Week 02 : Programming Assignment 2

Due on 2025-02-06, 23:59 IST

Write a program that demonstrates constructor overloading. Create a class `Student` with two constructors:

1. A constructor that accepts `name` and `age`
2. A constructor that accepts all three attributes: `name`, `age`, and `grade`.

Print the student's information using a method `displayInfo()`.

Input:

- `name` (String)
- `age` (int)
- `grade` (String, optional)

Output:
The program should output:

```
Name: <name>
Age: <age>
Grade: <grade>
```

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	Rohit 27	Name: Rohit\n Age: 27	Name: Rohit\n Age: 27\n	Passed

The due date for submitting this assignment has passed.
1 out of 1 tests passed.
You scored 100.0/100.

Assignment submitted on 2025-02-03, 19:07 IST

Your last recorded submission was :

```java
import java.util.*;
public class Student {
    String name;
    int age;
    String grade;

    public Student(String name, int age) {
        this.name = name;
        this.age = age;
    }

    public Student(String name, int age, String grade) {
        this.name = name;
        this.age = age;
        this.grade = grade;
    }

    public void displayInfo() {
        System.out.println("Name: " + name);
        System.out.println("Age: " + age);
        if(!grade.isEmpty()||grade!=null) System.out.print("Grade: " + grade);
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        String name = sc.nextLine();
        int age = sc.nextInt();
        String grade= null;

        // Check if grade is provided or not
        if(sc.hasNextLine())
        {
         sc.nextLine();
         grade =  sc.nextLine();
         }

        // Create the student object
        Student student;
// Write the appropriate constructor call code in the given spaces
if (grade == null ||grade.isEmpty()) {
    student = new Student(name, age);  // Add your code to call the constructor when grade is not given in input
} else {
    student = new Student(name, age, grade);  // Add your code to call the constructor when grade is given in input
}

// code to call displayInfo function to display the information
student.displayInfo();  // Call the displayInfo method to display the student's information


sc.close();
    }
}
```

Sample solutions (Provided by instructor)

```java
import java.util.*;
public class Student {
    String name;
    int age;
    String grade;

    public Student(String name, int age) {
        this.name = name;
        this.age = age;
    }

    public Student(String name, int age, String grade) {
        this.name = name;
        this.age = age;
        this.grade = grade;
    }

    public void displayInfo() {
        System.out.println("Name: " + name);
        System.out.println("Age: " + age);
        if(!grade.isEmpty()||grade!=null) System.out.print("Grade: " + grade);
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        String name = sc.nextLine();
        int age = sc.nextInt();
        String grade= null;

        // Check if grade is provided or not
        if(sc.hasNextLine())
        {
         sc.nextLine();
         grade =  sc.nextLine();
         }

        // Create the student object
        Student student;
if (grade == null ||grade.isEmpty()) {
            student = new Student(name, age);
        } else {
            student = new Student(name, age, grade);
        }

        student.displayInfo();
sc.close();
    }
}
```