

Task_2 – Explaination

1. Purpose of the program

This program is used to **fetch student records from the database and display them on the console.**

It reads data from the **Students_Info** table.

2. Database connection

- The program first **connects to the database** using a separate database connection class.
 - If the connection is successful, the program can communicate with the database and run queries.
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3. SQL query execution

- A query is sent to the database to **retrieve all rows and columns** from the Students_Info table.
 - The database processes this request and returns the result.
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4. Receiving data from the database

- The returned data is stored in a **result set**, which works like a table of rows.
 - Each row represents **one student record**.
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5. Reading data row by row

- The program goes through the result set **one record at a time**.
- For each student, it reads:
 - Student ID

- Name
 - Age
 - Gender
 - Email
 - Mobile number
 - Class / Standard
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6. Displaying the student details

- After reading all details of a student, the program **prints them in a single line.**
 - This process repeats until **all student records are displayed.**
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7. Error handling

- If any problem occurs (like database not connected, table not found, or wrong column name),
the program **shows the error details** to help identify the issue.
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8. Program completion

- Once all records are printed, the program finishes execution.
- No changes are made to the database — it is **read-only**.

The screenshot shows the IntelliJ IDEA interface with a Java project named "Java_taks-2". The "Student_list.java" file is open in the editor, containing the following code:

```
import java.sql.ResultSet;
public class Student_list {
    public static void main(String[] args) {
        Connection con ;
        String query = " select * from Students_Info";
```

The "Run" tab is selected, showing the output of the run:

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\intelij\IntelliJ IDEA Community Edition 2025.1.3\lib\idea_rt.jar=61358" -Dfile.encoding=UTF-8 Student_list
1 Rahul Sharma 20 Male rahul@gmail.com 9876543210 1 class
2 Ganesh Wagh 16 Male ganesh@gmail.com 2233445566 10 class
3 Rajesh Gange 16 Male rajesh@gmail.com 2343759886 10 class
4 Riya Gupta 16 Female riya@gmail.com 6579301237 10 class
5 Nanda Ghughe 16 Female nanda@gmail.com 1234567890 10 class

Process finished with exit code 0
```

The status bar at the bottom right indicates the time is 8:55 and the encoding is UTF-8.