

# SC2006

## Functional Requirements:

### 1. User Authentication:

- Users should be able to register and log in securely using email/password or social media accounts.
- Password recovery and reset functionality.

### 2. User Profile:

- Users can create and edit their profiles, including personal information and body type.
- Option to upload a profile picture.

### 3. Search and Filter:

- Users can search for nearby gyms using location-based search.
- Filters for gym facilities, such as capacity, available equipment, and amenities.

### 4. Gym Information:

- Display detailed information about each gym, including address, contact details, facilities, and current capacity.

### 5. Workout Plans:

- Users can view workout plans tailored to their body type.
- Detailed breakdown of each workout with instructions and videos.
- Option to save favourite workouts.

### 6. API Integration:

- Integration with the "Exercises by API Ninjas" to fetch exercise details and create workout plans.

### 7. Booking and Scheduling:

- Users can book workout sessions or classes (redirected to external site).
- Calendar integration for scheduling workout routines.

### 8. Notifications:

- Notify users about upcoming booked sessions, changes in gym capacity, or personalized workout recommendations.

## 9. User Feedback:

- Provide a rating and review system for gyms and workout plans.
- Feedback form for users to suggest improvements.

# Non-functional Requirements:

## 1. Performance:

- Fast loading times for the application and workout plans.
- Efficient API calls to ensure quick data retrieval.

## 2. Scalability:

- The system should be scalable to accommodate an increasing number of users and gyms.

## 3. Security:

- Implement secure authentication protocols.
- Ensure data privacy and protection.
- Use HTTPS for secure data transmission.

## 4. Reliability:

- High availability of the application.
- Regular backups of user data.

## 5. Compatibility:

- Ensure compatibility across different devices and browsers.

## 6. Usability:

- Intuitive user interface for easy navigation.
- Accessibility features for users with disabilities.

## 7. Integration:

- Seamless integration with third-party APIs (Exercise API and Gym@SG-API).

## 8. Compliance:

- Compliance with data protection regulations (PDPA, etc.).

## 9. Monitoring and Analytics:

- Implement monitoring tools to track application performance and user behaviour.
- Utilize analytics to understand user engagement and improve features.

## 10. **Documentation:**

- Well-documented API for future development and maintenance.