

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();
    }
}
```

```
Compiling 1 source file with javac [debug release 25] to target/classes
--- exec:3.5.1:exec (default-cli) @ StudentDetails ---
Enter name:Charunetra
Enter 3 marks:90
90
90
Name:Charunetra  Average: 90.0Grade: A
-----
BUILD SUCCESS
-----
Total time: 31.914 s
Finished at: 2025-12-09T16:17:47+05:30
-----
```

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;
}
}
}
}
```

```
Output - Run (Main) x
 1. Print Bengali
 2. Convert to Uppercase
 3. Convert to Lowercase
 4. Concatenate Strings
 5. Check if Substring Exists
 6. Check if String is Empty
 7. Exit

Enter your choice:4
4. Concatenated string:Charunetra

Enter your choice:7
7. Exiting the program !

Enter your choice:
```