

- Explanation of the Code

1. Package declaration

```
package Task2;
```

- Places the class inside the Task2 package.

2. Import statement

```
import java.sql.*;
```

- Imports JDBC interfaces and classes required for database access.

3. Class definition

```
public class Select_query {
```

- Declares the class Select_query.

4. Main method

```
public static void main(String[] args) {
```

- Entry point of the Java program.

5. Load Oracle JDBC driver

```
Class.forName("oracle.jdbc.OracleDriver");
```

- Loads the Oracle JDBC driver class so JDBC can use it.

6. Database connection details

```
String url = "jdbc:oracle:thin:@localhost:1521:XE";
```

```
String user = "system";
```

```
String pass = "12345";
```

- Specifies the database URL, username, and password.

7. SQL query

```
String selectqry = "select * from student";
```

- SQL statement to fetch all records from the student table.

8. Create database connection

```
Connection con = DriverManager.getConnection(url, user, pass);
```

- Establishes a connection to the Oracle database.

9. Prepare the SQL statement

```
PreparedStatement ps = con.prepareStatement(selectqry);
```

- Creates a PreparedStatement for the SQL query.

10. Execute the query

```
ResultSet rs = ps.executeQuery();
```

- Executes the SELECT query.

- Stores the returned rows in a ResultSet.

11.Read data from ResultSet

```
while (rs.next()) {
```

- Moves the cursor to the next row until no rows remain.

```
int id = rs.getInt("id");
```

```
String name = rs.getString("name");
```

```
int age = rs.getInt("age");
```

```
String email = rs.getString("email");
```

```
String mobile = rs.getString("mobile");
```

- Retrieves column values from the current row using column names.

12.Print output

```
System.out.println(id + " | " + name + " | " + age + " | " + email + " | " + mobile);
```

- Displays the retrieved student data.

13.Close JDBC resources

```
con.close();
```

- Closes the Connection.

14.Exception handling

```
catch (ClassNotFoundException e) {
```

```
    e.printStackTrace();
```

```
}
```

- Handles the case where the JDBC driver class is not found.

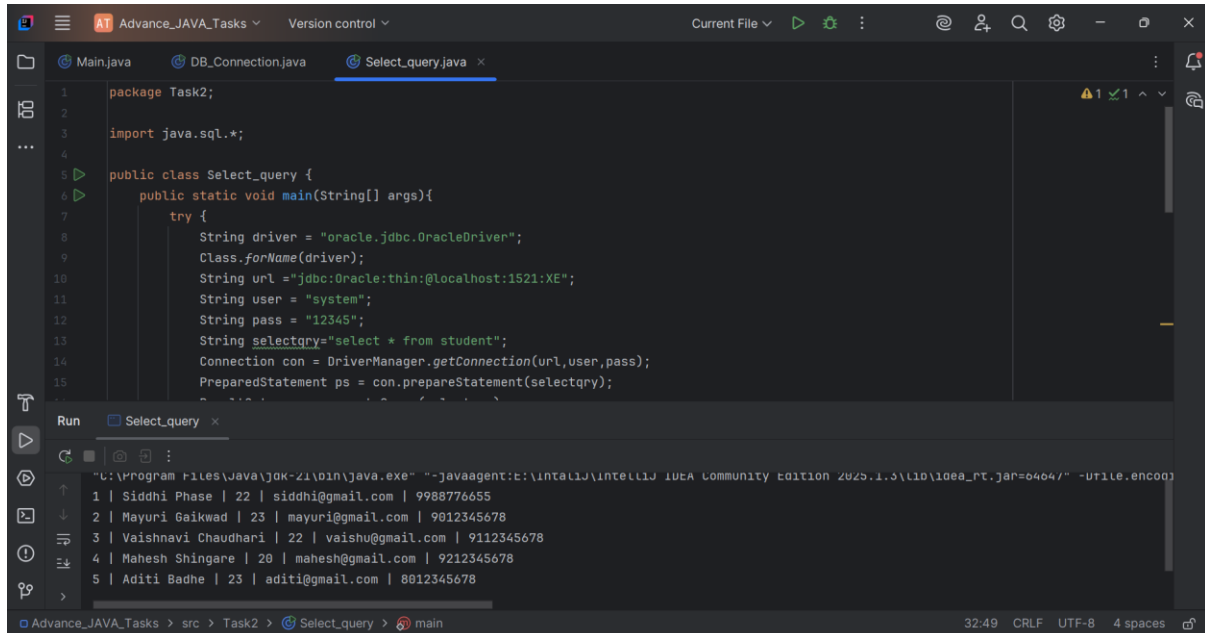
```
catch (SQLException e) {
```

```
    e.printStackTrace();
```

```
}
```

15. Handles SQL-related errors.

Screenshot of Output:



The screenshot shows an IDE window with the file `Select_query.java` open. The code defines a `Task2` package and a `Select_query` class with a `main` method. The `main` method connects to an Oracle database and executes a query to select all records from a table named `student`. The output of the program is displayed in the Run console, showing five rows of student data.

```
package Task2;

import java.sql.*;

public class Select_query {
    public static void main(String[] args){
        try {
            String driver = "oracle.jdbc.OracleDriver";
            Class.forName(driver);
            String url = "jdbc:Oracle:thin:@localhost:1521:XE";
            String user = "system";
            String pass = "12345";
            String selectqry="select * from student";
            Connection con = DriverManager.getConnection(url,user,pass);
            PreparedStatement ps = con.prepareStatement(selectqry);
            ResultSet rs = ps.executeQuery();
            while(rs.next()){
                System.out.println(rs.getString(1)+" | "+rs.getString(2)+" | "+rs.getString(3)+" | "+rs.getString(4));
            }
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

Run console output:

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\IntelliJ\IntelliJ IDEA Community Edition 2025.1.3\lib\idea_rt.jar=6464/" -Dfile.encoding=UTF-8
1 | Siddhi Phase | 22 | siddhi@gmail.com | 9988776655
2 | Mayuri Gaikwad | 23 | mayuri@gmail.com | 9012345678
3 | Vaishnavi Chaudhari | 22 | vaishu@gmail.com | 9112345678
4 | Mahesh Shingare | 20 | mahesh@gmail.com | 9212345678
5 | Aditi Badhe | 23 | aditi@gmail.com | 8012345678
```