



**Faculty of Computers &
Artificial Intelligence**



Benha University

Gym Management System

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Thunder Geeks

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- For further inquiries, please contact:
 - Gym Phone: [Gym Phone Number]

1. Introduction

1.1 Project Overview

The Gym Management System facilitates efficient gym administration, allowing the admin to control user access and manage various aspects of the gym through a desktop application.

1.2 Objectives

- Streamline gym administration processes.
- Allow admin to add members, trainers, and manage equipment.
- Provide a user-friendly interface for trainers and members.

2. Project Idea

2.1 Problem Statement

The project addresses the need for digitizing gym administration, replacing manual record-keeping with a computer-based system. The admin now writes directly on the computer instead of using paper.

2.2 Solution

The admin creates an account on the application, adding members, trainers, and equipment. The system includes a password reset feature for user convenience. Additionally, members can now directly inquire about their subscription renewal date and membership status using their ID or phone number. The application further assists the admin in addressing various challenges.

2.3 Additional Challenges and Solutions

Challenge 1: Monthly Attendance Tracking

- **Solution:** The application enables the admin to track monthly attendance, making it easier to calculate the number of participants and manage gym occupancy.

Challenge 2: Trainer and Equipment Management

- **Solution:** The system provides real-time insights into the number of trainers, their salaries, and the condition of gym equipment. This helps the admin make informed decisions on hiring, equipment maintenance, and budget allocation.

Challenge 3: Theft Prevention and Equipment Lifecycle

- **Solution:** The admin can monitor the lifecycle of gym equipment, ensuring timely replacements. The system helps prevent theft by keeping a constant count of available equipment.

3. How It Works

3.1 Architecture

The desktop application, developed in Java, uses a local MySQL database. Admin controls member, trainer, and equipment data, ensuring real-time updates.

3.2 Features

- Account creation and login for admin.
- Admin control panel for member, trainer, and equipment management.

- Home screen displaying vital information.

3.3 Workflow

1. Admin creates an account.
2. Admin manages members, trainers, and equipment.
3. Quick password reset for members.
4. Home screen displays key information.
5. Members can inquire about renewal details using ID or phone number.

4. Technical Details

4.1 Technologies Used

- Java for application development.
- MySQL for local database storage.
- GitHub for the project <https://github.com/kamal-ayman/gym-management-system.git>

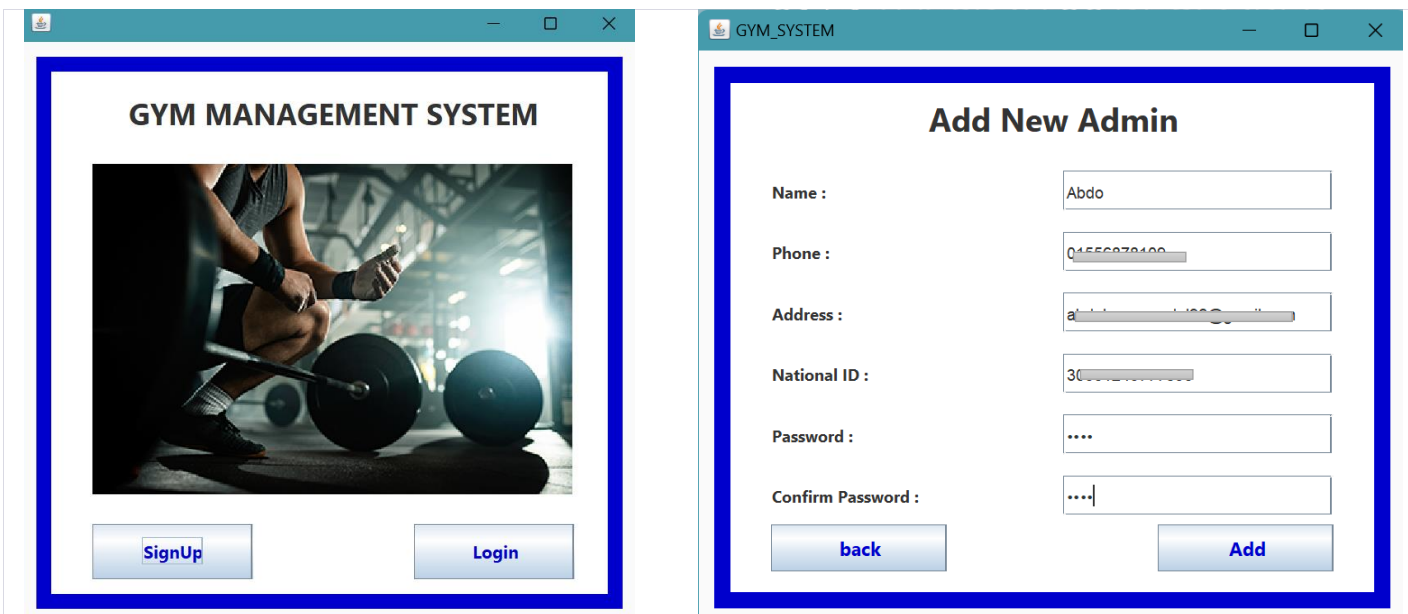
4.2 System Requirements

- Desktop computer.
- Internet connectivity for initial setup.

5. Screenshots

5.1 User Interface

The start of the desktop application:



After the administrator make the authentication he/she can login to the system.

GYM_SYSTEM

Admin

User Name :

Password :

[back](#) [Login](#)

[reset password](#)

If he/she forget the password it is easy to reset it.

Reset Password

Admin ID :

New Password :

Confirm new password :

[back](#) [reset](#)

After the sequence arrives to the home screen. Which he/she cans control the system.

Admin information Equipments

Trainers Add Trainers

Members Add Members

logout



5.2 Use Case Demonstrations

Admin Information

Name : *Abdo*

Phone : 0556678400

Address :

[back](#)

Machines Menu

Name : Adjustable Dunbell

Serial Number : 1234

Training Muscle : Hand Muscles

Trade Mark : Coach

Power : High

Name	Serial Number	Training Muscle	Trade Mark	Power
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[back](#) [Add](#)

Add A New Trainer

First Name :

Last Name :

Phone Number :

Trainer Gender : ☐ Male ☐ Female


Experince : Level 2

Age : 18

Work Time : AM


Email :

ID :

[back](#)  [add](#)

Search by: [Search](#) [Reset](#) [Delete](#)

id	name	phone	gender	Experince	age	Work Time	email
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[add Trainers](#)  [back](#)

6. Future Developments

6.1 Roadmap

- Implement online payment and membership renewal.
- Integrate notification system for membership renewal reminders.

6.2 Feedback Mechanism

Users can provide feedback through the application interface.

7. Conclusion

7.1 Achievements

- Digitized gym administration.
- User-friendly interface for admin control.

7.2 Acknowledgments

The Gym Management System was developed by the dedicated team :

- Abdelmoneim Adel Abdelmoneim
- Abdelhady Ayman Gouda
- Kamal Ayman Kamal
- Alyaa Gamal Gouda
- Menna Mahmoud Abdelmoumen

8. Reference

- Google chrome for data that we want to input in the system
- Getting some ideas from GitHub projects

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