

## CGPACalculator

CODING:

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import java.util.Scanner;

public class CGPACalculator2 {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        String url = "jdbc:mysql://localhost:3306/student_db"; // Update this to your DB URL
        String username = "root";
        String password = "3146";

        try (Connection connection = DriverManager.getConnection(url, username, password)) {
            System.out.println("Connected to the database.");

            System.out.println("Enter the student's name:");
            String studentName = scanner.nextLine();

            System.out.println("Enter the number of subjects:");
            int numSubjects = scanner.nextInt();
            scanner.nextLine();

            double totalGradePoints = 0;
            double totalCredits = 0;
```

```
String sql = "INSERT INTO student_grades (student_name, subject_name, subject_marks, credits)
VALUES (?, ?, ?, ?)";
```

```
PreparedStatement statement = connection.prepareStatement(sql);
```

```
for (int i = 1; i <= numSubjects; i++) {
```

```
System.out.println("Enter subject name for subject " + i + ":");
```

```
String subjectName = scanner.nextLine();
```

```
System.out.println("Enter marks (out of 100) for " + subjectName + ":");
```

```
double subjectMarks = scanner.nextDouble();
```

```
System.out.println("Enter credits for " + subjectName + ":");
```

```
double credits = scanner.nextDouble();
```

```
scanner.nextLine();
```

```
double grade = subjectMarks / 10;
```

```
totalGradePoints += grade * credits;
```

```
totalCredits += credits;
```

```
statement.setString(1, studentName);
```

```
statement.setString(2, subjectName);
```

```
statement.setDouble(3, subjectMarks);
```

```
statement.setInt(4, (int) credits);
```

```
statement.executeUpdate();
```

```
}
```

```
double cgpa = totalGradePoints / totalCredits;
```

```
System.out.printf("Your CGPA is: %.2f\n", cgpa);
```

```
String updateCGPA = "UPDATE student_grades SET cgpa = ? WHERE student_name = ?";
```

```
PreparedStatement updateStatement = connection.prepareStatement(updateCGPA);
```

```

        updateStatement.setDouble(1, cgpa);

        updateStatement.setString(2, studentName);

        updateStatement.executeUpdate();

    } catch (SQLException e) {

        System.out.println("Error connecting to the database: " + e.getMessage());

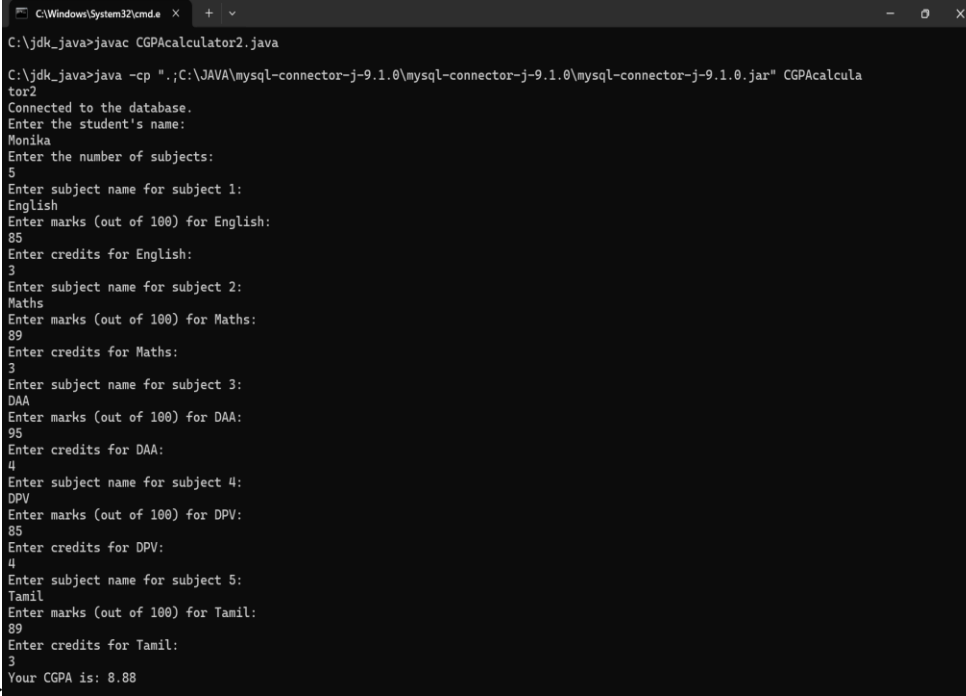
    } finally {

        scanner.close();

    }

}

```



```

C:\Windows\System32\cmd.exe
C:\jdk_java>javac CGPAcalculator2.java
C:\jdk_java>java -cp ".;C:\JAVA\mysql-connector-j-9.1.0\mysql-connector-j-9.1.0\mysql-connector-j-9.1.0.jar" CGPAcalculator2
Connected to the database.
Enter the student's name:
Monika
Enter the number of subjects:
5
Enter subject name for subject 1:
English
Enter marks (out of 100) for English:
85
Enter credits for English:
3
Enter subject name for subject 2:
Maths
Enter marks (out of 100) for Maths:
89
Enter credits for Maths:
3
Enter subject name for subject 3:
DAA
Enter marks (out of 100) for DAA:
95
Enter credits for DAA:
4
Enter subject name for subject 4:
DPV
Enter marks (out of 100) for DPV:
85
Enter credits for DPV:
4
Enter subject name for subject 5:
Tamil
Enter marks (out of 100) for Tamil:
89
Enter credits for Tamil:
3
Your CGPA is: 8.88

```