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Batch 31

OOP

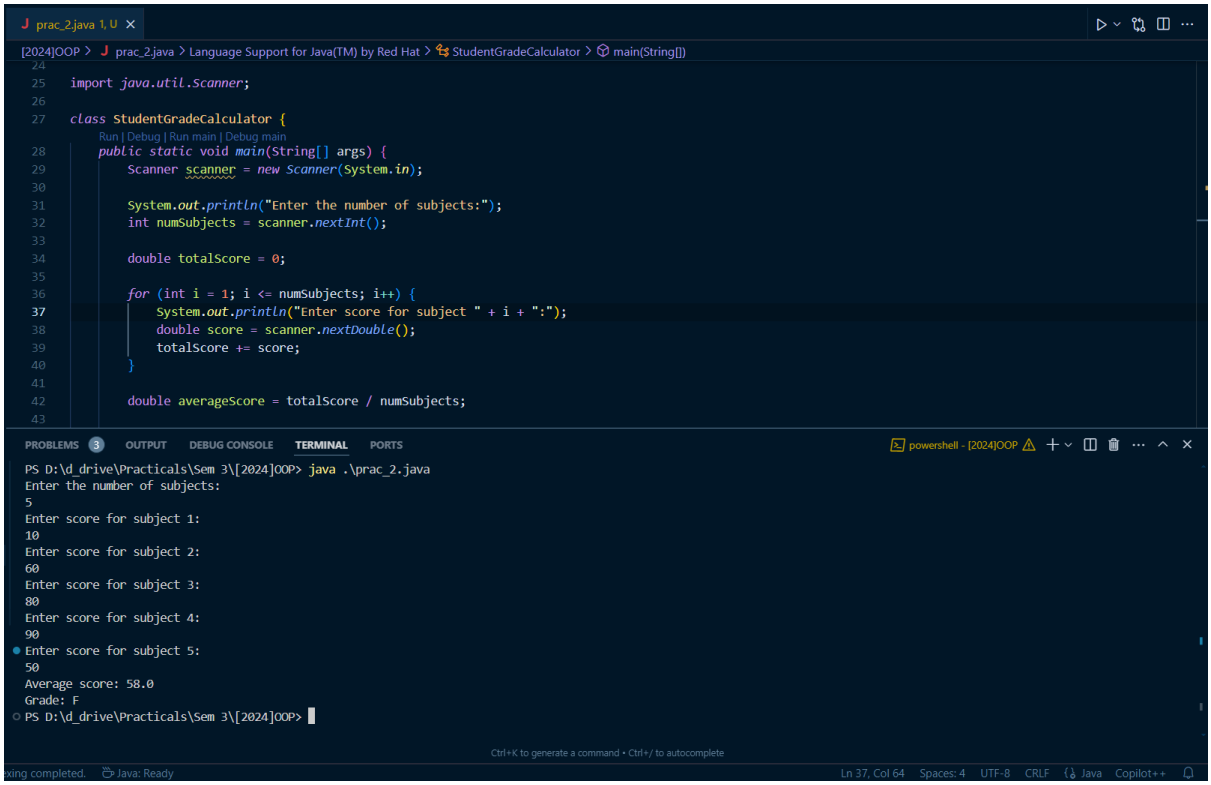
Practical 2

Q – 1 Typecasting and operators

- : Convert an amount from one currency to another using given exchange rates.
- : double for currency amounts, String for currency codes.
- : Arithmetic operators for conversion calculations.

Code:

```
import java.util.*;
class CurrencyConverter {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        double amount;
        System.out.println("Enter the amount in INR: ");
        amount = sc.nextDouble();
        double exchangeRateUSD = 82;
        double exchangeRateEUR = 120;
        double usdAmount = amount / exchangeRateUSD;
        double eurAmount = amount / exchangeRateEUR;
        System.out.println("The amount in INR is: " + amount);
        System.out.println("The amount in USD is: " + usdAmount);
        System.out.println("The amount in EUR is: " + eurAmount);
    }
}
```



Q – 2

- : Calculate the average grade of a student based on their scores in different subjects.
- : int or double for scores, char for grade letter.
- : Arithmetic operators for calculating the average and conditional operators to assign grades.

Code:

```
import java.util.Scanner;

class StudentGradeCalculator {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter the number of subjects:");

        int numSubjects = scanner.nextInt();

        double totalScore = 0;

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

            System.out.print("Enter score for subject " + i + ":");

            double score = scanner.nextDouble();

            totalScore += score;

        }
```

```
        double averageScore = totalScore / numSubjects;
        char grade;
        if (averageScore >= 90) {
            grade = 'A';
        } else if (averageScore >= 80) {
            grade = 'B';
        } else if (averageScore >= 70) {
            grade = 'C';
        } else if (averageScore >= 60) {
            grade = 'D';
        } else {
            grade = 'F';
        }
        System.out.println("Average score: " + averageScore);
        System.out.println("Grade: " + grade);
        scanner.close();
    }
}
```