

Menu Driven JDBC Student Management System

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project Structure:** Task1.java, Main.java, README.md, DBConnection.java, PropertyLoader.java, Main_Menu.java (selected), Query.java, database.properties, Task2.java.
- Code Editor:** The Main_Menu.java file contains a switch statement for menu options 1 through 4, each calling a method in the Query class (insert, update, delete, select). The code is annotated with Mahesh Nikas' name.
- Run Output:** The terminal window shows the execution of the program. It starts with the command "C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=59952" -Dfile.encoding=UTF-8 -Dsun.stdout.encoding=UTF-8 -Dsun.stderr.encoding=UTF-8 -jar C:\Users\mahes\OneDrive\Desktop\Task\src\Main_Menu.jar". The output then displays the menu options and a successful insertion operation.
- Bottom Status Bar:** Shows the current time as 9:52, file encoding as CRLF, and code style as 4 spaces.

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```
public class Main_Menu { 
    public static void main(String[] args){ 
        case 1: 
            Query.insert(); 
            break; 
        case 2: 
            Query.update(); 
            break; 
        case 3: 
            Query.delete(); 
            break; 
        case 4: 
            Query.select(); 
    } 
}
```

```
1 rows deleted
.... MENU .....
Name : Mahesh Nikas, Branch : IT
Choose option 1: insert in students , 2: update in students , 3:Delete Students , 4: select students , 5: exit
4
Connection Succesful
    2 Mayur_Ughade    Python   22
    3 Akash_Warkhede .Net     22
    4 Anand_Nagapure Java_Script 22
    5 Saurav_Ugalkar Kotlin   22
    6 Pawan_Rathod    Physics  22
.... MENU .....
Name : Mahesh Nikas, Branch : IT
Choose option 1: insert in students , 2: update in students , 3:Delete Students , 4: select students , 5: exit
```

Task > src > Menu_Driven > Main_Menu > main 9:52 CRLF UTF-8 4 spaces

```
Commit Alt+O
public class Main_Menu { 
    public static void main(String[] args){ 
        case 1: 
            Query.insert(); 
            break; 
        case 2: 
            Query.update(); 
            break; 
        case 3: 
            Query.delete(); 
            break; 
        case 4: 
            Query.select(); 
    } 
}
```

```
Enter the Course for update
AI
1 rows update
.... MENU .....
Name : Mahesh Nikas, Branch : IT
Choose option 1: insert in students , 2: update in students , 3:Delete Students , 4: select students , 5: exit
3
Connection Succesful
Enter Student_Id for delete
1
1 rows deleted
.... MENU .....
Name : Mahesh Nikas, Branch : IT
Choose option 1: insert in students , 2: update in students , 3:Delete Students , 4: select students , 5: exit
```

Task > src > Menu_Driven > Main_Menu > main 9:52 CRLF UTF-8 4 spaces

Menu Driven JDBC Student Management System

Project Overview

- Type: Console-based Java application
- Technology: Java, JDBC, SQL
- Purpose: Perform CRUD operations on students table

Main Features

- Insert student record
- Update student details
- Delete student record
- Display all students

Program Structure

- Main_Menu.java – Displays menu and handles user choice
- Query.java – Contains insert, update, delete, select methods
- DBConnection.java – Establishes database connection
- database.properties – Stores database configuration

Database Table Used

- Table Name: students
- Columns: student_id, name, course, age
- Primary Key: student_id

JDBC Components Used

- Connection – To connect Java with database
- PreparedStatement – To execute SQL queries safely
- ResultSet – To retrieve data from database

Execution Flow

- User selects an option from menu
- Selected operation method is called
- SQL query is executed using JDBC
- Result is displayed to the user
- Menu is shown again

Outcome

- Data is inserted, updated, deleted, or displayed successfully
- Program runs until user chooses exit option