Software Engineering

[CSI_5_SFE] – 2019-20

Coursework 1 – Individual Development Project

GYM MANAGEMENT SYSTEM

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❖ Introduction

We all know health is wealth. There is not benefit of having a fancy car, big apartment, a doctor's degree without a health. Being healthy is a first approach which we need to keep in mind because most of the time our attitude depend on how we feel. Being healthy and fit is more important and directing towards to tension free life. Physical fitness includes healthy diet, exercise and sleep. Sometime people are not paying attention towards to the very basic things which are really having key elements on every individual's life. Undoubtedly everyone should be very careful and sensible in relation to moving towards to gaining healthy life.

For the progress and survival of any business, website plays the important role. Not having any website completely missed out the most important powerful Marketing tools which should be available to the consumers. Especially now a days all businesses should have a website or an app which user can approach easily.

It's a technology period and people are approaching online for any services, shopping and for research products and companies before they of any purchase. For the marketing research, and demand of consumer, online dependency, we decided to develop a website for gym where customer can get all information easily like enrol, plan, dietary requirement and any classes through app or a website.

It used to be that clients regularly using MS Excel and paper work to maintains their records and data. Although, such plans for not authentic and feasible to share such data from multiple system in multi user environment. It was creating lot of duplication, and more chances of mistake. Where every time the records are changed they need to update each and every excel life. This Smart Gym System will enhance chance to keep the existing customers and attracting more new.

This system will definitely Increased efficiency and effectiveness, automation, accuracy, user-friendly interface, information availability, communication, capacity, maintenance, cost reduction makes our system smarter than the existing system. We integrate some new and prominent features along with all the necessary features.

Why I decided to choose this topic because Our proposed "Smart Gym Management System" is for those who run a gym business. Research work on all areas is more important to overcome any major difficulties (it's a first and basic rule). We examined carefully about how to make a huge registering system without failure as well as different functions for different kind of user depending on their privilege.

The Gym Management requires a system which will be able to handle all the necessary, hidden, open task who's helps to run the database smoothly. Where they can maintain all safety and security measures as per the users requirements. They require a software, which will store data about members, employees, products, payroll, receipts of members & all transactions that occur in Gym.

The objective of the **"Gym Management System"** is to provide a system which handles the information of the people coming into the gym and maintaining their health care records as well as their weekly, monthly or quarterly plans. It takes care of all their health information as well as gym routine. It's even maintains the data of their nutritional needs as per their dietary requirements. All data will be stored in the database and its fully maintain by the data protection act and all security features.

The main objectives for this project are:

- User can get easy access via app
- User can raises their queries and can contact with any trainer
- Can book sessions on their own without any hassle
- Can amend their personal record
- Give them information

❖ Development process (Software)

Defining a problem

Every project is defining a problem which is also very important for the growth. The main objective is focus on solving any upcoming, ongoing and hidden problem for the and business and find a positive solution to resolve it. Therefore I believe that this system will have all the measure which determined the scope of the new system. This part including 2 different parts. The 1st task within this activity is to reviews the organization needs that originally initiated the project.

On the second part, the main focus to identify the theoretical general level and to run with the maximum capabilities of this system. For sure, it helps to achieve and define the goal and partitioning of the system. Better system also giving the reflection of a clear and better understanding of building a system otherwise its putting the whole system into the risk and lead towards to the failure. The clarity of system specifies the resources which have to be made available to the project. Project term of reference called on goals, resources limits an project bounds.

Feasibility

During the feasibility study the objectives of systems set on during the distribution on the basic from which the work of system design is initiated. Most of the activities are involved at this stage, and technicality required for the certain level of experience during designing systems, solid computer knowledge, all related technology and full understanding of computers. Key part of it to understand that what are the various facilities are available in the market and what facilities are provided by the vendors. however, a system cannot be designed in segregation without the active involvement of the user.

Undoubtedly, user having a very important character or part at this point. We are already aware of collecting data at the stage of feasibility study also be useable for streamline and systematic during the design. Here, another important point is more considerable that detail study is not required at the stage of feasibility study. On the Feasibility study's plan the detailed study will be different and the design stage will also be different for the purpose of any investigation for this requirement.

The system investigation is also deal with an urgent activity. Rarely but Sometimes too such investigation might segregate stages between feasibility study and computer system design. new system Designing is a very creativity process, whom also shows very logical and lateral thinking. This is very logical approach whom involving systematic moves follow the end product, remember it that keeping in mind that the personnel capabilities reflecting the ideas after the usual functionality and equipment's. Its ensuring that no need to made an efforts to fit older solutions into new situations.

The feasibility study proposes one or more conceptual solutions to the problem set forth project. The main focus on feasibility assessing is to control even project development has an appropriate chance of success. It determining the system's output and input. The below mentioned are useful for the project feasibility.

Technical feasibility: At first it's necessary to check that the proposed system is technically f feasible or not& to determine the technology and skill necessary to carry out the project. there availability is to find the solution towards obtain.

Economic feasibility: When consider the economic feasibility the point of consideration to focus on performance, information and production from the system. It should be sustain cost and benefit of the developing system must. concentration on project should be the first priority as it will give great outcome and response back quicker. Another important part is cost effectiveness

Social feasibility: Initially any amendment in the system is targeting to reliving the work load of the users to extent the system is going to facilitate user to perform Operations like calculating salary amounts and deductions, generating reports with equipment at each decision making step. Lateral thought implies encompassing of less possible errors.

❖ Requirements

I have chosen this project called Gym database management and transactions. This system is offering an easy and user friendly automate database management and transactions system. It has a facility to keep the record of employee, gym member, payroll record, invoices, classes, session and products information. This system provides data storing & report generation with graphical user interface (GUI).

2.1 System Study

recognizing the problems and thoroughly study the existing system is a key feature for both existing and new system. In that way it become more helpful to understand the requirements of the new modern and amended system. Study of this system remain helpful towards to finding any alternatives and different solution for constant improvements.

The project study basically deals with different operations:

1: Data Gathering

2: Study of Existing System

3: Analysing Problem

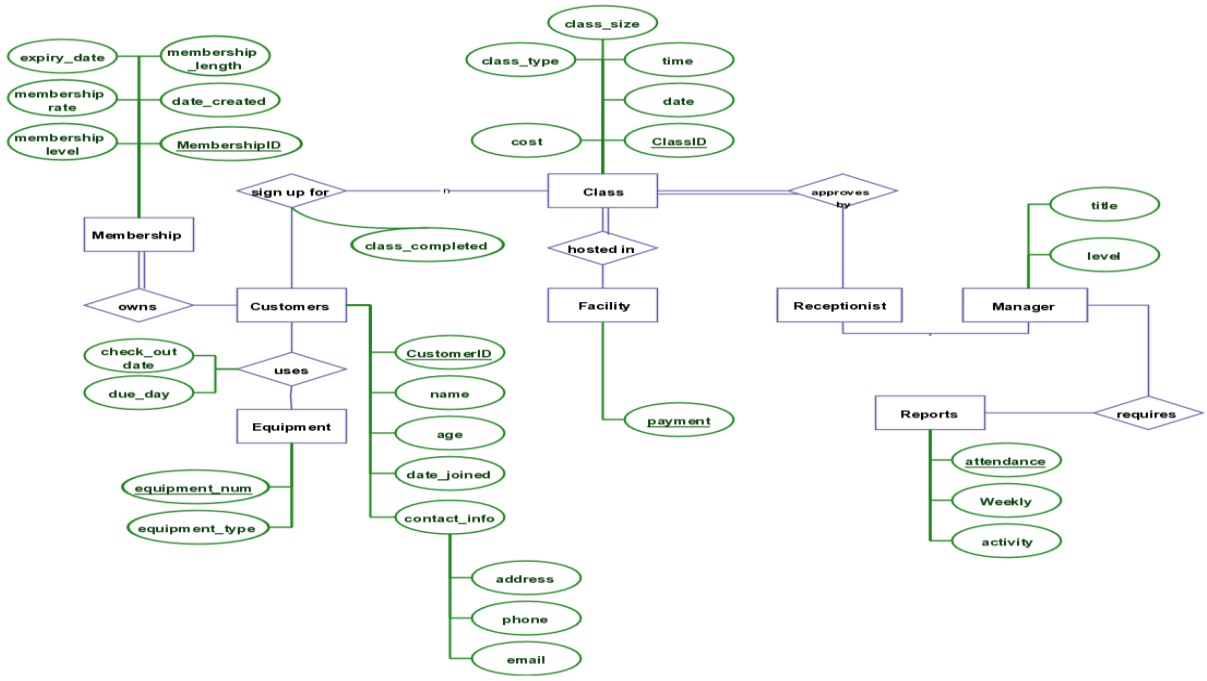
4: Studying various documents

5: Feasibility study for further improvements

❖ Design

Design is basis of all these requirement which are listed below

- **User case diagram**



- **User stories**

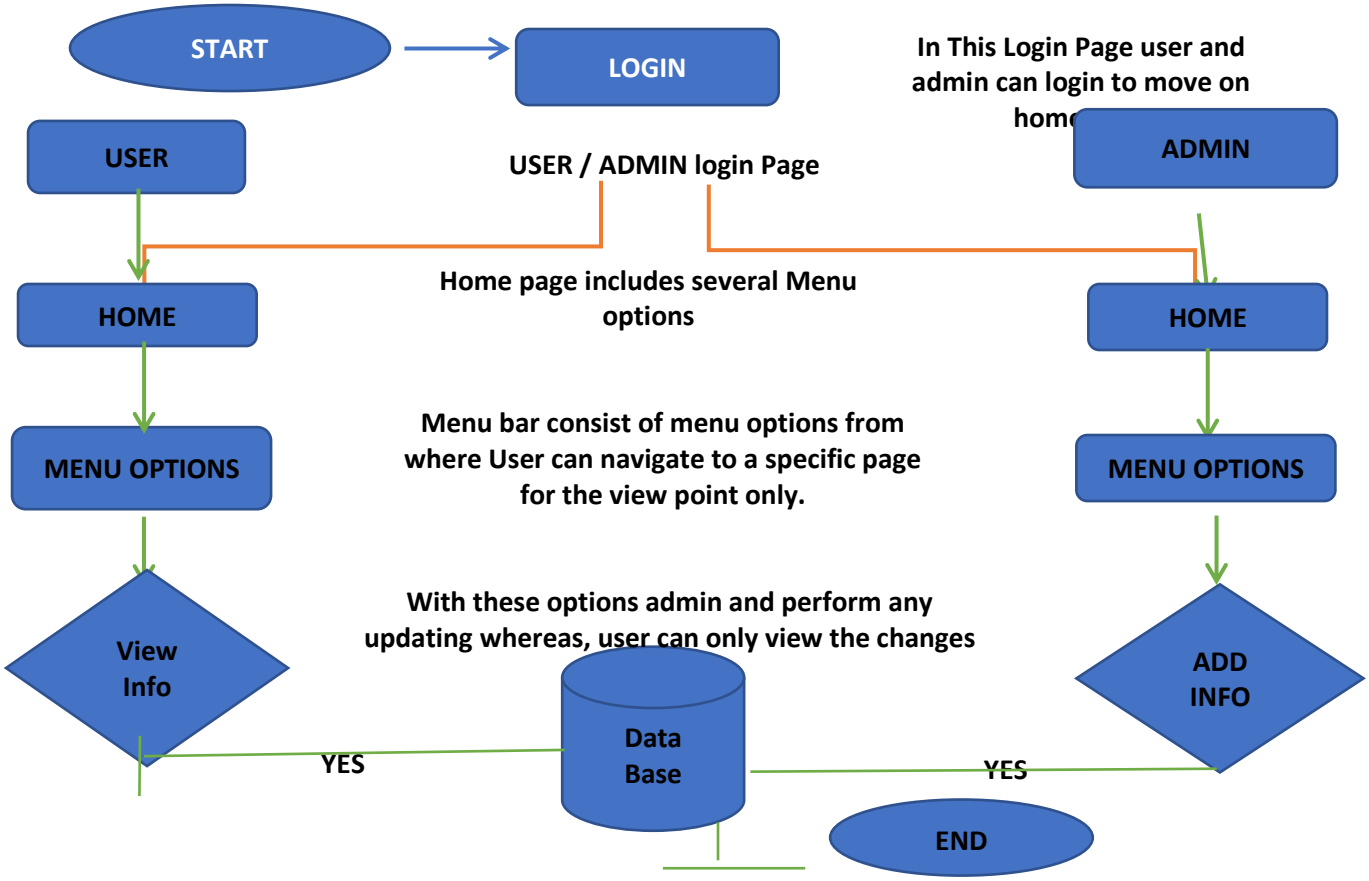
This design will be very helpful for the gym system user both customers and staff. This system will store the given data into the database including strict security measure. User can use as per their requirements and staff can amend the record as per new program in place. The user will be able to click the provided link where they will choose section, classes and programmes whom they are interested for. This user case diagram showing all the related links and ways whom the user can easily interact with this system. It's clearly shows all the features and factors which will positively effecting the system

- It will be helpful the users to choose the right classes and session as per their need
- It's not very time consuming to stick over the phone to get access gym management system.
- User can easily access via APP regardless of being anywhere (easy access)
- In fact it's very handy that a user doesn't need to access on computer but they can do it if they want
- User have online help which will also saving their time.
- User can get quick access without wasting any more time to search
- User can search for special offers who's available for registered users only
- User can easily amend their personal data and their monthly plans

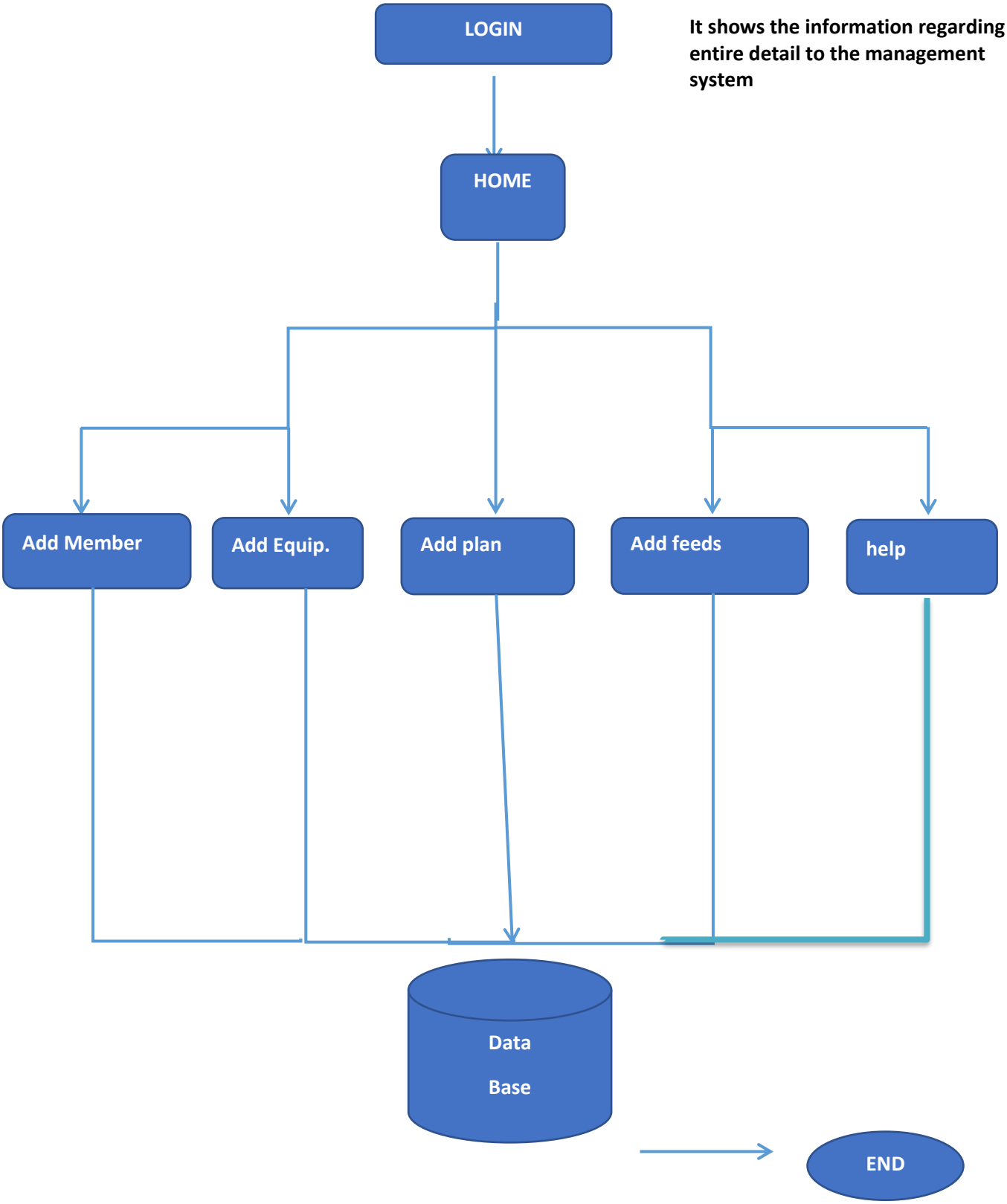
❖ Diagram (activity)

Data Flow Diagram

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modelling its process aspects. The usage of DFD is to show a preliminary step which create system's overview. DFDs is also useful for the visualization of data processing. A DFD also modify and give the view of type of required information and how use for input to and output to the system like frequency of data (where the data will come and go to, and where the data will be stored in). For sure it's not providing about the timing process and information about processes.



It defines the flow of the application built in java standard edition moreover it is the symbolic representation of the project.



- **Review (Technical)**

I have done a project on Gym Management and database management and transactions. This system is proposed to be an automate database management and transactions. This stores employee, member, payroll, receipts, and products information. It also provides the facility of search & advanced search for searching the records efficiently & immediately. This system provides data storing & report generation with graphical user interface (GUI).

Following are the steps taken during the initial study:

Initial part is to collect all relevant information, whom going to be store. After that I thoroughly studied and planned manual working to the current system . I noted the limitation of that system which motivated them to have new system. After having all these manual working, I got a clear picture and a great ideas about the required system and a better vision of any outcome of the developed system.

The most important thing is to study system thoroughly. I had a good comparison of both system (existing and proposed system) which would be more helpful to understand advantages and disadvantages of the systems and can be understood easily. Some analysis and projections was done regarding changes to be made to the existing system.

Existing System

An Existing system refers to the system that is being followed till now. The gym is working manually. The current system is very old fashioned which based on lots of paper work including membership form, which also badly effect on cost. To manually handle the system was very difficult task. But now-a-days computerization made easy to work.

The following are the reasons why the current system should be computerized:

1. To increase efficiency with reduced cost.
2. To reduce the burden of paper work.
3. To save time management for recording details of each and every member and employee.
4. To generate required reports easily.

Proposed System

The online gym management system is user-friendly application. This new modern automated system shows better sign of improvement and their functionality is also very user friendly and its beneficial for both (employee, customers). It is very simple in design and to implement. The system requirements are very low. System resources and the system will work in almost all configurations.

It has the following objectives:

1. Enhancement:

The main objective of Smart Gym Management System is to enhance and upgrade the existing system by increasing its efficiency and effectiveness. The software improves the working methods by replacing the existing manual system with the computer-based system.

2. Automation:

This new Gym Management System changes completely from manual to automation which improve the activity and give the quick response throughput in the day activity. Thus the response time of the system is very less and it works very fast.

3. Accuracy:

This Gym Management System helps to provide quick and accurate response with very correct information about any raised query or information. Accuracy and efficiency is key element as per the desire and requirement

User-Friendly:

This gym software system is undoubtedly user friendly. Thus the users will feel very easy to work on it. The software provides accuracy along with a pleasant interface. Make the present manual system more interactive, speedy and user friendly.

4. Availability:

It's also very easy to retrieve any payment transaction or any required reports with very easy commands. Hence, there will be no delay for generating such information, can be produced as per the requirement along with recent and old.

5. Maintenance Cost:

Reduce the cost of maintenance.

6. Merits of new system:

Firstly, it is the best way to stop deforestation along with this it is one of the easiest method to register a new member as well as trainer or instructor.

1. It is easy.
2. It is time saving way.
3. It is more efficient.
4. It is secure.
5. It is easy to use

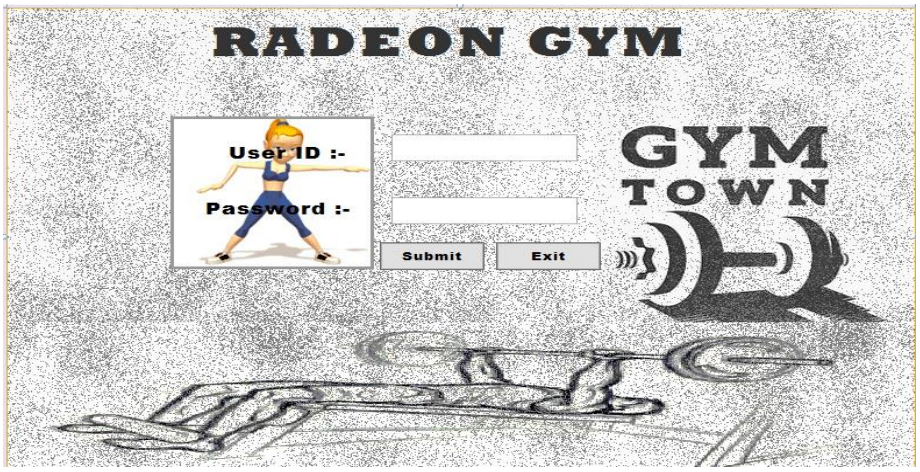
❖ Implementation

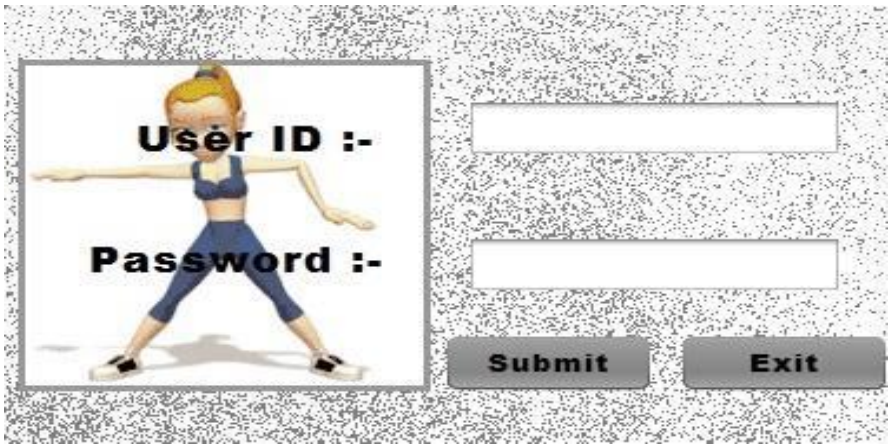
I have follow the MVC (Model View Controller) design the pattern for developing this system. Model–view– controller (MVC) is a unique software who design those required pattern for implementing user interfaces on computers. It divides a given software application into three interconnected parts, so as to separate internal representations of information from the ways that information is presented to or accepted from the user.

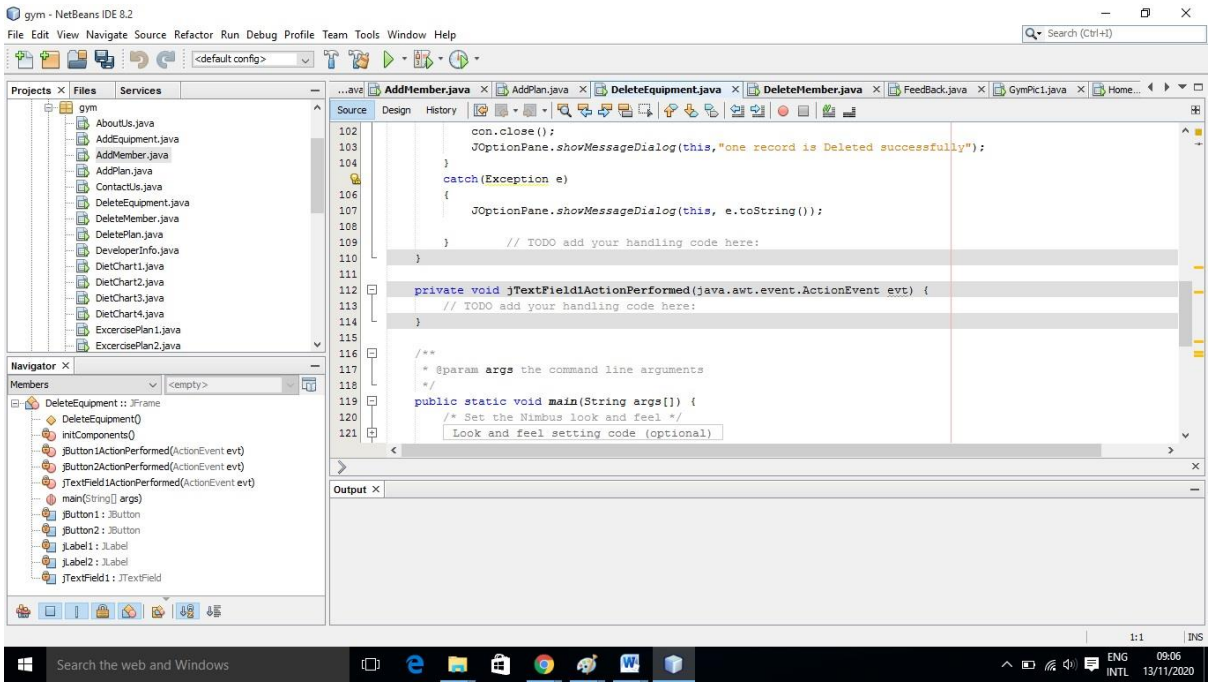
- **Model:** All behaviour and the application of the data which manages model and the behaviour of the data of the application domain. Its responds the information requests from the view or state, and then it responds to the instructions to change state (usually from the controller).

- **View:** The view manages the display of information.

- **Controller:** The controller interprets the mouse and keyboard inputs from the user, informing the model and/or the view to change as appropriate.


RADEON GYM
User ID :-
Password :-
Submit
Exit
GYM
TOWN


User ID :-
Password :-
Submit
Exit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AddPlan.java
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DietChart2.java
DietChart3.java
DietChart4.java
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ExcercisePlan2.java
Navigator
DeleteEquipment :: JFrame
DeleteEquipment()
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jButton1ActionPerformed(ActionEvent evt)
jButton2ActionPerformed(ActionEvent evt)
jTextField1ActionPerformed(ActionEvent evt)
main(String[] args)
jButton1 : JButton
jButton2 : JButton
jLabel1 : JLabel
jLabel2 : JLabel
jTextField1 : JTextField
AddMember.java
AddPlan.java
DeleteEquipment.java
DeleteMember.java
FeedBack.java
GymPic1.java
Source Design History
con.close();
JOptionPane.showMessageDialog(this,"one record is Deleted successfully");
catch(Exception e)
JOptionPane.showMessageDialog(this, e.toString());
// TODO add your handling code here:
private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
/**
* @param args the command line arguments
*/
public static void main(String args[]) {
/* Set the Nimbus look and feel */
Look and feel setting code (optional)
Output
Search the web and Windows
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09:06
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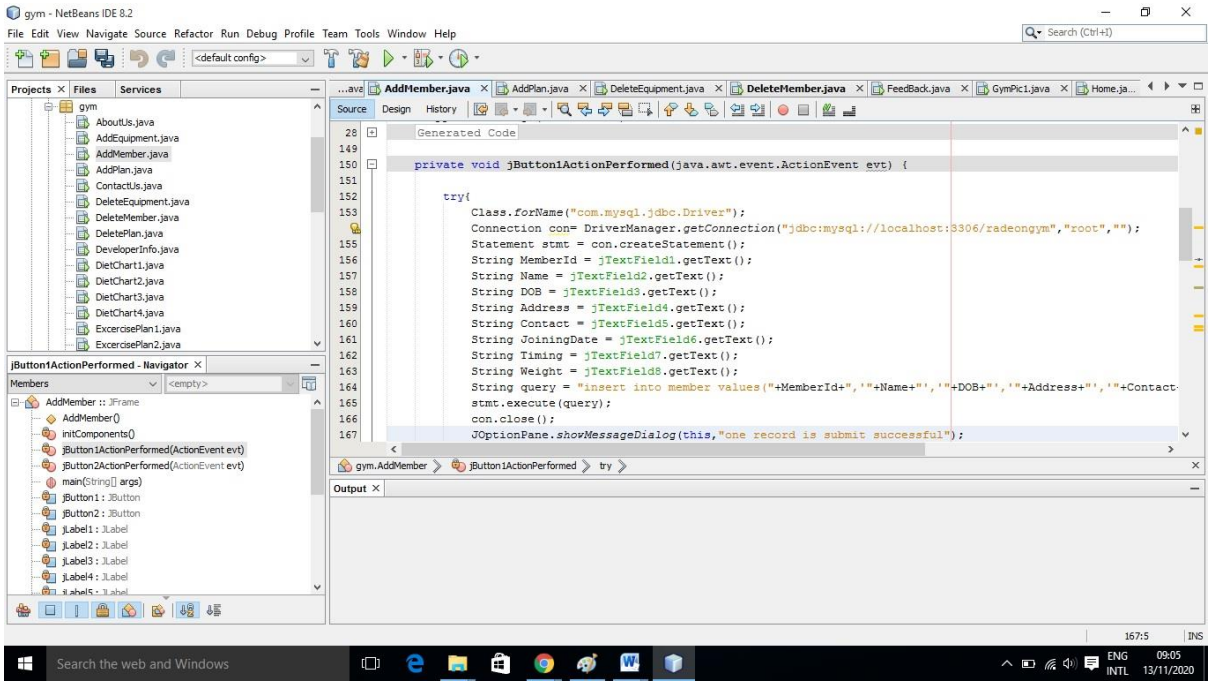
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AddPlan.java
ContactUs.java
DeleteEquipment.java
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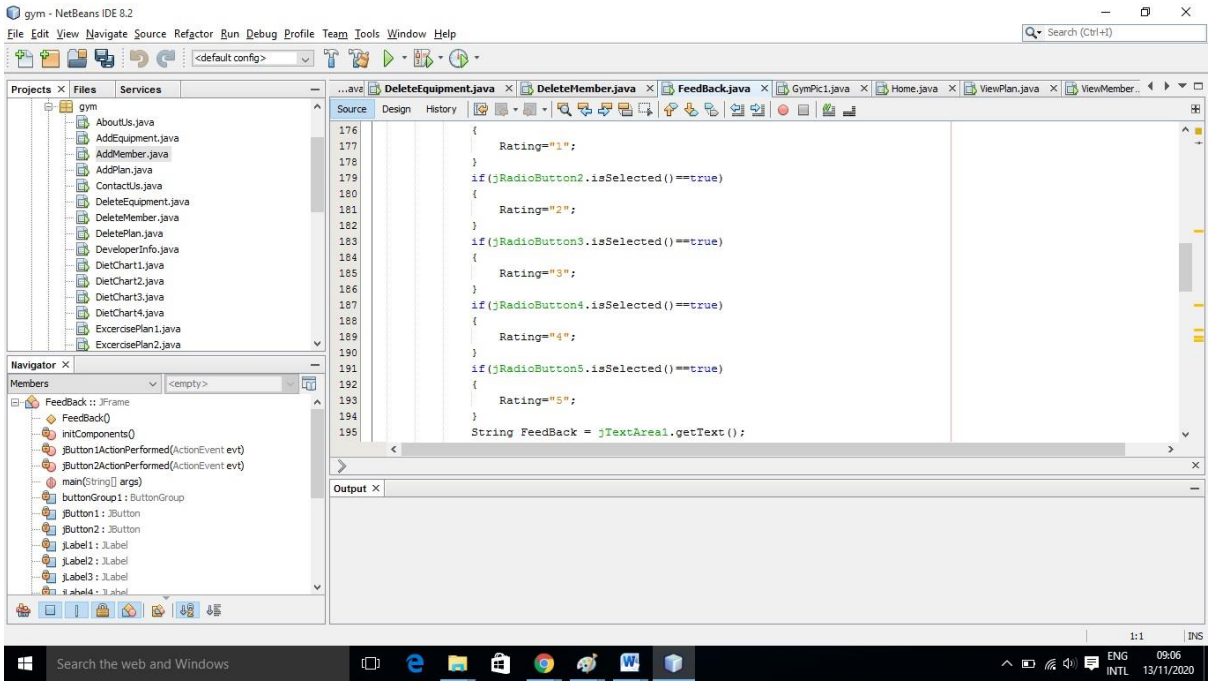
jButton2ActionPerformed(ActionEvent evt)
main(String[] args)
jButton1 : JButton
jButton2 : JButton
jLabel1 : JLabel
jLabel2 : JLabel
jLabel3 : JLabel
jLabel4 : JLabel
...ave AddMember.java AddPlan.java DeleteEquipment.java DeleteMember.java FeedBack.java GymPic1.java Home.ja...
Source Design History
Generated Code
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
try{
Class.forName("com.mysql.jdbc.Driver");
Connection con= DriverManager.getConnection("jdbc:mysql://localhost:3306/radeongym","root","");
Statement stmt = con.createStatement();
String MemberId = jTextField1.getText();
String Name = jTextField2.getText();
String DOB = jTextField3.getText();
String Address = jTextField4.getText();
String Contact = jTextField5.getText();
String JoiningDate = jTextField6.getText();
String Timing = jTextField7.getText();
String Weight = jTextField8.getText();
String query = "insert into member values("+MemberId+",'"+Name+"','"+DOB+"','"+Address+"','"+Contact
stmt.execute(query);
con.close();
JOptionPane.showMessageDialog(this,"one record is submit successful");
gym.AddMember jButton1ActionPerformed try
Output
167:5 INS
Search the web and Windows
ENG INTL 09:05 13/11/2020


gym - NetBeans IDE 8.2
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AddEquipment.java
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DeleteEquipment.java
DeleteMember.java
DeletePlan.java
DeveloperInfo.java
DietChart1.java
DietChart2.java
DietChart3.java
DietChart4.java
ExcercisePlan1.java
ExcercisePlan2.java
Navigator
Members
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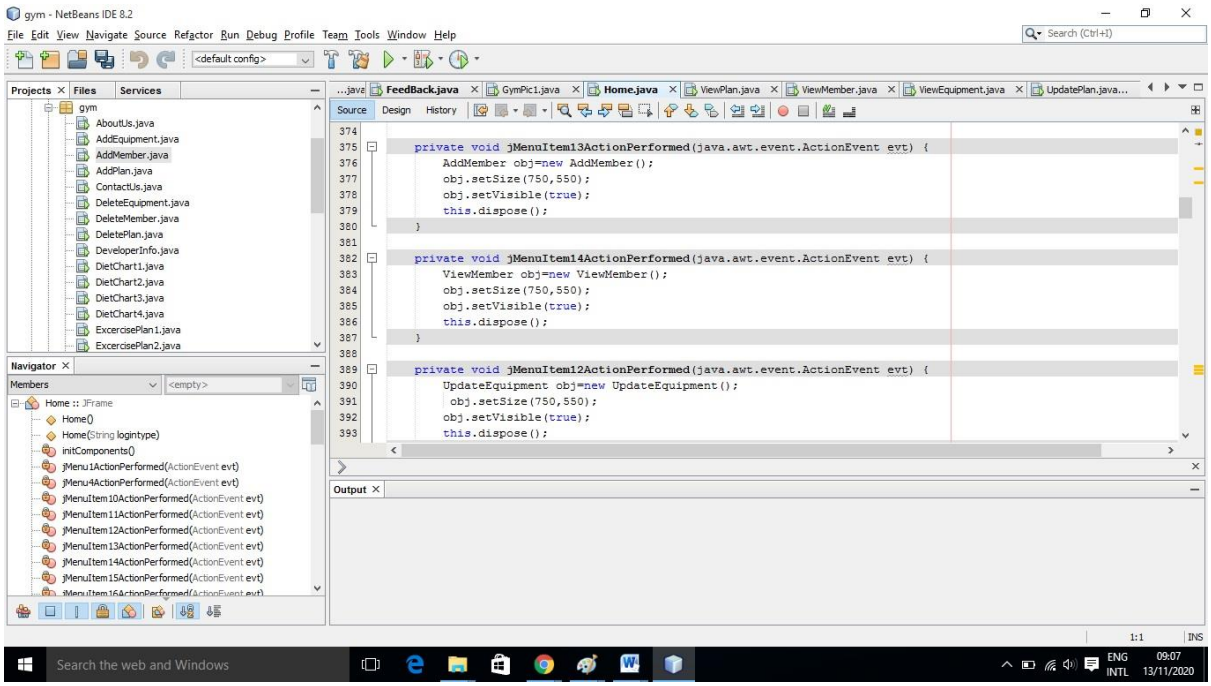
FeedBack :: JFrame
FeedBack()
initComponents()
jButton1ActionPerformed(ActionEvent evt)
jButton2ActionPerformed(ActionEvent evt)
main(String[] args)
buttonGroup1 : ButtonGroup
jButton1 : JButton
jButton2 : JButton
jLabel1 : JLabel
jLabel2 : JLabel
jLabel3 : JLabel
jLabel4 : JLabel
...ave DeleteEquipment.java DeleteMember.java FeedBack.java GymPic1.java Home.java ViewPlan.java ViewMember...
Source Design History
{
Rating="1";
}
if(jRadioButton2.isSelected()==true)
{
Rating="2";
}
if(jRadioButton3.isSelected()==true)
{
Rating="3";
}
if(jRadioButton4.isSelected()==true)
{
Rating="4";
}
if(jRadioButton5.isSelected()==true)
{
Rating="5";
}
String FeedBack = jTextArea1.getText();
Output
1:1 INS
Search the web and Windows
ENG INTL 09:06 13/11/2020




```
package gym;

import java.sql.*;

import javax.swing.JOptionPane;

public class Login extends javax.swing.JFrame {

    /*

     * Creates new form gym

     */

    public Login() {

        initComponents();

    }

    /**

     * This method is called from within the constructor to initialize the form.

     * WARNING: Do NOT modify this code. The content of this method is always

     * regenerated by the Form Editor.

     */

    @SuppressWarnings("unchecked")

    // <editor-fold defaultstate="collapsed" desc="Generated Code">

    private void initComponents() {
```

```
jPanel1 = new javax.swing.JPanel();
jFileChooser1 = new javax.swing.JFileChooser();
jLabel3 = new javax.swing.JLabel();
jLabel1 = new javax.swing.JLabel();
jLabel2 = new javax.swing.JLabel();
jTextField1 = new javax.swing.JTextField();
jPasswordField1 = new javax.swing.JPasswordField();
jButton1 = new javax.swing.JButton();
jButton2 = new javax.swing.JButton();
jLabel5 = new javax.swing.JLabel();
jLabel4 = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
setTitle("Gym Management System");
setBackground(new java.awt.Color(51, 51, 51));
setForeground(new java.awt.Color(51, 51, 51));
setMinimumSize(new java.awt.Dimension(780, 550));
setName("Gym Management System"); // NOI18N
setResizable(false);
getContentPane().setLayout(null);

jPanel1.setLayout(null);
jPanel1.add(jFileChooser1);
jFileChooser1.setBounds(0, 0, 582, 397);

getContentPane().add(jPanel1);
jPanel1.setBounds(10, 88, 0, 0);

jLabel3.setBackground(new java.awt.Color(255, 51, 51));
jLabel3.setFont(new java.awt.Font("Rockwell Extra Bold", 1, 48)); // NOI18N
jLabel3.setForeground(new java.awt.Color(51, 51, 51));
```

```
jLabel3.setText("RADEON GYM");
getContentPane().add(jLabel3);
jLabel3.setBounds(130, 10, 500, 50);

jLabel1.setFont(new java.awt.Font("Arial Black", 1, 18)); // NOI18N
jLabel1.setText("User ID :-");
getContentPane().add(jLabel1);
jLabel1.setBounds(190, 140, 110, 40);

jLabel2.setFont(new java.awt.Font("Arial Black", 1, 18)); // NOI18N
jLabel2.setText("Password :-");
getContentPane().add(jLabel2);
jLabel2.setBounds(170, 210, 140, 24);

jTextField1.setForeground(new java.awt.Color(102, 102, 102));
getContentPane().add(jTextField1);
jTextField1.setBounds(330, 140, 160, 30);

jPasswordField1.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      jPasswordField1ActionPerformed(evt);
   }
});
getContentPane().add(jPasswordField1);
jPasswordField1.setBounds(330, 210, 160, 30);

jButton1.setBackground(new java.awt.Color(102, 102, 102));
jButton1.setFont(new java.awt.Font("Arial Black", 1, 12)); // NOI18N
jButton1.setText("Submit");
jButton1.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```
            jButton1ActionPerformed(evt);
        }
    });
    getContentPane().add(jButton1);
    jButton1.setBounds(320, 260, 90, 31);

    jButton2.setBackground(new java.awt.Color(102, 102, 102));
    jButton2.setFont(new java.awt.Font("Arial Black", 1, 12)); // NOI18N
    jButton2.setText("Exit");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton2ActionPerformed(evt);
        }
    });
    getContentPane().add(jButton2);
    jButton2.setBounds(420, 260, 90, 31);

    jLabel5.setIcon(new javax.swing.ImageIcon(getClass().getResource("/gym/backgimg/gym-spor2-
1.gif"))); // NOI18N
    jLabel5.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(153, 153,
153), 3));
    getContentPane().add(jLabel5);
    jLabel5.setBounds(140, 120, 175, 170)

    jButton2.setBackground(new java.awt.Color(102, 102, 102));
    jButton2.setFont(new java.awt.Font("Arial Black", 1, 12)); // NOI18N
    jButton2.setText("Exit");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton2ActionPerformed(evt);
```

Administrative Module:

Admin have control over all the features of our system. Some are :

Add member


```
   private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {


      try{
         Class.forName("com.mysql.jdbc.Driver");
         Connection con=
DriverManager.getConnection("jdbc:mysql://localhost:3306/radeongym","root","");
         Statement stmt = con.createStatement();
         String MemberId = jTextField1.getText();
         String Name = jTextField2.getText();
         String DOB = jTextField3.getText();
         String Address = jTextField4.getText();
         String Contact = jTextField5.getText();
         String JoiningDate = jTextField6.getText();
         String Timing = jTextField7.getText();
         String Weight = jTextField8.getText();
         String query = "insert into member
values("+MemberId+",'"+Name+"','"+DOB+"','"+Address+"','"+Contact+"','"+JoiningDate+"','"+Timing
+"','"+Weight+"')";
         stmt.execute(query);
```

```
            con.close();
            JOptionPane.showMessageDialog(this,"one record is submit successful");
        }
        catch(Exception e)
        {
            JOptionPane.showMessageDialog(this, e.toString());
        }   }
    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        Home obj = new Home();
        obj.setSize(750,550);
        obj.setVisible(true);
        this.dispose();

    }
    /**
     * @param args the command line arguments
     */
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
         * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
         */
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }           }
```

```
        } catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(AddMember.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);

        } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(AddMember.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);

        } catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(AddMember.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);

        } catch (javax.swing.UnsupportedLookAndFeelException ex) {

        try {

            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {

                if ("Nimbus".equals(info.getName())) {

                    javax.swing.UIManager.setLookAndFeel(info.getClassName
```

ADD NEW GYM EQUIPMENT


```
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">

        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.

         * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html

         */

        try {
```

```
        for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
            if ("Nimbus".equals(info.getName())) {
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break;
            }            }
    } catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(AddMember.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(AddMember.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(AddMember.class.getName()).log(java.util.logging.Level.Sll,
ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(AddMember.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(AddMember.class.getName()).log(java.util.logging.Level.SEVERE,



package gym;


/**
 *
 * @author Ms Ahmed
 */
public class Home extends javax.swing.JFrame {
```

```
/**
 * Creates new form page2
 */
public static String logintype="";
public Home() {
   initComponents();
   if(logintype.equals("user"))
   {
      this.logintype = logintype;
      jMenuItem13.setEnabled(false);
      jMenuItem1.setEnabled(false);
      jMenuItem2.setEnabled(false);
      jMenuItem11.setEnabled(false);
      jMenuItem12.setEnabled(false);
      jMenuItem15.setEnabled(false);

   }      }
public Home(String logintype) {
   initComponents();
   if(logintype.equals("user"))
   {
      this.logintype = logintype;
      jMenuItem13.setEnabled(false);
      jMenuItem1.setEnabled(false);
      jMenuItem2.setEnabled(false);
      jMenuItem11.setEnabled(false);
      jMenuItem12.setEnabled(false);
      jMenuItem15.setEnabled(false);
   }       }
/**
 * This method is called from within the constructor to initialize the form.
```

```
 * WARNING: Do NOT modify this code. The content of this method is always
 * regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {

    jComboBox1 = new javax.swing.JComboBox();
    jLabel5 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jLabel1 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    jLabel6 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
    jMenuBar1 = new javax.swing.JMenuBar();
    jMenu4 = new javax.swing.JMenu();
    jMenuItem13 = new javax.swing.JMenuItem();
    jMenuItem14 = new javax.swing.JMenuItem();
    jMenuItem1 = new javax.swing.JMenuItem();
    jMenuItem2 = new javax.swing.JMenuItem();
    jMenu3 = new javax.swing.JMenu();
    jMenuItem11 = new javax.swing.JMenuItem();
    jMenuItem12 = new javax.swing.JMenuItem();
    jMenuItem15 = new javax.swing.JMenuItem();
    jMenuItem20 = new javax.swing.JMenuItem();
    jMenu5 = new javax.swing.JMenu();
    jMenuItem6 = new javax.swing.JMenuItem();
    jMenuItem7 = new javax.swing.JMenuItem();
    jMenuItem8 = new javax.swing.JMenuItem();
    jMenuItem21 = new javax.swing.JMenuItem();
    jMenu6 = new javax.swing.JMenu();
```

```
        jMenuItem17 = new javax.swing.JMenuItem();
        jMenuItem18 = new javax.swing.JMenuItem();
        jMenuItem19 = new javax.swing.JMenuItem();
        jMenu2 = new javax.swing.JMenu();
        jMenuItem9 = new javax.swing.JMenuItem();
        jMenuItem10 = new javax.swing.JMenuItem();
        jMenuItem16 = new javax.swing.JMenuItem();
        jMenuItem4 = new javax.swing.JMenuItem();
        jMenu1 = new javax.swing.JMenu();
        jMenuItem3 = new javax.swing.JMenuItem();

        jComboBox1.setModel(new javax.swing.DefaultComboBoxModel(new String[] { "Item 1", "Item
2", "Item 3", "Item 4" }));

        jLabel5.setText(" ");
        jLabel5.setMaximumSize(new java.awt.Dimension(750, 550));
        jLabel5.setMinimumSize(new java.awt.Dimension(750, 550));

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("HOME PAGE");
        setBackground(new java.awt.Color(0, 0, 0));
        setMaximumSize(new java.awt.Dimension(780, 550));
        setMinimumSize(new java.awt.Dimension(780, 550));
        setResizable(false);
        getContentPane().setLayout(null);

        jLabel2.setFont(new java.awt.Font("Stencil", 1, 48)); // NOI18N
        jLabel2.setForeground(new java.awt.Color(102, 102, 102));
        jLabel2.setText("Radeon gym");
        getContentPane().add(jLabel2);
        jLabel2.setBounds(190, 10, 380, 80);
```

```
        jLabel1.setFont(new java.awt.Font("Gill Sans MT", 3, 24)); // NOI18N

        jLabel1.setForeground(new java.awt.Color(51, 51, 51));

        jLabel1.setText("<html><body>Radeon Gym brings a fresh approach to gym membership. By avoiding  unnecessary costs (keep everything simple, straight forward and streamlining the approach and doing away with pushy sales staff) and by focusing on what matters: great equipment within a great space – my aim is reduce the costs and delivering  a high quality gym standard with unique experience. It will be  offering a unique experience to members. Where one to one personal training, sports rehabilitation,  Classes and group sessions are just a few of the exciting services, which would be helpful to  achieve the required goals.  </body></html>");

        getContentPane().add(jLabel1);

        jLabel1.setBounds(40, 30, 560, 410);

        getContentPane().add(jLabel3);

        jLabel3.setBounds(0, 0, 0, 0);


        jLabel6.setIcon(new javax.swing.ImageIcon(getClass().getResource("/gym/backgimg/dfgh.gif"))); // NOI18N

        jLabel6.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(102, 102, 102), 4));

        getContentPane().add(jLabel6);

        jLabel6.setBounds(600, 100, 170, 190);


        jLabel4.setIcon(new javax.swing.ImageIcon(getClass().getResource("/gym/backgimg/home.jpg"))); // NOI18N

        getContentPane().add(jLabel4);

        jLabel4.setBounds(0, -30, 780, 530);


        jMenuBar1.setBackground(new java.awt.Color(102, 102, 102));

        jMenuBar1.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(0, 0, 0), 4));

        jMenuBar1.setBorderPainted(false);


        jMenu4.setBackground(new java.awt.Color(102, 102, 102));

        jMenu4.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(0, 0, 0)));
```

```
        jMenu4.setText("Member");
        jMenu4.setBorderPainted(true);
        jMenu4.setFont(new java.awt.Font("Arial Black", 3, 14)); // NOI18N
        jMenu4.setIconTextGap(20);
        jMenu4.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jMenu4ActionPerformed(evt);
            }
        });

jMenuItem13.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_A,
java.awt.event.InputEvent.CTRL_MASK));
        jMenuItem13.setFont(new java.awt.Font("Arial Black", 3, 12)); // NOI18N
        jMenuItem13.setText("Add member");
        jMenuItem13.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jMenuItem13ActionPerformed(evt);
            }
        });
        jMenu4.add(jMenuItem13);

jMenuItem14.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_L,
java.awt.event.InputEvent.CTRL_MASK));
        jMenuItem14.setFont(new java.awt.Font("Arial Black", 3, 12)); // NOI18N
        jMenuItem14.setText("View Members");
        jMenuItem14.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jMenuItem14ActionPerformed(evt);
            }
        });
```

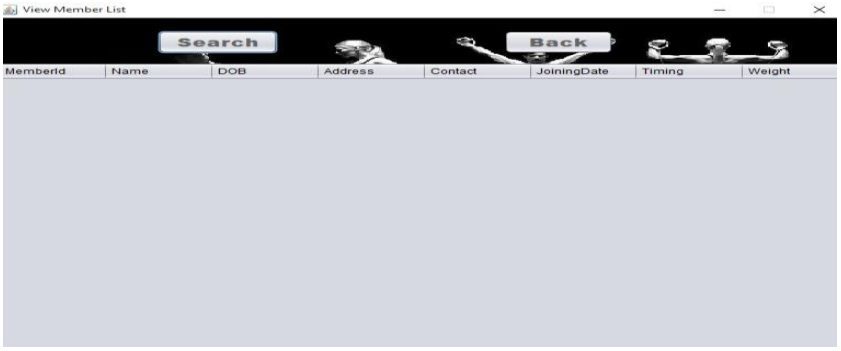
```
jMenu4.add(jMenuItem14);


jMenuItem1.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_U,
java.awt.event.InputEvent.CTRL_MASK));
jMenuItem1.setFont(new java.awt.Font("Arial Black", 3, 12)); // NOI18N
jMenuItem1.setText("Update member");
jMenuItem1.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      jMenuItem1ActionPerformed(evt);
   }
});
jMenu4.add(jMenuItem1);


jMenuItem2.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_D,
java.awt.event.InputEvent.CTRL_MASK));
jMenuItem2.setFont(new java.awt.Font("Arial Black", 3, 12)); // NOI18N
jMenuItem2.setText("delete member");
jMenuItem2.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      jMenuItem2ActionPerformed(evt);
   }
});
jMenu4.add(jMenuItem2);


jMenuBar1.add(jMenu4);
```

view member :

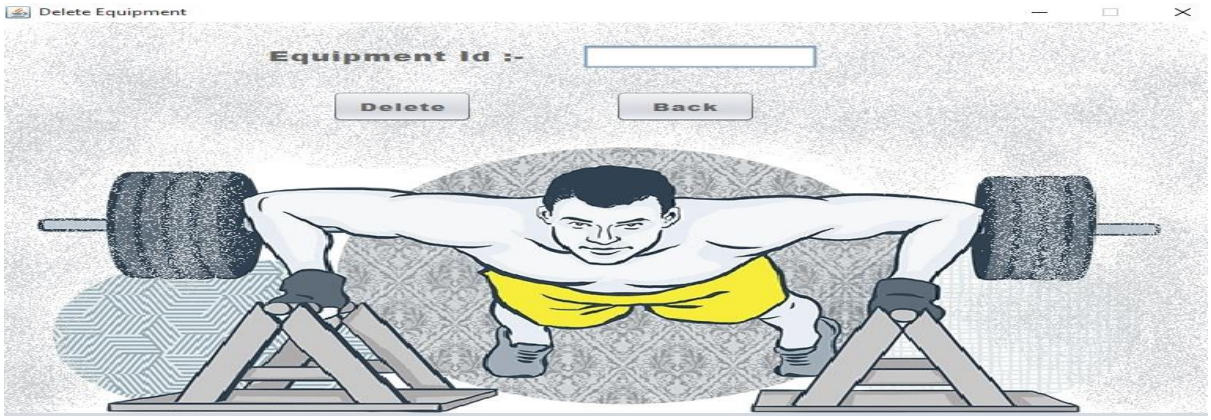



```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
      try{
         DefaultTableModel dtm = (DefaultTableModel)jTable1.getModel();
         Class.forName("com.mysql.jdbc.Driver");
         Connection con=
DriverManager.getConnection("jdbc:mysql://localhost:3306/radeongym","root","");
         Statement stmt = con.createStatement();
         ResultSet rs = stmt.executeQuery("select * from member");
         while(rs.next())
         {
           String a = rs.getString("MemberId");
         String b = rs.getString("Name");
         String c = rs.getString("DOB");
         String d = rs.getString("Address");
         String e = rs.getString("Contact");
         String f = rs.getString("JoiningDate");
         String g = rs.getString("Timing");
         String h = rs.getString("Weight");
         Object data[]={a,b,c,d,e,f,g,h};
         dtm.addRow(data);
         }

      con.close();
    * @param args the command line arguments
    */
```

```
public static void main(String args[]) {
    /* Set the Nimbus look and feel */
// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JLabel jLabel1;
private javax.swing.JScrollPane jScrollPane1;
```

Delete equipment:




```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    Home obj = new Home();
    obj.setSize(750,550
  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
Class.forName("com.mysql.jdbc.Driver");
        Connection con=
DriverManager.getConnection("jdbc:mysql://localhost:3306/radeongym","root","")  Statement stmt
= con.createStatement();
        String EquipmentId = jTextField1.getText();
        String query = "delete from equipment where EquipmentId="+EquipmentId;
        stmt.execute(query);  JOptionPane.showMessageDialog(this, e.toString());
```

❖ Update equipment:


```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        try{
           String EquipmentId = jTextField1.getText();
           Class.forName("com.mysql.jdbc.Driver");
            Connection con=
DriverManager.getConnection("jdbc:mysql://localhost:3306/radeongym","root","");
            Statement stmt = con.createStatement();
            String query = "select * from equipment where EquipmentId="+EquipmentId;
            ResultSet rs = stmt.executeQuery(query);
            if(rs.next())
            {
            jTextField1.setText(rs.getString("EquipmentId"));
            jTextField2.setText(rs.getString("EquipmentName"));
            jTextField3.setText(rs.getString("DateOfPurchase"));
            jTextArea1.setText(rs.getString("PurchaseDetail"));
            jTextField4.setText(rs.getString("Price"));
            jComboBox1.setSelectedItem(rs.getString("category"));
            }
            con.close();
       } catch(Exception e)
        {
           JOptionPane.showMessageDialog(this, e.toString());
        }      }
    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
try{
   String EquipmentId = jTextField1.getText();
   String EquipmentName = jTextField2.getText();
   String DateOfPurchase = jTextField3.getText();
   String PurchaseDetail = jTextArea1.getText();
   String Price = jTextField4.getText();
   String Category = jComboBox1.getSelectedItem().toString();
   Class.forName("com.mysql.jdbc.Driver");
   Connection con=
DriverManager.getConnection("jdbc:mysql://localhost:3306/radeongym","root","");
     Statement stmt = con.createStatement();
   String query = "update equipment set
EquipmentName='"+EquipmentName+"',DateOfPurchase='"+DateOfPurchase+"',PurchaseDetail='"+
PurchaseDetail+"',Price='"+Price+"',Category='"+Category+"' where
EquipmentId='"+EquipmentId+"'";
   stmt.execute(query);
        JOptionPane.showMessageDialog(this,"one record is updated successful"
```

Add plan:


```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
   Home obj = new Home();
   obj.setSize(750,550);
   obj.setVisible(true);
   this.dispose();
}
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
   try{
      Class.forName("com.mysql.jdbc.Driver");
```

```
        Connection con=
DriverManager.getConnection("jdbc:mysql://localhost:3306/radeongym","root","");
        Statement stmt = con.createStatement();
        String MemberId = jTextField1.getText();
        String DietInformation = jTextArea1.getText();
        String ExcerciseInformation = jTextArea2.getText();

        String query = "insert into plan
values("+MemberId+",'"+DietInformation+"','"+ExcerciseInformation+"')";
        stmt.execute(query);
        con.close();
    * @param args the command line arguments
    */
   public static void main(String args[]) {
      /* Set the Nimbus look and feel */
      //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
      /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
       * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
       */
      try {
         for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
               if ("Nimbus".equals(info.getName())) {
                   javax.swing.UIManager.setLookAndFeel(info.getClassName());
               break;
           }               }
      } catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(AddPlan.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);
      } catch (InstantiationException ex) {
```

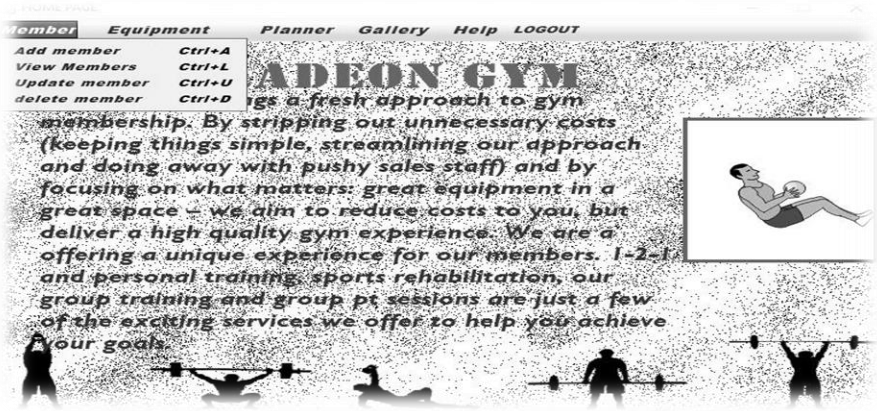
java.util.logging.Logger.getLogger(AddPlan.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(AddPlan.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

❖ Developer Information



❖ Evaluation (Critical)

I feels and thinks that I have created so many target for myself where I have set the certain standard and working to achieve. At the time of choosing topic, I didn't pay much attention and I though it would be very easy to plan and work. After working and reading on the requirements, I realized it's not easy to choose and work, especially where we have to use stake to use two languages. Like I mentioned earlier that I was not very much focus and not aware of the importance of this project at the beginning but moving towards to the right directions slowly and gradually which has giving me a sense of achieving my goals at set time.

This software package allows storing the details of all the data related to gym user and staff. The system is strong enough to be a voice of its own and generate the power of operations under conditions where they will find maintained database. It will be helpful to reduce time, cost, data entry, generating report, these all factors will be considerable for the implementation of the system in the organization.

In nut shell, this project was to build a program for maintaining the details of all the members, employees and inventory .The system developed is able to meet all the basic requirements. The management of the records (both members and employees)will be also benefited by the proposed system, as it will automate the whole procedure, which will reduce the workload.

There is always a room for improvement in any software, however efficient the system may be. The system should be adoptable and can be modify as per the future requirements and changes. The different modules has been factored into system to make a better system in case any further adaptation and changes are required. Any hard work and effort has been created to understand the user needs and requirements to make it more user friendly. .

The project has been developed within a very short time and I have put all of my efforts to get the right outcome and produce a very efficient project. I do admit that in the execution of it there was still exists some scope of improvement in my project. I will say that the application of this project can be create more attractively. I believe that the Database management and all other module should be updated which the helps of the administrator. More security measures can be taken. There are also few features which can be integrated with this system to make it more flexible. Video conversation option for trainers and members. Online payment through face recognition.

Barcode generation for membership card and using this, members can take entry to Gym
Finger print matching for taking entry to gym.

If I would have more time then my working would be far better than that but I will still praise and admit my working after having all hurdle. It was a constant learning process from creating idea, gathering information, thinking, studies, critical thinking, facts and features and mainly the right usage of tech stack. I will develop more project on my own to enhance my skills and to improve my abilities, where any task in the future will not be problematic for me. Indeed I learned various aspects and technique towards to achieving the better outcome within a certain time scale. I must admit that my confidence has boost a lot and I will definitely work towards to constant achievement.

❖ Poster

https://github.com/Shaz447/Shazia-CW1.git

❖ Appendices

Problem definition (3-5 lines)

In today's world, gyms are less structured considering the technical advancements. GYM members are less aware of their daily routine/work out time/diet programmes. To help members stay updated with all the recent information such as addition of new equipment's.

Project description and objectives (2-3 paragraphs)

As we know, in this modern world, how important it is to maintain good health when it comes to strengthening immunity. This application is considerably helpful for fitness freaks which will provide them with their personal daily data inclusive of diet plans, workout regime, or use of gym equipment's. The Application would allow gym members to choose various plans of membership which in return will help them monitor track of their fitness.

Objective – The main purpose of this application is to make people aware of all the facilities gym 's can provide. It gives them freedom to opt for a plan required during various phases. The application creates a unique ID called as Member ID which stores all the information of the respective member. MySQL is used to store data in the database wherein Netbeans 8.0 is used to develop the application. Gym members can now have the exact information for their past and future gym regimes.

Special features of Gym Management system:-

1. **Gym Members are required a login Id and password after registration.**
2. **Members can go through the updated diet and exercise plans every day.**
3. **All the updating and deletion can only be done by admin side.**
4. **Due to the better GUI changes can be done easily.**
5. **Members or users can check and pay the fees and check outstanding balance.**
6. **Members are not allowed to make changes and any updating in application.**
7. **Members can suggest the Admin to make some specific changes as the feedback.**
8. **This app helps to reduce the complexity and helps to stop deforestation by saving tons of papers which are still used by many organisations.**

Required HW/SW

Technology used –Java SE(standard edition) Net beans 8.0

Structured query Language(SQ)L server for database

❖ Reference

- *www.wikipedia.com*
- *www.tutorialspoint.com*
- *https://www.apachefriends.org/download.html*
- *www.w3schools.com*
- *http://www.slideshare.net/jagaarj/database-design-normalization*
- *www.oracle.com*
- *www.slideshare.com*
- *https://www.w3schools.in/java*
- *https://en.wikipedia.org/wiki/Java_(programming_language*
- *https://www.childline.org.uk/info-advice/you-your-body/my-body/staying-healthy/*
- *https://www.itgovernance.eu/blog/en/the-gdpr-what-exactly-is-personal-data*