

**CAPSTONE PROJECT REGISTER**

**Class**: **Duration time**: from ..………19/04/2024… To ..….…/ /2024…..

**(\*) Profession:** <Software Engineer> **Specialty**: <IS> 🗹

**(\*) Kinds of person make registers:**  Lecturer Hộp Văn bản Students

**1. Register information for the supervisor**

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| No. | Fullname | Phone | **E-Mail** | **Title** |
| Supervisor 1 | Lê Vũ Trường | 0939064868 | truonglv11@fe.edu.vn | Mr. |
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**2. Register information for students**

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|  | **Full name** | **Student code** | **Phone** | **Email** | **Role in Group** |
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**3. Register content of the Capstone Project**

**(\*) 3.1. Capstone Project name:**

* English: Building Wolrd GYM management system.
* Vietnamese: Xây dựng hệ thống quản lí Wolrd GYM
* Abbreviation: WGYM

1. **Context:**

Building a World GYM management system is necessary for many reasons, building a GYM management system not only improves customer experience but also increases operational efficiency and financial management for the business.

Efficient management: A GYM management system helps organize and efficiently manage the daily activities of the GYM. It reduces reliance on manual management and optimizes workflows.

Service optimization: The GYM management system provides opportunities to enhance customer experience through improved services and facilities. It enhances customer interaction, manages class schedules, facilitates workout scheduling, and provides detailed information about GYM services and amenities.

Member management: The system allows management of member information, including personal details, workout history, membership packages, and payments. This strengthens customer relationships and enables more effective marketing and member care strategies.

Increased operational efficiency: By optimizing class schedules, managing workout equipment, and organizing staff activities, the gym management system enhances operational efficiency and resource utilization.

Financial management: The GYM management system provides financial management tools such as member payments, revenue tracking, expense management, and financial reporting. This enhances transparency and financial control for the World GYM.

1. **Proposed Solutions**:

Provide a Web application for admin, staff, trainer and Mobile application for member that support:

* System Admin: manage memberships, classes and equipment.
* System staff: manage class, scheduleand member support.
* Trainer: class instruction, progress tracking, communicate with member
* Member: Browse and book class and trainer.
* Guests: Browse class and trainer.
* **Functional requirement**s:

**GYM Management system**

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| **System Admin** | | |
| **No.** | **Function** | **Description** |
| **1** | **Login** | Admin can log in with email and password to access its features. |
| **2** | **Membership Management** | Administrators/Managers can manage memberships, including creating new membership plans, updating existing plans, and handling membership renewals and cancellations. They have access to member databases and can view, edit, or delete member profiles as needed. |
| **3** | **Class Schedule Management** | Administrators/Managers can create, update, and manage class schedules. They can add new classes, edit existing class details such as time, instructor, and capacity, and remove classes when necessary. They ensure that class schedules are optimized to meet member demand and facility resources. |
| **4** | **Staff Management:** | Administrators/Managers are responsible for managing staff members. They can hire new staff, assign roles and responsibilities, create work schedules, track staff attendance, and handle staff performance evaluations. They ensure that the staffing levels are adequate to maintain smooth gym operations. |
| **5** | **Equipment Managemen** | Administrators/Managers oversee the management of gym equipment. They can add new equipment to the inventory, update equipment information such as condition and maintenance schedules, track equipment usage, and schedule repairs or replacements as needed. They ensure that all equipment is well-maintained and available for member use. |
| **6** | **Financial Management:** | Administrators/Managers handle the financial aspects of the gym. They oversee revenue generation, manage expenses, handle billing and invoicing, reconcile accounts, and prepare financial reports. They ensure that the gym's finances are in order and that financial goals are met. |
| **7** | **Reporting and Analytics:** | Administrators/Managers generate reports and analyze data to gain insights into gym operations and performance. They track key metrics such as membership growth, class attendance, revenue trends, and member satisfaction. They use this information to make informed decisions and implement strategies for improvement. |

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| **Staff (Front desk)** | | |
| **No.** | **Function** | **Description** |
| **1** | **Login** | Admin can log in with email and password to access its features. |
| 2 | Member Registration | Staff are responsible for registering new members into the gym system. They collect necessary information from individuals interested in joining, such as personal details, contact information, and membership preferences. Once gathered, they enter this data into the system to create new member profiles. |
| 3 | Class Booking: | Staff assist members with booking classes or appointments. They provide information about available classes, check class schedules, and help members book slots based on their preferences. They ensure that members are registered for classes correctly and receive any necessary confirmations. |
| 4 | Inquiries Handling | Staff handle inquiries from both existing and prospective members. They provide information about membership plans, class schedules, gym facilities, and other services offered. They address member concerns, resolve issues, and ensure that members have a positive experience during their interactions. |
| 5 | Payment Processing | Staff handle member payments for memberships, classes, personal training sessions, or other services. They process payments using various methods such as cash, credit/debit cards, or electronic transfers. They provide receipts for payments made and ensure that transactions are recorded accurately in the system. |
| 6 | Member Check-Ins: | Staff manage member check-ins at the gym facility. They greet members upon arrival, verify their membership status, and record their attendance in the system. They ensure that only authorized members access the gym premises and that check-in procedures are followed consistently. |
| 7 | Membership Renewals | Staff assist members with membership renewals when their current membership expires. They inform members about upcoming renewals, explain renewal options and benefits, and facilitate the renewal process. They ensure that membership records are updated accordingly after renewals are completed.trends, and member satisfaction. They use this information to make informed decisions and implement strategies for improvement. |
|  | Member Communication | Staff serve as a point of contact for member communication. They relay important information such as schedule changes, facility updates, or promotional offers to members. They address member inquiries via phone, email, or in-person interactions, providing timely and accurate responses to member queries. |

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| Instructors/Trainers | | |
| No. | Function | Description |
| 1 | Login | Admin can log in with email and password to access its features. |
| 2 | **Class Instruction** | Trainers lead and conduct fitness classes or training sessions according to the gym's schedule. They provide guidance, instruction, and motivation to participants, ensuring that exercises are performed safely and effectively. They demonstrate proper techniques, offer modifications for different fitness levels, and create a supportive environment for participants to achieve their fitness goals. |
| 3 | **Class Preparation** | Trainers prepare for their classes by designing workout routines or lesson plans tailored to the class format and participant demographics. They select appropriate exercises, choreograph movements, and plan progression strategies to ensure a well-rounded and engaging class experience. They also set up any necessary equipment or props before the class begins. |
| 4 | **Participant Engagement** | Trainers actively engage with participants during classes to maximize their involvement and enjoyment. They provide encouragement, feedback, and individual attention to participants as needed. They create a positive and motivating atmosphere that fosters camaraderie and helps participants stay focused and committed to their fitness goals. |
| 5 | **Safety Monitoring** | Trainers prioritize the safety and well-being of participants during classes. They closely monitor participants' form, technique, and exertion levels to prevent injuries and ensure proper execution of exercises. They intervene or provide corrections when necessary to maintain proper alignment and reduce the risk of injury. |
| 6 | **Progress Tracking** | Trainers track participants' progress and performance over time to assess their fitness levels and goals. They may keep records of attendance, track individual achievements, and monitor improvements in strength, endurance, flexibility, or other fitness metrics. They use this information to tailor workouts and provide personalized guidance to help participants reach their desired outcomes. |
| 7 | **Membership Renewals** | Staff assist members with membership renewals when their current membership expires. They inform members about upcoming renewals, explain renewal options and benefits, and facilitate the renewal process. They ensure that membership records are updated accordingly after renewals are completed.trends, and member satisfaction. They use this information to make informed decisions and implement strategies for improvement. |
|  | **Member Communication** | Trainers communicate with members before, during, and after classes to provide information, answer questions, and address concerns. They greet participants as they arrive, provide instructions and cues during class, and offer post-class feedback or recommendations for continued progress. They build rapport with members and create a supportive community within the gym environment. |

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| **Member** | | |
| **No.** | **Function** | **Description** |
| **1** | **Login** | Admin can log in with email and password to access its features. |
| 2 | **Class Booking** | Members can book classes or training sessions through the gym's system. They browse available classes, view class schedules, and reserve spots in their desired classes. This feature ensures that members can plan their workout routines in advance and secure their spot in popular classes. |
| 3 | **Facility Access** | Members have access to gym facilities based on their membership type and level. They can use gym equipment, attend fitness classes, access locker rooms, and utilize other amenities provided by the gym. Access control systems may be implemented to ensure that only authorized members can enter the gym premises. |
| 4 | **Personal Information Management** | Members can manage their personal information within the gym's system. They can update their contact details, address, emergency contact information, and other relevant information as needed. Keeping personal information up-to-date ensures that the gym can communicate with members effectively and provide personalized services. |
| 5 | **Membership Renewal:** | Members can renew their gym memberships through the gym's system. They receive notifications about upcoming membership expirations and can easily renew their memberships online. Renewing memberships ensures uninterrupted access to gym facilities and services. |
| 6 | **Class Attendance Tracking:** | Members' attendance in classes or training sessions is tracked within the gym's system. The system records when members check in for classes, allowing instructors and gym management to monitor attendance and track participation levels. This feature helps members stay accountable to their workout commitments. |
| 7 | **Payment Management** | Members can manage their payments and billing information through the gym's system. They can view their membership fees, make payments online, and set up automatic payment methods for recurring membership dues. Payment management features ensure convenient and secure transactions for members. |
| 8 | **Progress Tracking** | Members can track their fitness progress and goals within the gym's system. They may log workouts, record personal bests, track measurements, and set goals for themselves. Progress tracking features provide members with insights into their fitness journey and help them stay motivated to achieve their objectives. |

| **Guest** | | |
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| **No.** | **Function** | **Description** |
| 1 | **View to general information** | Explore important website details like company info, mission, contact, terms, privacy policy, and more for better understanding and navigation. |
| 2 | **View voucher** | View available vouchers on the website. |
| 3 | **Search & Filter** | Look up class with filters by name or advanced filter options |
| 4 | **View review** | Read user reviews for insights and feedback on class, and facility |
| 5 | **Membership Registration** | Members can register for gym memberships through the gym's system. They provide personal information such as name, contact details, and billing information to create their membership profile. Upon registration, they gain access to gym facilities, classes, and other member benefits. |
| **6** | **Send contact form** | A contact form that allows anyone to send to request Membership, reflect on service quality, etc. |
| **8** | **Help center** | Search for guides on topics or issues on the website using keywords to find relevant information, guides, and support. |

(\*) 3.2. Main proposal content (including result and product)

1. **Theory and practice (document):**

* Students should apply the software development process and UML 2.0 in the modeling system.
* The documents include User Requirement, Software Requirement Specification, Architecture Design, Detail Design, System Implementation, and Testing Document, Installation Guide, sources code, and deployable software packages.
* Server-side technologies:
* Server: Nodejs, Azure…
* Database Design: PostgreSQL.
* Client-side technologies:
* Web Client: HTML5, CSS3, Javascript, ReactJS.
* Mobile App: Flutter.

1. **Products:**

* GYM Booking Mobile Application
* GYM Managing Web Application

1. **Proposed Tasks:**

* Task package 1: Deploy Database
* Task package 2: Deploy GYM manage booking mobile application
* Task package 3: Deploy GYM manage system web application
* Task package 4: Deploy GYM Managing web application for manager/admin and system staff

4. Other comments.

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| **Supervisor**  *(Sign and full name)*    Lê Vũ Trường | HCM, date ……/2024  **On behalf of the Registers**  *(Sign and full name)* |