – 15 Nov 2025	<ul style="list-style-type: none"> The team is to wrap up the development and prepare for the project presentation. Create Project Video To present the final fully functional product and the documents to the project supervisor. <p>Deliverable: The Final Project Documentations- Technical Documentation, User Manual. Final fully functional Product, Project Video, Presentation slides, Peer Assessment</p> <p>Demonstrate to Supervisor on 14th Nov 2025 Submit in Module on required Date</p> <p>Submission of preview reports to Assessor on 15^h Nov 2025</p> <p>Submit Document to Moodle 15 Nov 2025</p>
Project Final Presentation	Week 10 16 Nov-2025 22 Nov 2025	<ul style="list-style-type: none"> The team is to present and demonstrate the final product to the supervisors and an Assessor. <p>Deliverable: Final Project Documentations, including Technical Documentation, User Manual, Project Video. Final, fully functional Product Demonstration to Assessor and Supervisors. (22 Nov 2025).</p>