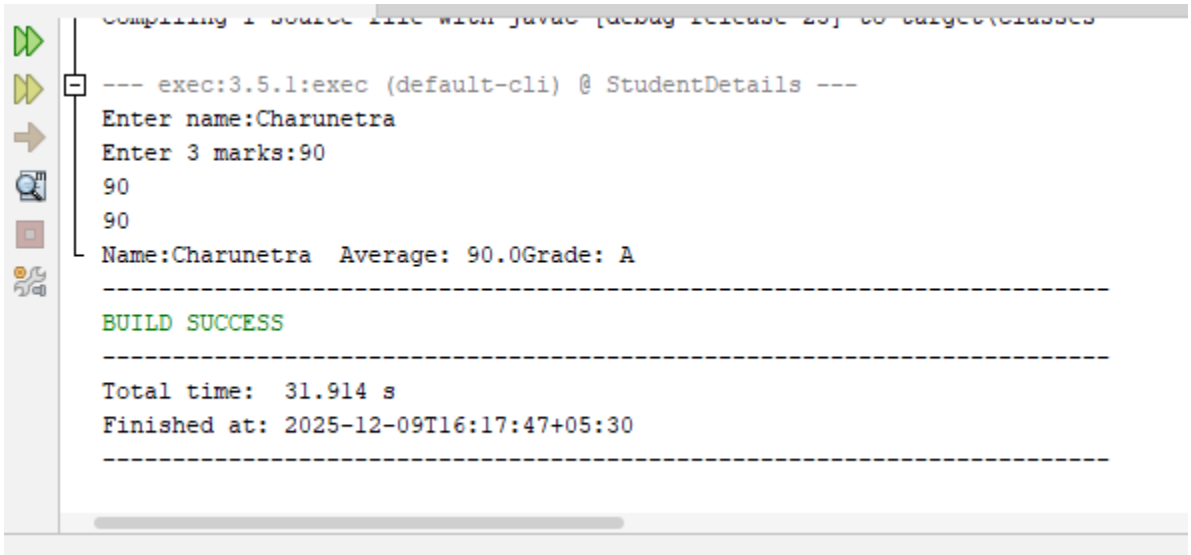
Tab 1

```
import java.util.Scanner;
class Student {
    String name;
    int mark1, mark2, mark3;
void displayDetails() {
double average = (mark1 + mark2 + mark3) / 3.0;
char grade = average>= 90?'A' : average >= 80?'B' : average >= 70?'C': average >=60?'D':'F';
System.out.println("Name:"+ name + " Average: " + average + "Grade: "+ grade);
}
}
public class StudentDetails {
   public static void main(String[] args) {
     Scanner scanner = new Scanner(System.in);
     Student student = new Student();
     System.out.print("Enter name:");
     student.name = scanner.nextLine();
     System.out.print("Enter 3 marks:");
     student.mark1 = scanner.nextInt();
     student.mark2 = scanner.nextInt();
     student.mark3 = scanner.nextInt();
     student.displayDetails();
     scanner.close();
}
}
```



Tab 2

```
import java.util.Scanner;
public class Main {
  public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);
    System.out.print("Enter the first string:");
    String str1 = scanner.nextLine();
    System.out.print("Enter the second string:");
    String str2 = scanner.nextLine();
    System.out.println("\nChoose a string operation:");
    System.out.println("1. Find Length");
    System.out.println("2. Convert to Uppercase");
    System.out.println("3. Convert to Lowercase");
    System.out.println("4. Concatenate Strings");
    System.out.println("5. Check if Substring Exists");
    System.out.println("6. Check if String is Empty");
    System.out.println("7. Exit");
    while(true) {
      System.out.print("\nEnter your choice:");
      int choice = scanner.nextInt();
      scanner.nextLine();
      switch (choice) {
        case 1:
          System.out.println("1. Length of first string:" + str1.length());
          System.out.println("1. Length of second string:" + str2.length());
          break;
        case 2:
          System.out.println("2. First string in uppercase:" + str1.toUpperCase());
          System.out.println("2. Second string in uppercase:" + str2.toUpperCase());
          break;
        case 3:
          System.out.println("3. First string in lowercase:" + str1.toLowerCase());
          System.out.println("3. Second string in lowercase:" + str2.toLowerCase());
          break;
        case 4:
          System.out.println("4. Concatenated string:" + str1.concat(str2));
          break;
        case 5:
          System.out.print("5. Enter a substring to check in the first string:");
          String substring = scanner.nextLine();

          if (str1.contains(substring)) {
          System.out.println("5. Substring exists in the first string.");
          } else {
          System.out.println("5. Substring does not exist in the first string.");
```

```
        }
        break;
      case 6:
        System.out.println("6. Is the first string empty?"+ str1.isEmpty());
        System.out.println("6. Is the second string empty?"+ str2.isEmpty());
        break;
      case 7:
        System.out.println("7. Exiting the program !");
        break;
      default:
        System.out.println("Invalid choice. Please try again.");
        return;
    }
   }
  }
}
```