

Assignment: 4 IT-24024

Subayen Ahmed (1)

```
import java.util.Scanner;  
public class StudentGPA {  
    public static void main(String[] args) {  
        Scanner sc = new Scanner(System.in);  
        System.out.print("Enter student ID: ");  
        String studentID = sc.nextLine();  
        System.out.print("Enter number of courses: ");  
        int numCourses = sc.nextInt();  
        double totalCredit = 0;  
        double earnedCredit = 0;  
        double weightGDP = 0;  
        for (int i = 1; i <= numCourses; i++) {  
            System.out.print("Course " + i + ": ");  
            System.out.print("Credit (max 3): ");  
            double credit = sc.nextDouble();  
            if (credit > 0 & credit <= 3) {  
                totalCredit += credit;  
                if (credit == 3) {  
                    weightGDP += 3;  
                } else if (credit == 2) {  
                    weightGDP += 2;  
                } else if (credit == 1) {  
                    weightGDP += 1;  
                }  
            } else {  
                System.out.println("Credit must be between 0 and 3");  
            }  
        }  
        double gpa = (double) earnedCredit / totalCredit;  
        System.out.println("GPA: " + gpa);  
    }  
}
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System.out.print("CT(out of 30): ");
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double ct = sc.nextDouble();
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System.out.print("AT(out of 10): ");
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double at = sc.nextDouble();
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System.out.print("FE(out of 60): ");
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double fe = sc.nextDouble();
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double totalMarks = ct + at + fe;
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double gp = 0.0;
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if (totalMarks >= 80) gp = 4.0;
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else if (totalMarks >= 75) gp = 3.75;
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else if (totalMarks >= 70) gp = 3.5;
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else if (totalMarks >= 65) gp = 3.25;
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else if (totalMarks >= 60) gp = 3.0;
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else if (totalMarks >= 55) gp = 2.75;
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else if (totalMarks >= 50) gp = 2.5;
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else if (totalMarks >= 45) gp = 2.25;
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else if (totalMarks >= 40) gp = 2.0;
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```

else gpa = 0.0;
totalCredit += credit;
if (gpa > 0) earnedCredit += credit;
weightGpa += (gpa * credit);
}
double cgpa = weightedGpa / totalCredit;

```

String grade:

```

if (cgpa >= 4.00) grade = "A+";
else if (cgpa > 3.75) grade = "A";
else if (cgpa > 3.5) grade = "A-";
else if (cgpa > 3.25) grade = "B+";
else if (cgpa > 3.00) grade = "B";
else if (cgpa > 2.75) grade = "B-";
else if (cgpa > 2.5) grade = "C+";
else if (cgpa > 2.25) grade = "C";
else if (cgpa > 2.00) grade = "D+";
else if (cgpa > 1.75) grade = "D";
else if (cgpa > 1.5) grade = "D-";
else if (cgpa > 1.25) grade = "F";
else if (cgpa > 1.00) grade = "P";
else if (cgpa > 0.75) grade = "NP";
else if (cgpa > 0.50) grade = "F";
else if (cgpa > 0.25) grade = "P";
else if (cgpa > 0.00) grade = "NP";

```

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else grade = "F";  
System.out.println("----");  
System.out.println("student ID: " + studentID);  
System.out.println("Credit Taken: " + totalCredit);  
System.out.println("Credit Earned: " + earnedCredit);  
System.out.println("CGPA: %.2f", cgpa);  
System.out.println("CGPA Grade: " + grade);  
sc.close();
```

}

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