

GYM MODULE

KIU UNIVERSITY



PREPARED BY :

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INTRODUCTION



- The KIU University's Customize GYM Module for all students is a web-based software solution that uses a range of technologies for both front-end and back-end development. The back-end development is done using Java Spring Boot framework and MySQL database, while the front-end development can be done using either Vue.js or React, and the application will be deployed on an Apache server.
- The purpose of this document is to provide a comprehensive software requirements specification (SRS) for the KIU University's Customize GYM Module for all students. The SRS will outline the functional and non-functional requirements of the software, including the system architecture, user interface design, data management, testing and quality assurance, and deployment and maintenance.

DEVELOPMENT ENVIRONMENTS



Back-end Development:

For the back-end development, the Java Spring Boot framework will be used. The Spring Boot framework provides an easy-to-use platform for building enterprise-level applications quickly and efficiently. The Spring Boot framework includes a range of libraries and tools that simplify the development process, including a built-in application server, a dependency injection container, and a range of other tools that make it easy to build and deploy web applications.

MySQL is a widely used open-source relational database management system (RDBMS) that provides a robust and scalable platform for managing large amounts of data. The MySQL database will be used to store all the gym membership data, attendance records, equipment maintenance records, and payment information.

DEV ENVIRONMENTS

Front-end Development:

For the front-end development, Vue.js or React can be used. Both Vue.js and React are widely used front-end JavaScript frameworks that provide a range of features and tools for building responsive and interactive user interfaces.

Vue.js is a lightweight and easy-to-learn framework that provides a range of features and tools for building reactive and composable user interfaces. Vue.js includes a built-in template system, component architecture, and a range of other tools that simplify the development process.

React is a popular front-end JavaScript library that provides a range of features and tools for building high-performance and reusable user interfaces. React uses a virtual DOM, which allows for fast and efficient rendering of complex user interfaces. React also includes a range of other tools and libraries that make it easy to build complex web applications.

DEV ENVIRONMENTS

Server and Deployment:

The application will be deployed on an Apache server. Apache is a widely used open-source web server that provides a robust and scalable platform for hosting web applications. The Apache server will be used to host the KIU University's Customize GYM Module for all students and make it accessible to students and gym trainers.

Integration with Main ERP Database:

The KIU University's Customize GYM Module for all students will be developed separately from the main ERP database. However, the module will require access to some data from the main ERP database, such as student information and enrollment data. The module will be integrated with the main ERP database using an API that allows for secure and reliable data transfer between the two systems. The API will be developed using RESTful web services and will provide a secure and reliable mechanism for accessing and updating data from the main ERP database.



ACTION PLAN - PHASE 01

The first phase of KIU University's Customize GYM Module for all students will focus on the "development of the student application form and the automatic generation of an email with the application link."

1. Develop an application form that includes all the necessary information required for a gym membership, including personal information, medical information, and emergency contact information.
2. Integrate the application form with the student portal or any other portal, so that it is easily accessible to all registered students.
3. Develop an automatic email system that will generate an email to students after they register with the university. The email will contain a link to the gym application form and instructions on how to complete the form.
4. Implement security measures to ensure that the application form is secure and that student data is protected.



ACTION PLAN - PHASE 01

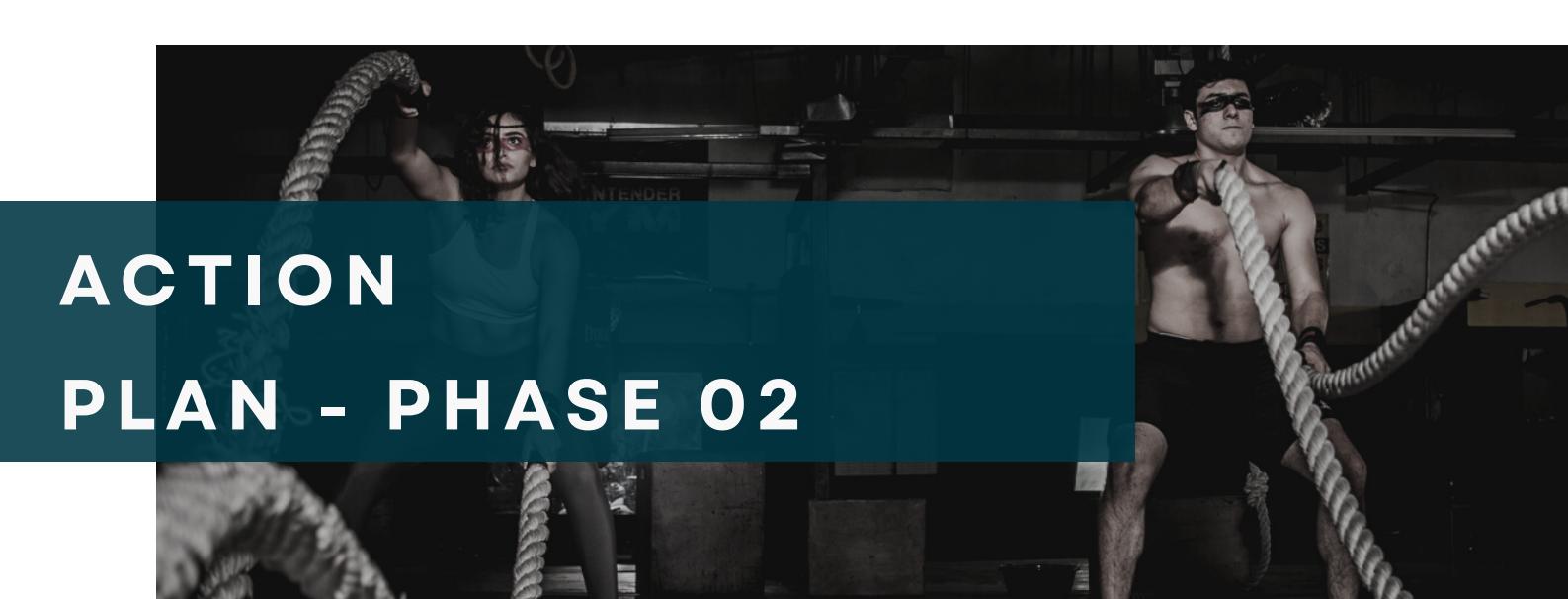
- 5. Test the application form and email system to ensure that they are functioning correctly and that students can easily complete the application form.**
- 6. Provide user documentation and training materials to help students and gym trainers use the system effectively.**

DELIVERABLES:

- 1. Completed gym membership application form.**
- 2. Automatic email system that generates an email to students after they register with the university.**
- 3. Security measures implemented to protect student data.**
- 4. Tested application form and email system that is functioning correctly.**
- 5. User documentation and training materials.**

TIMELINE:

This phase is expected to take approximately "05 DAYS" to complete.



ACTION PLAN - PHASE 02

The second phase of KIU University's Customize GYM Module for all students will focus on the "**development of the gym portal and the integration of the gym module with the student portal**"

1. Develop a gym portal that will allow students to view their gym attendance, reserve gym time, and manage their gym schedule.
2. Integrate the gym portal with the student portal, so that students can easily access the gym module through their student accounts.
3. Develop a gym reservation system that will allow students to reserve a limited amount of gym time per week.
4. Implement security measures to ensure that student data and gym information is protected.



ACTION PLAN - PHASE 02

5. Test the gym portal and reservation system to ensure that they are functioning correctly and that students can easily use the system.
6. If the gym portal is developed separately from the student portal, develop a separate website for the gym portal.
7. Provide user documentation and training materials to help students and gym trainers use the system effectively.

DELIVERABLES:

1. Gym portal that allows students to view their gym attendance, reserve gym time, and manage their gym schedule.
2. Integration of the gym module with the student portal or new Portal.
3. Gym reservation system that allows students to reserve a limited amount of gym time per week.



ACTION PLAN - PHASE 02

5. Security measures implemented to protect student data and gym information.
6. Tested gym portal and reservation system which are functioning correctly.
7. Separate website for the gym portal (if required).
8. User documentation and training materials.

TIMELINE:

This phase is expected to take approximately "01 WEEK and 03 DAY" to complete.



ACTION PLAN - PHASE 03

The third phase of KIU University's Customize GYM Module for all students will focus on the "Integration of a fingerprint machine for gym attendance tracking and the development of attendance monitoring systems for both students and gym trainers."

1. Procure and install fingerprint machines for gym attendance tracking at KIU University's gym facilities.
2. Develop an attendance monitoring system that will record student attendance and integrate it with the gym portal.
3. Implement security measures to ensure that student data is protected and that only authorized personnel have access to attendance data.



ACTION PLAN - PHASE 03

- 4. Test the attendance monitoring system to ensure that it is functioning correctly and that attendance data is accurately recorded and integrated with the gym portal.**
- 5. Provide user documentation and training materials to help students and gym trainers use the attendance monitoring system effectively.**

DELIVERABLES:

- 1. Fingerprint machines installed and integrated with the attendance monitoring system.**
- 2. Attendance monitoring system that records student attendance and integrates with the gym portal.**



ACTION PLAN - PHASE 03

4. Security measures implemented to protect student data and attendance information.
5. Tested attendance monitoring system that is functioning correctly.
6. User documentation and training materials.

TIMELINE:

This phase is expected to take approximately "01 WEEK" to complete.



ACTION PLAN - PHASE 04

The fourth phase of KIU University's Customize GYM Module for all students will focus on the "**Development of a trainer/admin view for gym attendance tracking, equipment maintenance, student payments, and reservation tracking.**"

1. Develop a trainer/admin dashboard that displays student attendance tracking information, equipment maintenance schedules, and reservation tracking.
2. Integrate a payment processing system to enable students to make payments for gym membership fees.
3. Develop a feature that will allow trainers to disable student accounts if they fail to make payment on time.
4. Implement security measures to protect student payment data and ensure that only authorized personnel have access to payment information.



ACTION PLAN - PHASE 04

5. Test the trainer/admin dashboard to ensure that it is functioning correctly and that data is accurately recorded and updated.
6. Provide user documentation and training materials to help trainers and admin staff use the system effectively.

DELIVERABLES:

1. Trainer/Admin dashboard that displays student attendance tracking information, equipment maintenance schedules, and reservation tracking.
2. Payment processing system that allows students to make payments for gym membership fees.
3. Feature that allows trainers to disable student accounts if they fail to make payments on time.
4. Security measures implemented to protect student payment data and ensure that only authorized personnel have access to payment information.



ACTION PLAN - PHASE 04

- 5. Tested trainer/admin dashboard that is functioning correctly.**
- 6. User documentation and training materials.**

TIMELINE:

This phase is expected to take approximately "02 WEEKS" to complete.

ACTION PLAN - PHASE 05



The fifth and final phase of KIU University's Customize GYM Module for all students will focus on "Generating reports for attendance tracking, membership information, equipment usage, and training hours."

1. Develop report-generation features that will allow trainers/admins to view attendance data for individual students, groups of students, and for specific time periods.
2. Develop report generation features that will allow trainers/admins to view membership information, such as the number of active memberships and the number of inactive memberships.
3. Develop report generation features that will allow trainers/admins to view equipment usage data, such as the number of times each piece of equipment is used and when it is most frequently used.

ACTION PLAN - PHASE 05



- 4. Develop report generation features that will allow trainers/admins to view training hours data, such as the number of training hours each student has completed and the types of training completed.**
- 5. Test the report generation features to ensure that they are functioning correctly and that data is accurately recorded and updated.**
- 6. Provide user documentation and training materials to help trainers and admin staff use the report generation features effectively.**

DELIVERABLES:

- 1. Report generation features that allow trainers/admins to view attendance data for individual students, groups of students, and for specific time periods.**

ACTION PLAN - PHASE 05

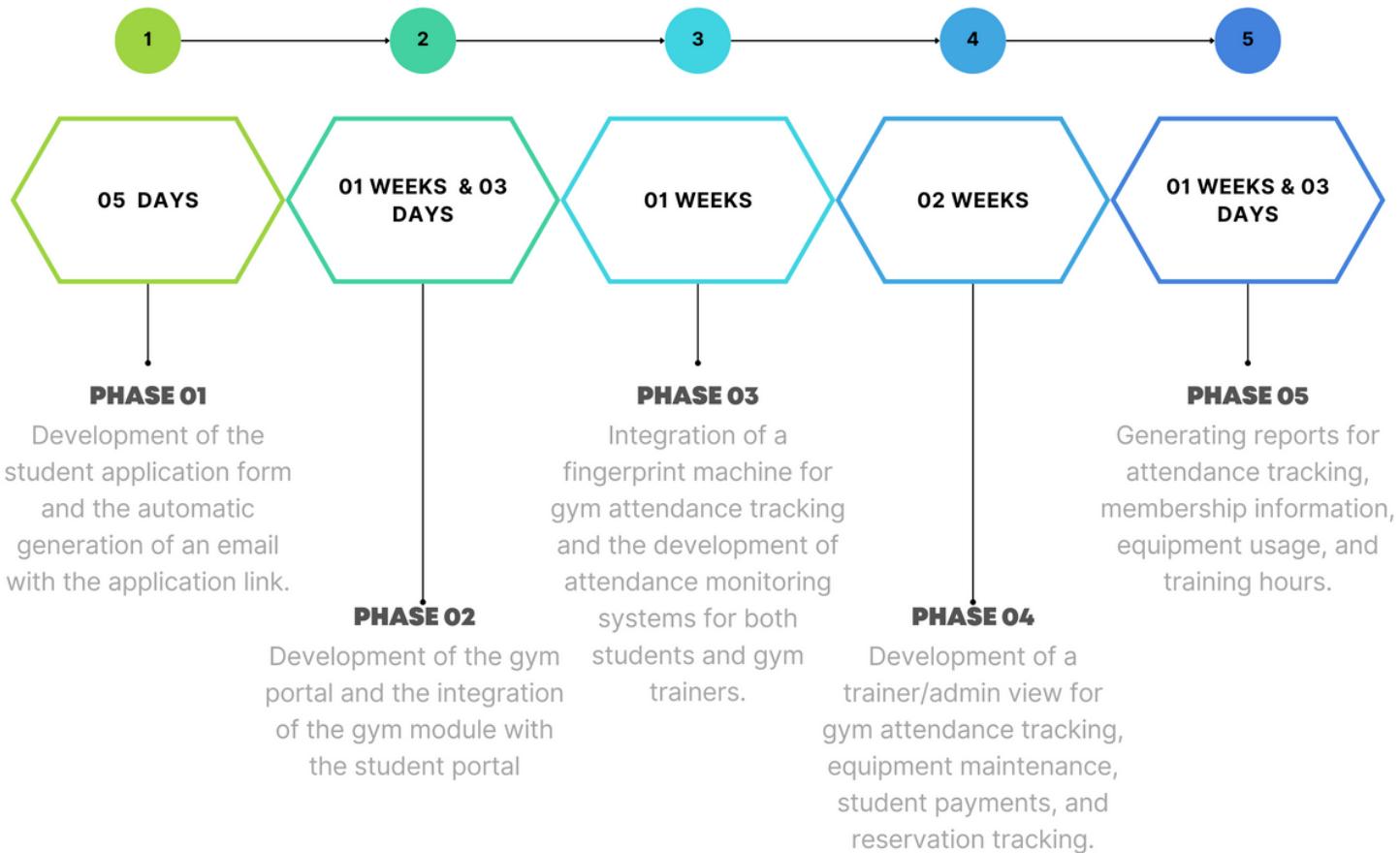


- 2. Report generation features that allow trainers/admins to view membership information, such as the number of active memberships and the number of inactive memberships.**
- 3. Report generation features that allow trainers/admins to view equipment usage data, such as the number of times each piece of equipment is used and when it is most frequently used.**
- 4. Report generation features that allow trainers/admins to view training hours data, such as the number of training hours each student has completed and the types of training completed.**
- 5. Tested report generation features that are functioning correctly.**
- 6. User documentation and training materials.**

TIMELINE:

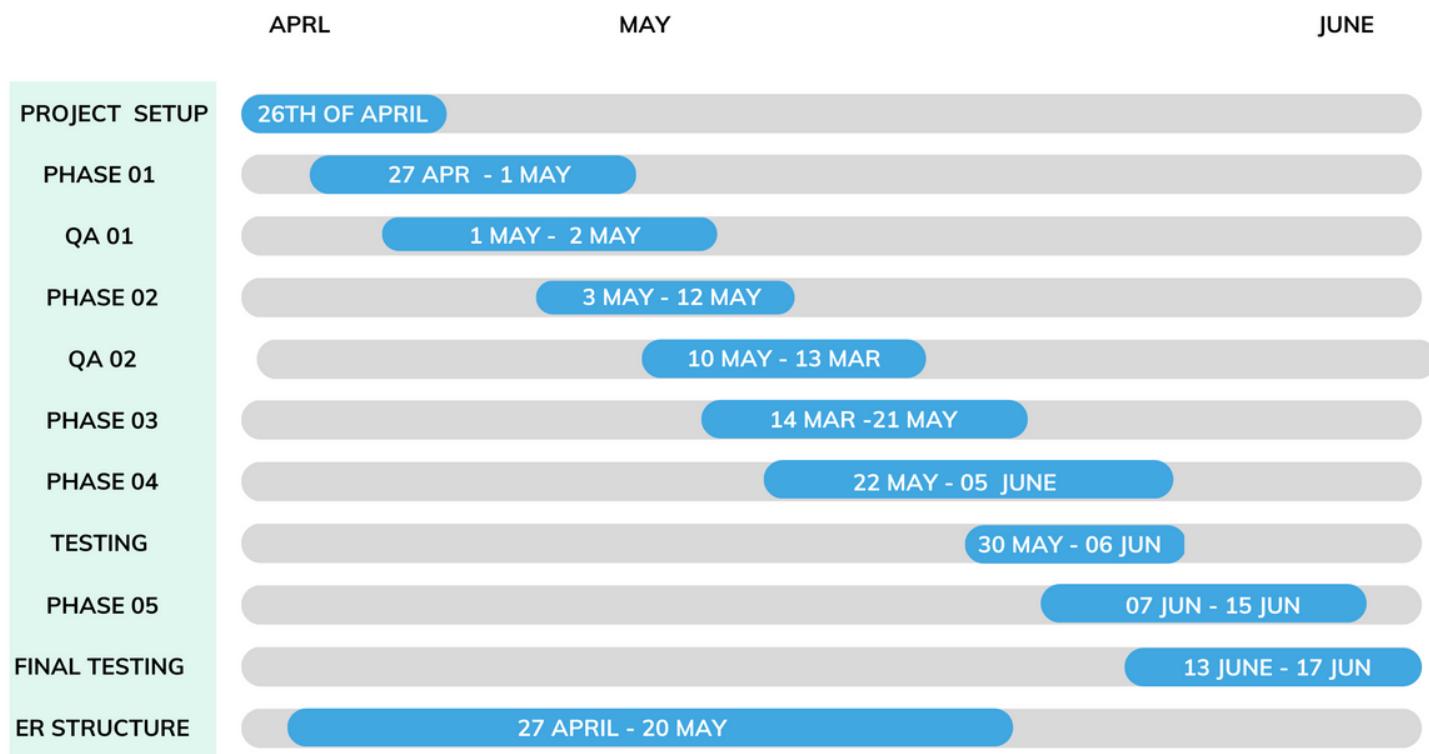
This phase is expected to take approximately "01 WEEK & 03 DAYS" to complete." to complete.

PROJECT TIMELINE



GANTT CHART

GANTT CHART



BENCHMARKS



- <https://www.inettutor.com/source-code/gym-management-user-interface-and-system-modules/>
- <https://www.globalitvision.com/gym-management-system/>
- <https://www.gymmaster.com/booking-and-scheduling/>
- <https://www.udiosystems.com/industries/gym-and-fitness>

