Visual programming-Swing Homework

My Project-FitManager

Name:Baran
Surname:Açıkkapu

Number:B2210.033087

-Description

FitManager is a desktop application designed to manage gym member information using the Java Swing library. IT allows gym administrators to register new members, view the list of existing members, and delete member records.

-**Key Parts**

Member Registration: Add new gym members with details such as ID, name, surname, gender, height, weight, and BMI.

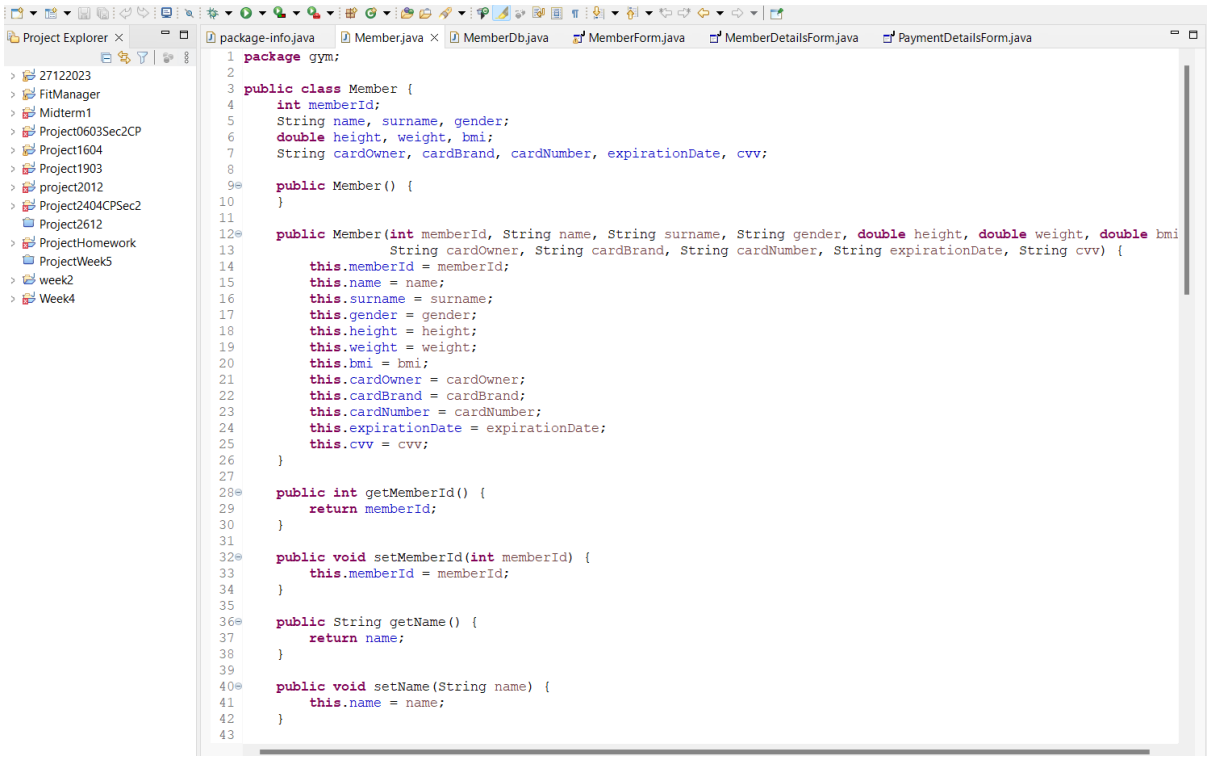
Member List: View the list of all registered members in a JTable.

Data Base: Connects to a MySQL database to store and retrieve member data.

Coding

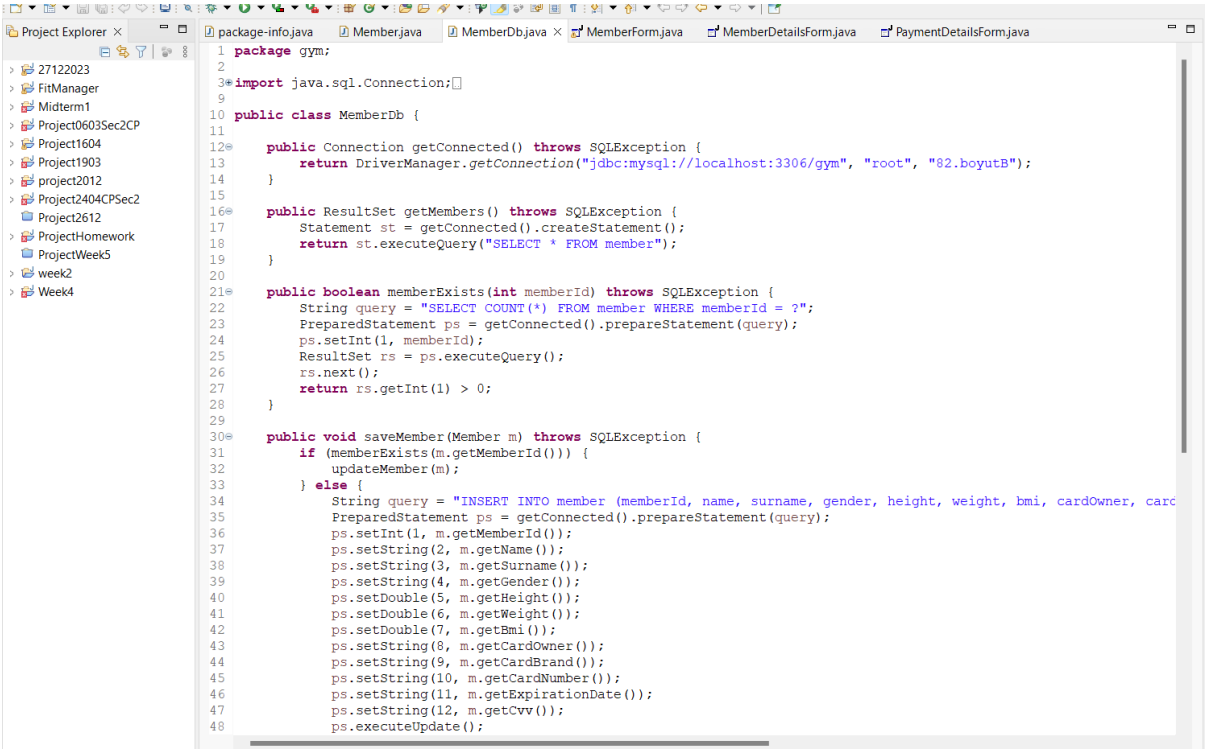
I created 5 things a Member class,MemberDb for database,Memberform for Jframe another Jframe named MemberDetails and jframe named PaymentDetailsForm.

MemberClass



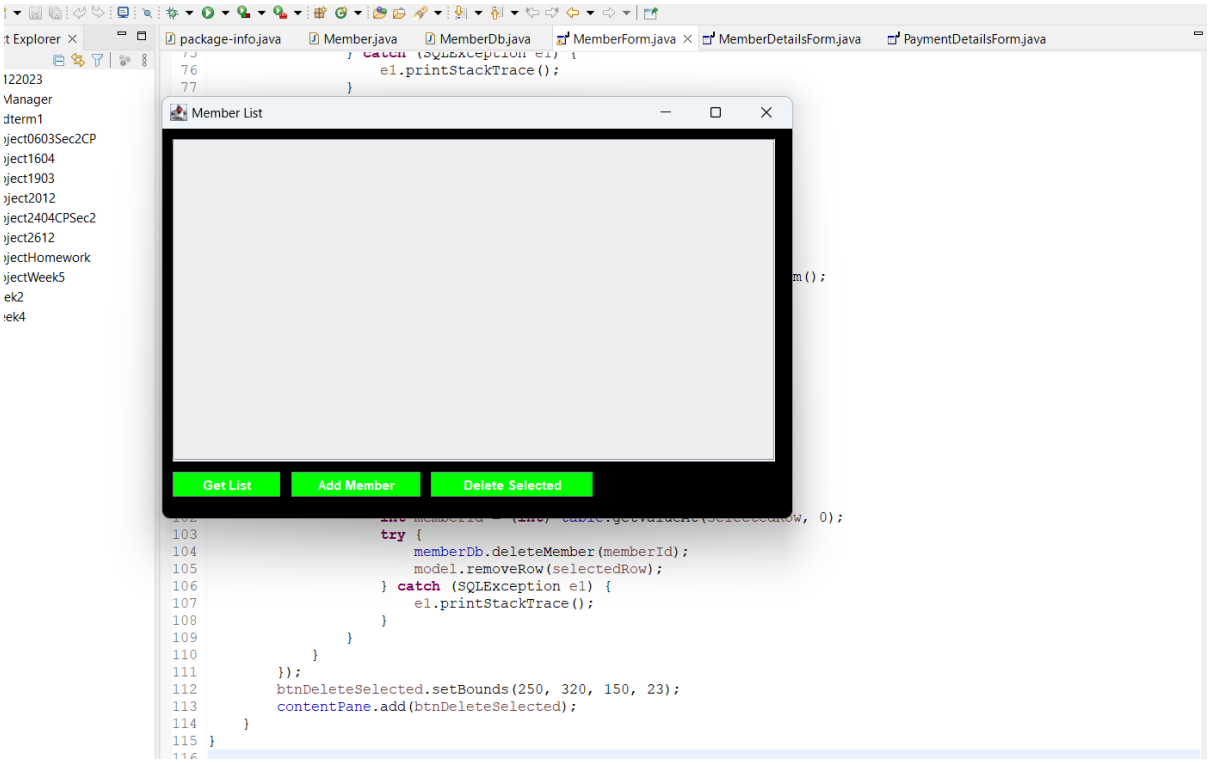
The Member class represents a gym member with attributes like ID, name, surname, gender, height, weight, and BMI.

MemberDB class for database connection



The MemberDb class handles database operations, including connecting to the database, saving new member records, retrieving all members, and deleting members by ID. And also connection for the database via mysql connector.

MemberForm JFrame



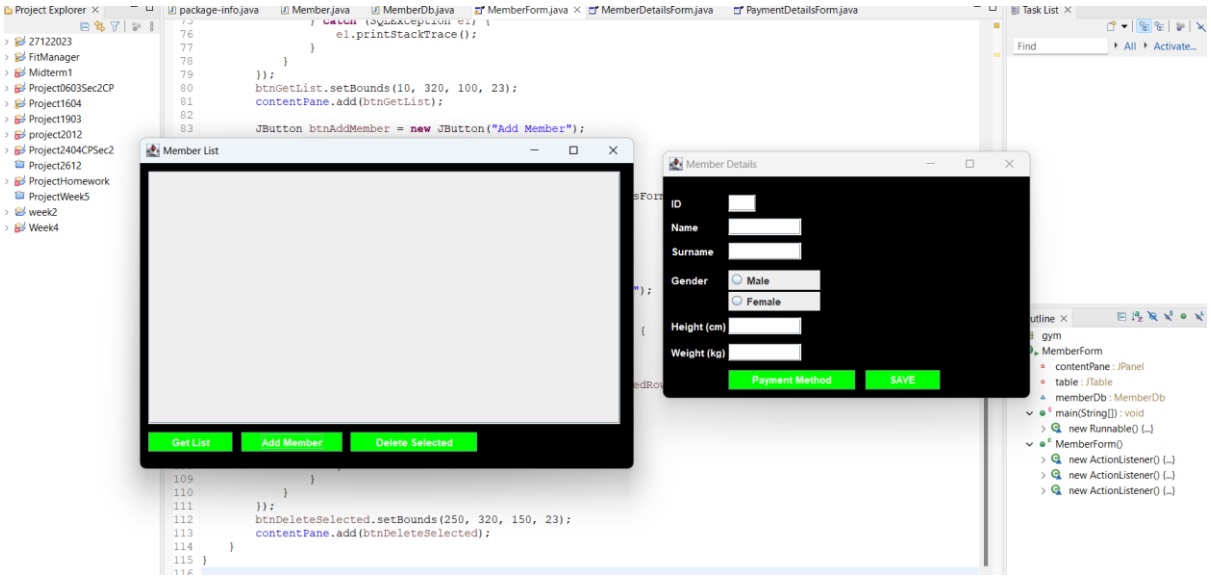
Here is the swing desing for jframe its empty but i will show the in the end of the report with a example. Its main window of the application. It contains a JTable to display the list of members and buttons to add new members, retrieve the member list, and delete selected members. When the "Add Member" button is clicked, it opens the MemberDetailsForm window for member registration.

Logic for Using Components:

JTable: Displays the list of members fetched from the database.

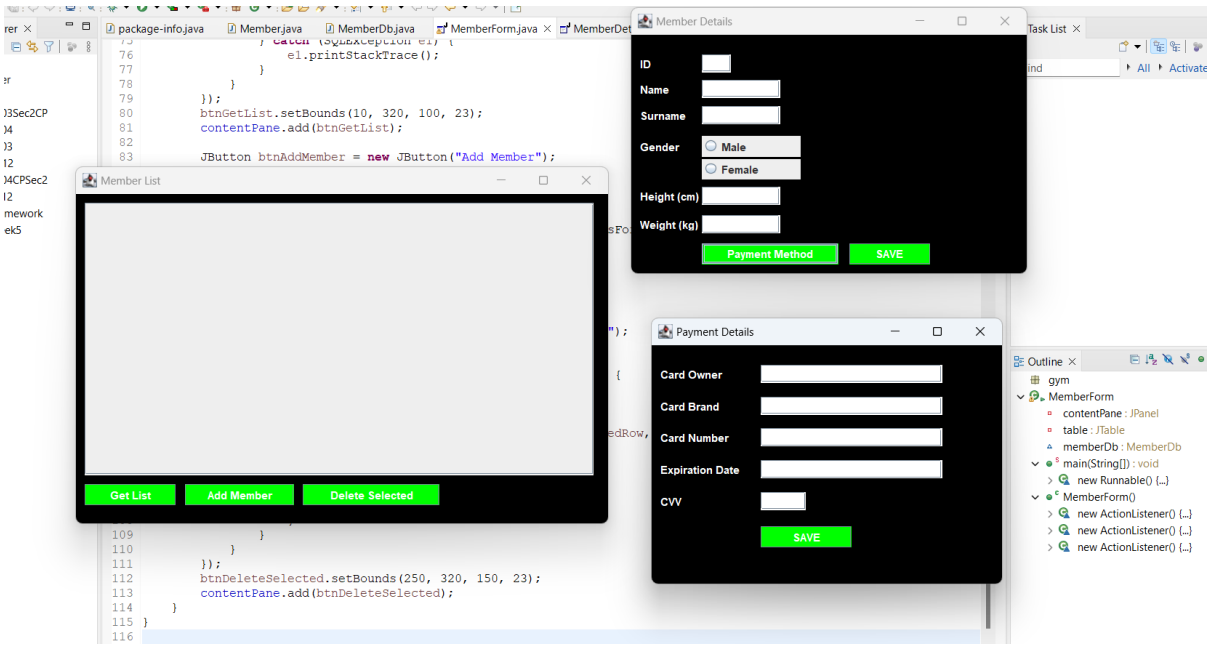
JButton: "Get List" button retrieves and displays members in the JTable, "Add Member" button opens the registration window, "Delete Selected" button deletes the selected member from the database.

MemberDetailsForm JFrame



Here is the 2 window swing example of my project. As you can see with memberdetails form you can enter the details and save it. This secondary window for adding or editing member details. It includes text fields for ID, name, surname, height, and weight, radio buttons for gender, and a save button to store the new member data in the database.

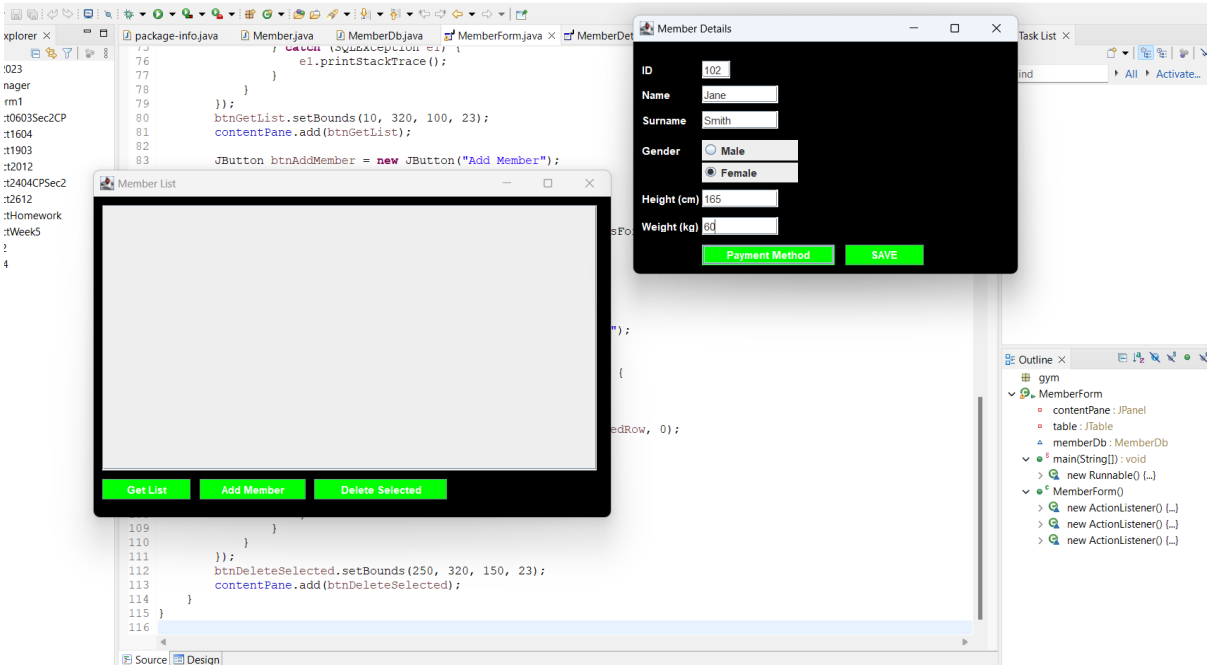
PaymentDetails JFrame



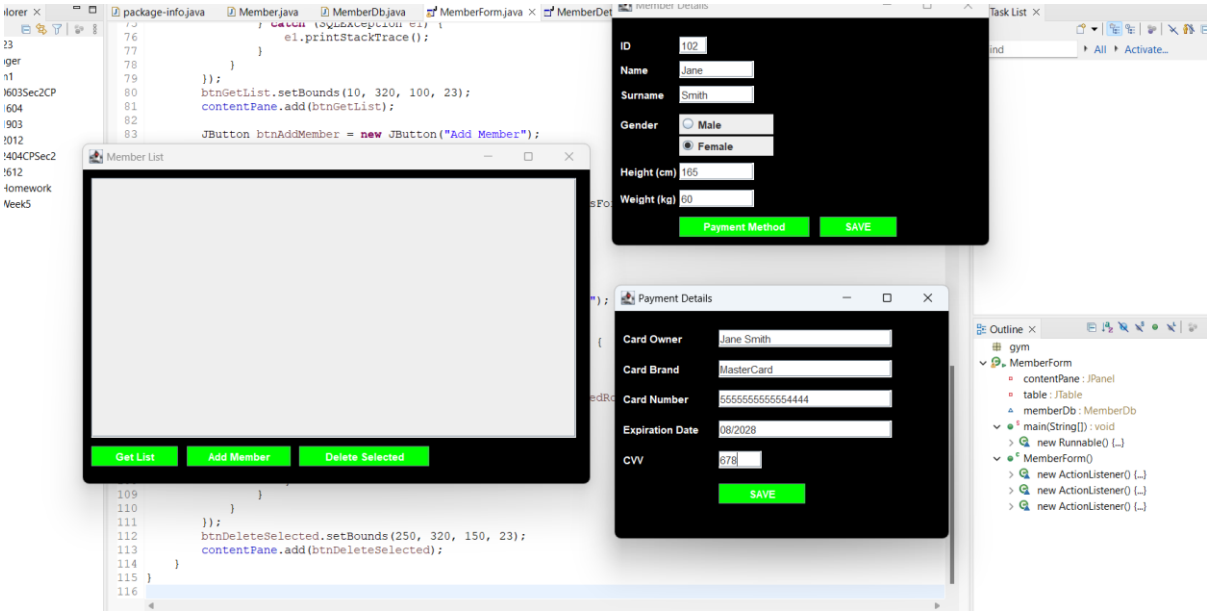
Here is the 3 window swing example of my project. As you can see with paymentdetails form you can enter payment details and save it. You should enter member details then click payment methods enter members payment details and save it. Then you should save member details form. Components are JTextField for entering card owner, card brand, card number, expiration date, and CVV ,JButton for saving payment details.

The Logic of paymentdetails is When the user clicks the "SAVE" button, the payment details are temporarily stored and associated with the member being edited in MemberDetailsForm. The window then closes, returning control to MemberDetailsForm.

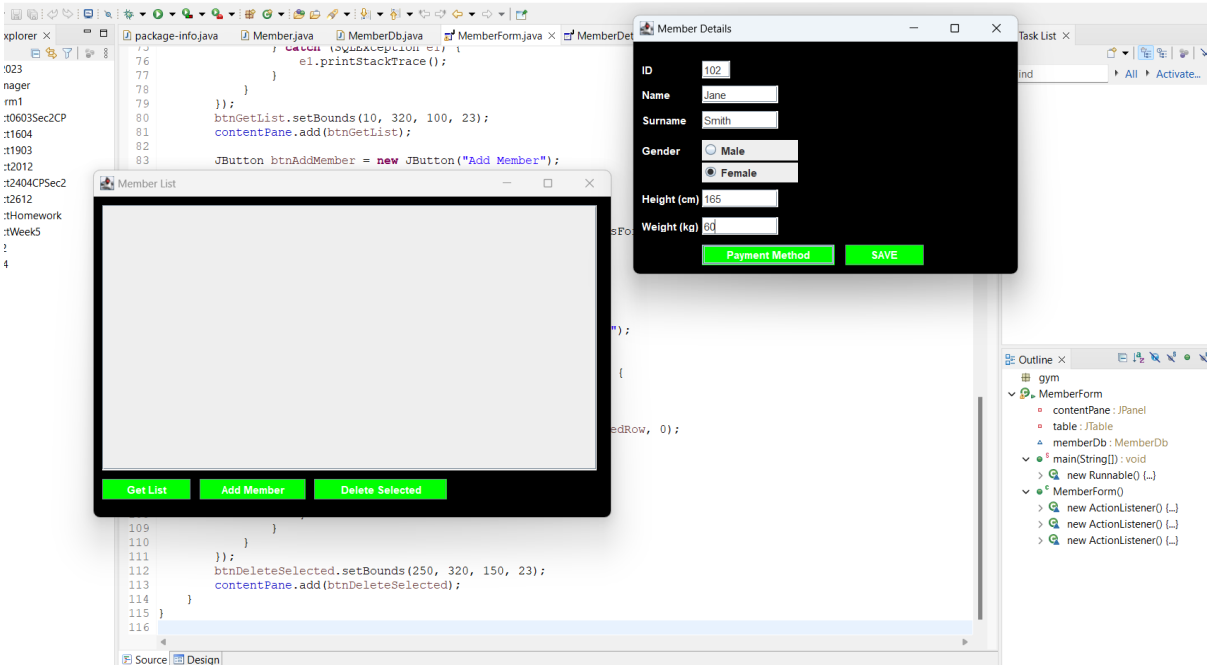
A CASE EXAMPLE



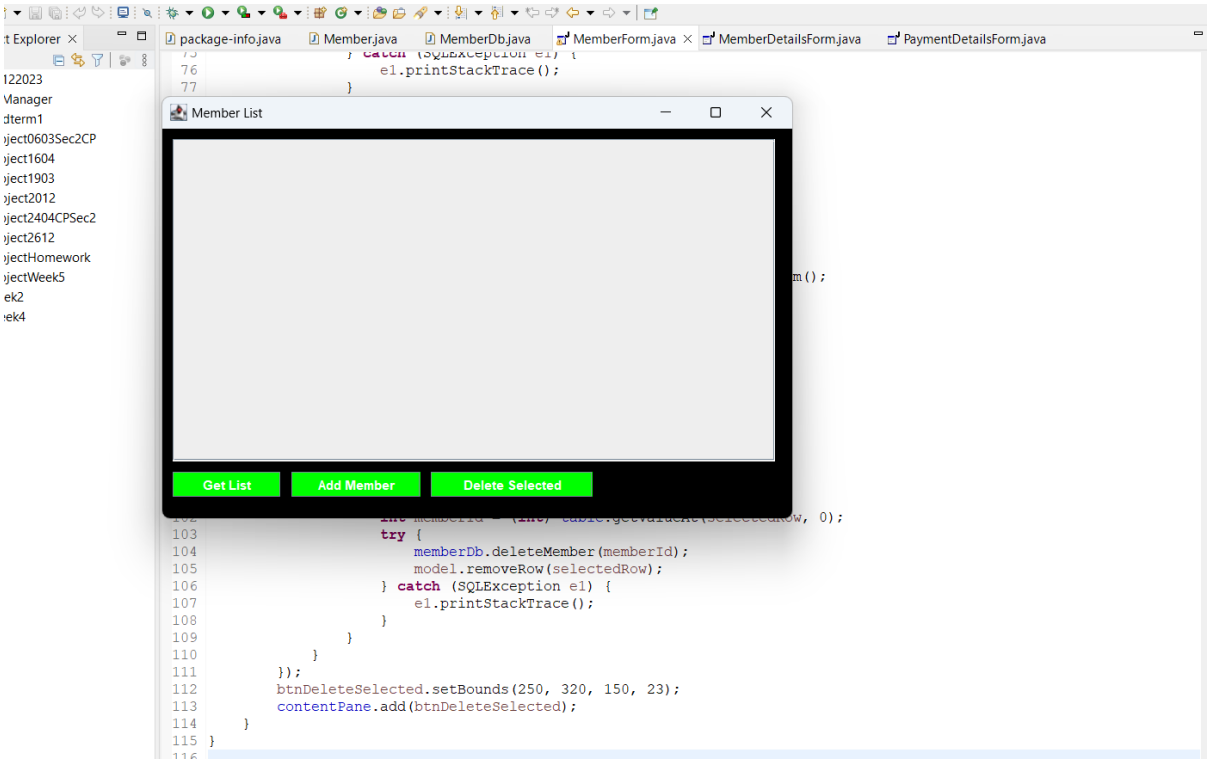
First we enter the details of our member. And click PAYMENT METHOD button. DONT CLICK SAVE BUTTON RIGHT NOW.



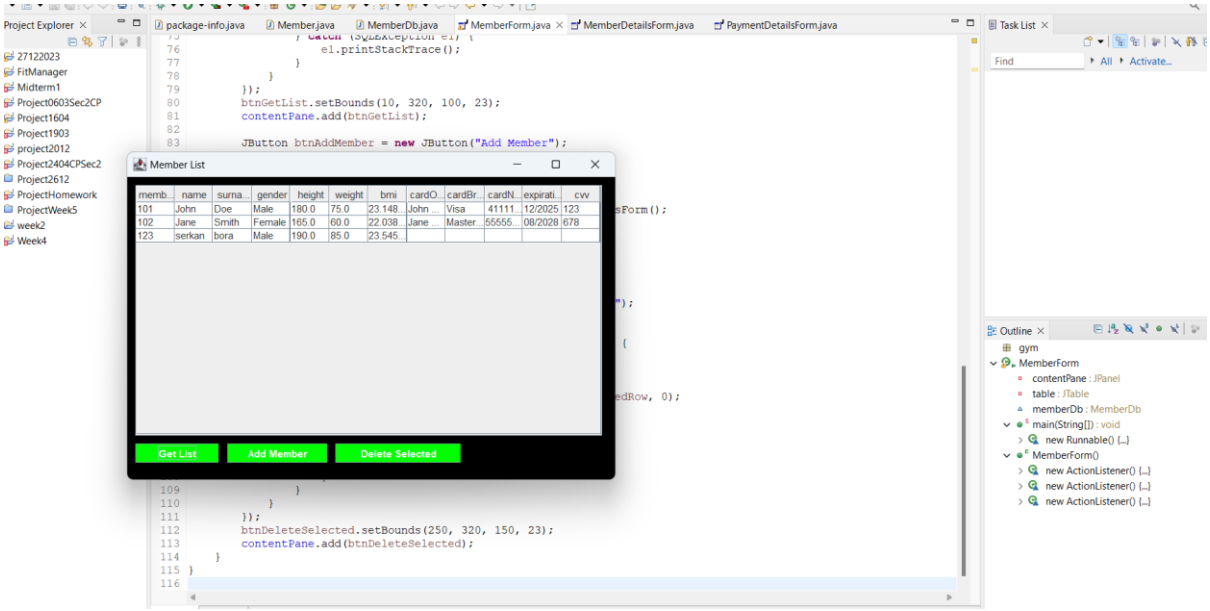
We enter payment details of the member AND click SAVE button in the payment details window and its close the window.



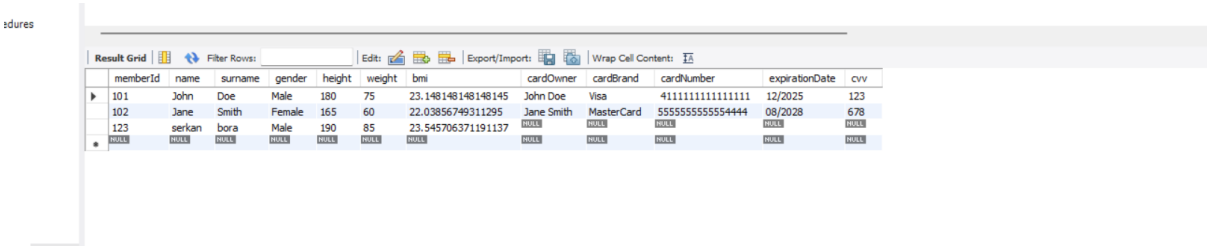
After payment details window closed we click save button in the member details button.



Then we click get list button in the member list window.



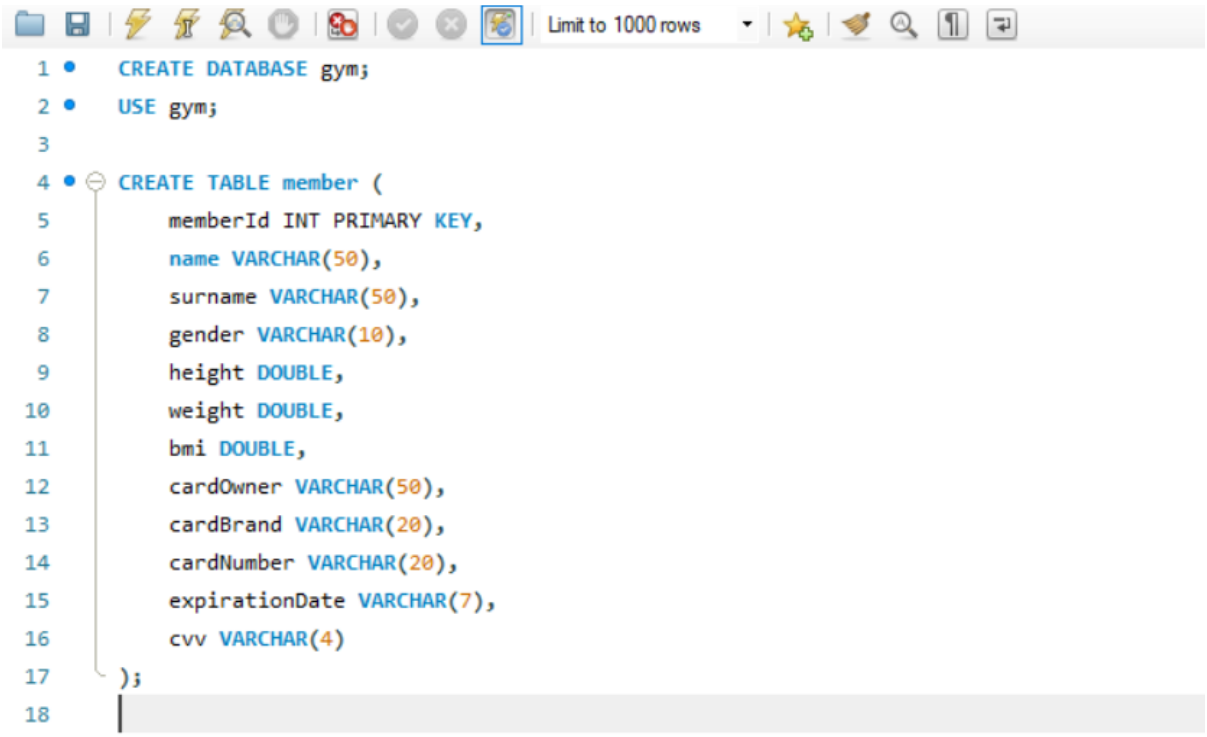
As you can see our FitManager Project works great ! Its have databaseconnection, Jtable,3 windows for jframes.



memberId	name	surname	gender	height	weight	bmi	cardOwner	cardBrand	cardNumber	expirationDate	cvv
101	John	Doe	Male	180	75	23.148148148145	John Doe	Visa	4111111111111111	12/2025	123
102	Jane	Smith	Female	165	60	22.03856749311295	Jane Smith	MasterCard	5555555555554444	08/2028	678
123	serkan	bora	Male	190	85	23.545706371191137	NULL	NULL	NULL	NULL	NULL

Database also working great !

SQL DETAILS



References for my homework

[1] https://www.codejava.net/java-se/swing/a-simple-jtable-example-for-display

[2] https://www.geeksforgeeks.org/java-swing-jtable/?ref=ml_lbp