



Programming (CS4001NP)

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Course Work

GROUP - C1

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Submitted By -:

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Turnitin Similarity Report

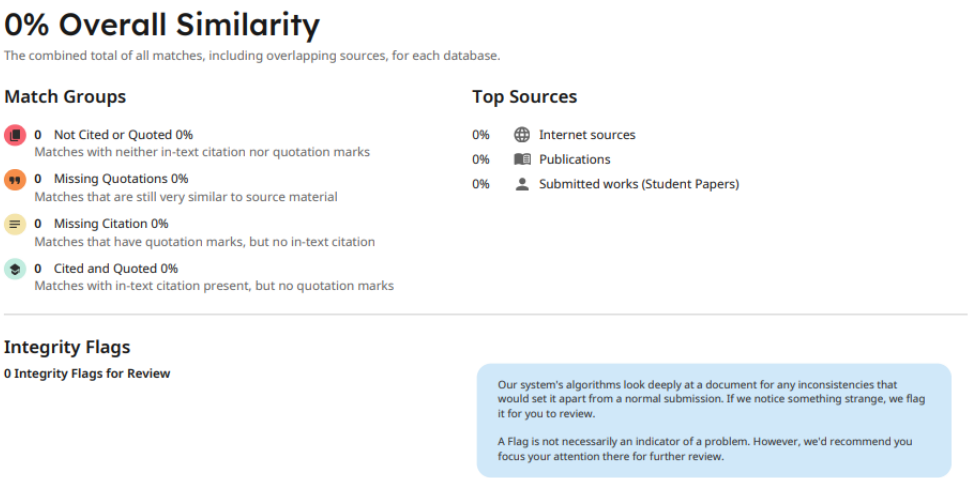


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1 Introduction

This Gym Management System is designed in a way that help gym admin to track and manage member details, including attendance, membership plans, and payments. It helps to stores data in a computer local which help to handle large data securely.

1.2 Aims & Objectives of Project

1. To make better GUI so that admin of gym management can use system easily.
2. To store members data safely in computer local file.
3. To store data in file as well as array list to handle large amount of data easy.
4. To handle payment related data, and inform or remind customer and management if payment is due.
5. To track daily attendance of members.
6. To activate and deactivate membership easily.
7. Members data backup and recovery

2 Wireframe

Wireframes is blueprints or map of system which help developer to make UI based on wireframe so that they don't need to change code later after final product. It also helps client to know what type of product will be built in future.

[illegible]

Figure 2 : Wireframe of Gym Management System

In the above image shows, wireframe or sketch of gym management system which we will build using java. We made this *low fidelity wireframe* using Balsamiq tool. We include different input fields like input text, radio buttons, button, dropdown etc. It is more user-friendly because we keep input field on left side and buttons on right side, which makes user to access features easily.

3. Developed GUI

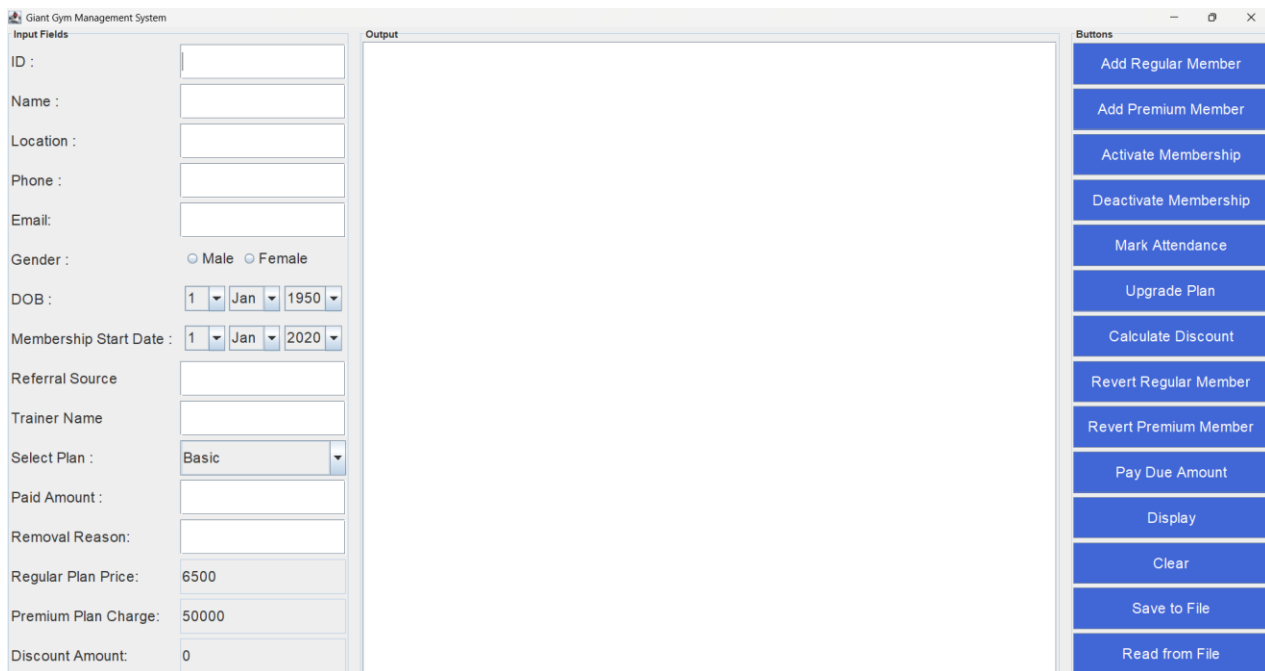


Figure 3 : Developed GUI

In the above image shows developed GUI that i have developed by using java and swing library. We have added different input fields like JTextField, JComboBox, Buttons, Radio Buttons, etc. In this system gym admin can add, remove, track member or customer details easily. In left side I have kept input fields where user can input data, in center there is display portal where data is displayed & in right side there is buttons section.

4 Testing

Testing is a step-by-step process to checking whether the developed system works properly or not. In big companies there are separate department who does several test to give better experience to user. It helps to find or solve different bugs before system launch. If test found fail then it will be resent to developing team to solve.

4.1 Objective

- To check whether the system works as expected or not.
- To check system is user-friendly or not (smooth, optimized).
- To check if the system is compatible with other devices.
- To find if the app has bug or not.

4.2 Tools Used in Testing

Device: Laptop (Windows 11 Pro).

Software/Tools: VS Code Extension, IntelliJ IDEA, Command Prompt, etc

4.3 Test 1

Test Id	T01
Objective	Compile and run program using Command/Terminal
Action	<ol style="list-style-type: none"> 1. Go to the terminal 2. Change folder or directory to folder where java file exist 3. Type "javac filename.java" 4. After compilation type "java className"
Expected Result	Program should run from command prompt without error
Actual Output	Program runs as expected without error
Test Status	Passed

Table 1 : Test 1

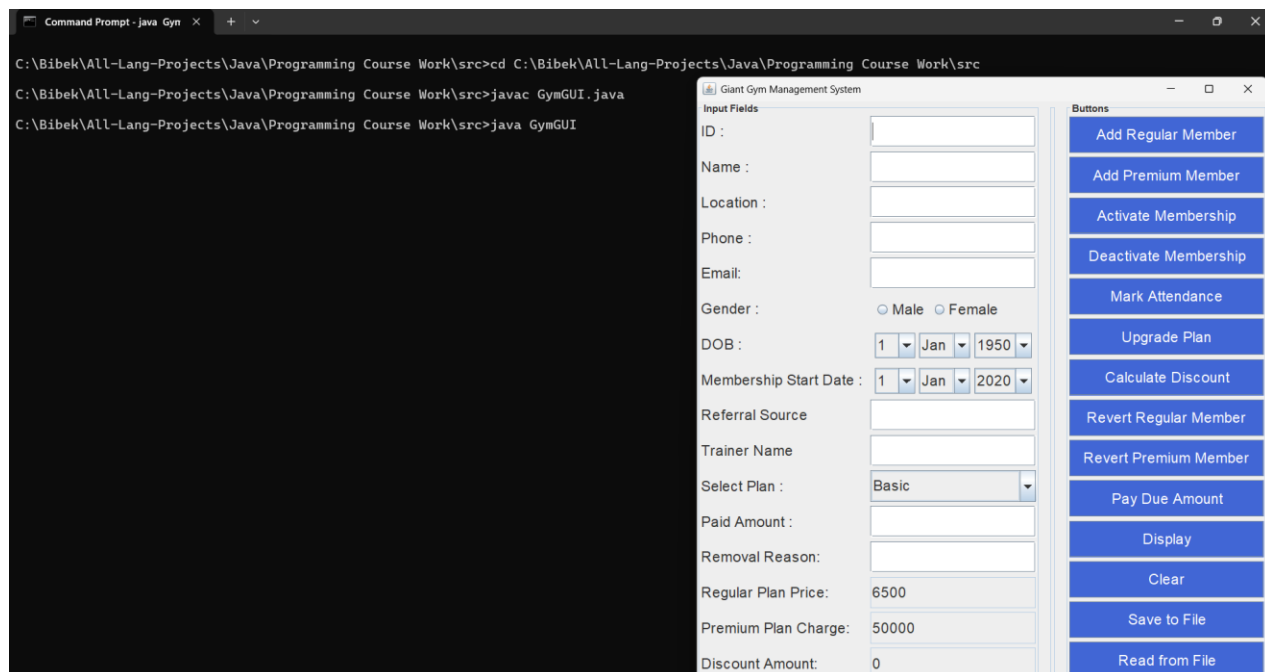


Figure 4 : Running Program From Terminal

In the above image shows that, running program from terminal or command prompt. First I have change current directory to that directory where java file exist by typing cd file path.

After that java file compiled with command `javac file.java` and then run compiled java file by typing `java className`.

4.4 Test 2

Test Id	T02
Objective	Add Regular member and Premium member. If id already exist then show error message
Action	<ol style="list-style-type: none">1. Fill empty input field & click Add Regular Member2. Enter same id twice3. Change id and other details and click Add Premium Member
Expected Result	Premium and Regular member should be added if id is not duplicate and should show proper message
Actual Output	Program runs as expected, when id is duplicate then shows error otherwise member added successfully and shows message
Test Status	Passed

Table 2 : Test 2

Input Fields

ID : 100

Name : Bibek Poudel

Location : Pokhara-1, Simpani

Phone : 9856565656

Email: bibekpoudel@gmail.com

Gender : ☒ Male ☐ Female

DOB : 11 Jan 2006

Membership Start Date : 8 Apr 2025

Referral Source Ram Bahadur

Trainer Name

Select Plan : Basic

Paid Amount :

Removal Reason:

Regular Plan Price: 6500.00

Premium Plan Charge: 50000

Discount Amount: 0

Buttons

Add Regular Member

Add Premium Member

Activate Membership

Deactivate Membership

Mark Attendance

Upgrade Plan

Calculate Discount

Revert Regular Member

Revert Premium Member

Pay Due Amount

Display

Clear

Save to File

Read from File

Message

Regular member added successfully

OK

Figure 5 : Adding Regular Member

In the above image show, adding regular member by filling required input fields.

Input Fields

ID : 100

Name : Ram Poudel

Location : Pokhara-1, Bagar

Phone : 9856234841

Email: rampoudel@gmail.com

Gender : ☒ Male ☐ Female

DOB : 12 Mar 2007

Membership Start Date : 7 Apr 2025

Referral Source Social Media

Trainer Name Hari Bahadur

Select Plan : Basic

Paid Amount :

Removal Reason:

Regular Plan Price: 6500.00

Premium Plan Charge: 50000

Discount Amount: 0

Buttons

Add Regular Member

Add Premium Member

Activate Membership

Deactivate Membership

Mark Attendance

Upgrade Plan

Calculate Discount

Revert Regular Member

Revert Premium Member

Pay Due Amount

Display

Clear

Save to File

Read from File

Message

Member ID Duplicate

OK

Figure 6 : Entering Duplicate Id

In the above image shows, when entered same id then shows error message “Member ID Duplicate”.

The screenshot shows the 'Giant Gym Management System' window. On the left, there are 'Input Fields' for member details. The 'ID' field contains '102'. The 'Name' field contains 'Ram Poudel'. The 'Location' field contains 'Pokhara-1, Bagar'. The 'Phone' field contains '9856234841'. The 'Email' field contains 'rampoudel@gmail.com'. The 'Gender' field has 'Male' selected. The 'DOB' field shows '12 Mar 2007'. The 'Membership Start Date' field shows '7 Apr 2025'. The 'Referral Source' field contains 'Social Media'. The 'Trainer Name' field contains 'Hari Bahadur'. The 'Select Plan' dropdown is set to 'Basic'. The 'Paid Amount', 'Removal Reason', 'Regular Plan Price' (6500.00), 'Premium Plan Charge' (50000), and 'Discount Amount' (0) fields are also visible. In the center, a 'Message' dialog box displays 'Premium member added successfully' with an 'OK' button. On the right, there is a 'Buttons' panel with the following options: Add Regular Member, Add Premium Member, Activate Membership, Deactivate Membership, Mark Attendance, Upgrade Plan, Calculate Discount, Revert Regular Member, Revert Premium Member, Pay Due Amount, Display, Clear, Save to File, and Read from File.

Figure 7 : Entering unique id and adding premium member

In the above image shows, added premium member when keep unique id when add premium member button pressed.

4.5 Test 3

Test Id	T03
Objective	Check Mark Attendance button works or not
Action	<ol style="list-style-type: none"> 1. Enter Id then click mark attendance 2. Click Activate Membership 3. Click mark attendance again 4. Display updated details
Expected Result	<ol style="list-style-type: none"> 1. If membership is deactivated, it should show error message

	2. If the membership is active, it should increase the attendance, update loyalty points & show a success message 3. Displays updated detail
Actual Output	Program runs as expected
Test Status	Passed

Table 3 : Test 3

The screenshot displays the 'Giant Gym Management System' interface. On the left, the 'Input Fields' section contains various form elements for member registration and management, including ID, Name, Location, Phone, Email, Gender (Male/Female), DOB, Membership Start Date, Referral Source, Trainer Name, Select Plan (Basic), Paid Amount, Removal Reason, Regular Plan Price (6500), Premium Plan Charge (50000), and Discount Amount (0). The 'Output' section on the right shows member details for Member ID: 1, Name: Bibek Poudel, Type: Regular, Location: Pokhara, Phone: 984606515, Email: bibek@gmail.com, Gender: Male, Date of Birth: 1/Jan/2007, Membership Start Date: 7/Apr/2025, Status: Inactive, Attendance: 0, Loyalty Points: 0.0, Plan: basic, Price: 6500.0, and Referral Source: Social. A 'Buttons' panel on the far right includes actions like 'Add Regular Member', 'Add Premium Member', 'Activate Membership', 'Deactivate Membership', 'Mark Attendance', 'Upgrade Plan', 'Calculate Discount', 'Revert Regular Member', 'Revert Premium Member', 'Pay Due Amount', 'Display', 'Clear', 'Save to File', and 'Read from File'. A modal message box is centered over the interface, displaying an information icon, the text 'Member not active', and an 'OK' button.

Figure 8 : Marking Attendance for deactivated ID

In the above image shows, when mark attendance button clicked for deactivate user then shows error message “Member not active”.

Giant Gym Management System

Input Fields

ID : 1

Name :

Location :

Phone :

Email :

Gender : ☐ Male ☐ Female

DOB : 1 Jan 1950

Membership Start Date : 1 Jan 2020

Referral Source

Trainer Name

Select Plan : Basic

Paid Amount :

Removal Reason:

Regular Plan Price: 6500

Premium Plan Charge: 50000

Discount Amount: 0

Output

Member ID: 1
 Name: Bibek Poudel
 Type : Regular
 Location: Pokhara
 Phone: 984606515
 Email: bibek@gmail.com
 Gender: Male
 Date of Birth: 1/Jan/2007
 Membership Start Date: 7/Apr/2025
 Status: Inactive
 Attendance: 0
 Loyalty Points: 0.0
 Plan: basic
 Price: 6500.0
 Referral Source: Social

Message

Membership activated

OK

Buttons

Add Regular Member
 Add Premium Member
 Activate Membership
 Deactivate Membership
 Mark Attendance
 Upgrade Plan
 Calculate Discount
 Revert Regular Member
 Revert Premium Member
 Pay Due Amount
 Display
 Clear
 Save to File
 Read from File

Figure 9 : Activating Membership

In the above image shows, activating membership for mark attendance.

Giant Gym Management System

Input Fields

ID : 1

Name :

Location :

Phone :

Email :

Gender : ☐ Male ☐ Female

DOB : 1 Jan 1950

Membership Start Date : 1 Jan 2020

Referral Source

Trainer Name

Select Plan : Basic

Paid Amount :

Removal Reason:

Regular Plan Price: 6500

Premium Plan Charge: 50000

Discount Amount: 0

Output

Member ID: 1
 Name: Bibek Poudel
 Type : Regular
 Location: Pokhara
 Phone: 984606515
 Email: bibek@gmail.com
 Gender: Male
 Date of Birth: 1/Jan/2007
 Membership Start Date: 7/Apr/2025
 Status: Inactive
 Attendance: 0
 Loyalty Points: 0.0
 Plan: basic
 Price: 6500.0
 Referral Source: Social

Message

Attendance marked successfully

OK

Buttons

Add Regular Member
 Add Premium Member
 Activate Membership
 Deactivate Membership
 Mark Attendance
 Upgrade Plan
 Calculate Discount
 Revert Regular Member
 Revert Premium Member
 Pay Due Amount
 Display
 Clear
 Save to File
 Read from File

Figure 10 : Mark Attendance Successfully

In the above image shows, mark attendance button click then it successfully marks and shows message for confirmation. Internally it adds loyalty points and attendance.

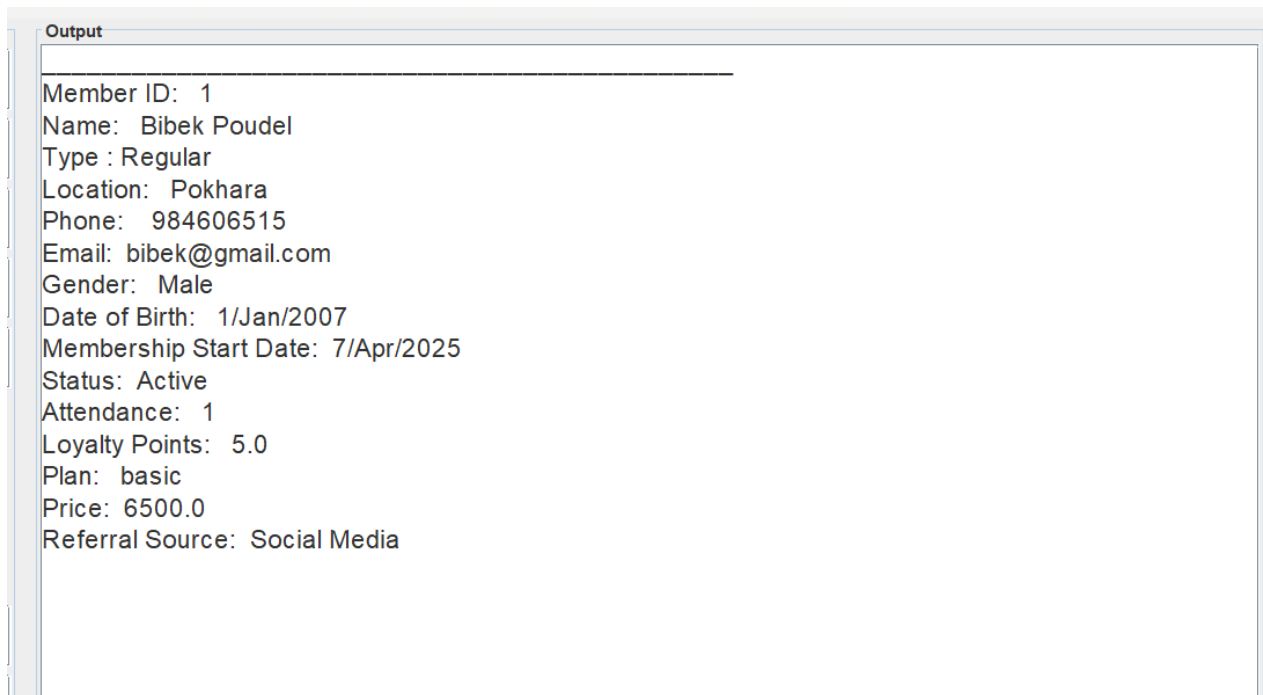


Figure 11 : Displaying detail after mark attendance

In the above image shows, updated detail after mark attendance clicked. We can see attendance and loyalty point updated by 1 & 5 respectively for regular member.

4.6 Summary of Test Report

Total Tests	Passed Tests	Failed Tests
3	3	0

Table 4 : Summary of Test Report

5 Conclusion

Second milestone has been successfully completed which teaches a lot of things on java. This coursework focuses mainly on making multiple class and join together to make functional system, GUI, implementing OOP pillars which make code modular, maintainable & reusable. We mostly focused on making better user interface, implementation of different features like adding removing member in gym system, etc. I have provided wireframe and original developed picture in the above. I have done several tests like testing mark attendance, adding removing member, running program via terminal, etc.

5 References