

```
1 // Harini. R 192324108
2 //JF section-5_1 question-1
3 import java.util.Scanner;
4
5 public class Checking {
6     public static void main(String[] args) {
7         Scanner in= new Scanner(System.in);
8         System.out.print("enter the value of x: ");
9         int x= in.nextInt();
10        boolean result= (x<=7) ? true : false;
11        System.out.println("result: "+result);
12    }
13 }
14
```



```
enter the value of x: 5
result: true
```

```
1 // Harini. R 192324108
2 //JF section-5_1 question-2(part-1)
3 import java.util.Scanner;
4
5 public class CalculatorFloating{
6     public static void main(String[] args) {
7         Scanner in=new Scanner(System.in);
8         System.out.print("enter a decimal number: ");
9         double num1= in.nextDouble();
10        System.out.print("enter another decimal number: ");
11        double num2= in.nextDouble();
12        System.out.print("enter the operation: ");
13        char input=in.next().charAt(0);
14
15        double result;
16
17        switch(input){
18            case '+':
19                result=num1+num2;
20                System.out.print("result: "+result);
21                break;
22            case '-':
23                result=num1-num2;
24                System.out.print("result: "+result);
25                break;
26            case '*':
27                result=num1*num2;
28                System.out.print("result: "+result);
29                break;
30            case '/':
31                result=num1/num2;
32                System.out.print("result: "+result);
33                break;
34            case '%':
35                result=num1%num2;
36                System.out.print("result: "+result);
37                break;
38            default:
39                System.out.print("invalid operator");
40                break;
41        }
42        in.close();
43    }
44 }
```

enter a decimal number: 2.5

enter another decimal number: 5.1

enter the operation: +

result: 7.6

```

1 // Harini. R 192324108
2 //JF section-5_1 question-2(part-2)
3 import java.util.Scanner;
4
5 public class CalculatorIfElse {
6     public static void main(String[] args) {
7         Scanner scanner = new Scanner(System.in);
8         System.out.print("Enter the first number: ");
9         double num1 = scanner.nextDouble();
10        System.out.print("Enter the second number: ");
11        double num2 = scanner.nextDouble();
12        System.out.print("Enter an operator (*, +, /, %, -): ");
13        char operator = scanner.next().charAt(0);
14        double result;
15
16        if (operator == '+') {
17            result = num1 + num2;
18        } else if (operator == '-') {
19            result = num1 - num2;
20        } else if (operator == '*') {
21            result = num1 * num2;
22        } else if (operator == '/') {
23            if (num2 != 0) {
24                result = num1 / num2;
25            } else {
26                System.out.println("Error: Division by zero is not allowed.");
27                return;
28            }
29        } else if (operator == '%') {
30            if (num2 != 0) {
31                result = num1 % num2;
32            } else {
33                System.out.println("Error: Division by zero is not allowed.");
34                return;
35            }
36        } else {
37            System.out.println("Error: Invalid operator.");
38            return;
39        }
40        System.out.println("The result is: " + result);
41    }
42 }
43

```

Enter the first number: 5.1

Enter the second number: 2.5

Enter an operator (*, +, /, %, -): +

The result is: 7.6

```
1 // Harini. R 192324108
2 //JF section-5_1 question-3
3 package test;
4
5 import java.util.Scanner;
6
7 public class PlanetWeightCalculator {
8     public static void main(String[] args) {
9         Scanner scanner = new Scanner(System.in);
10        System.out.print("Enter your weight on Earth (in lbs): ");
11        double earthWeight = scanner.nextDouble();
12        System.out.println("Select a planet from the menu:");
13        System.out.println("1. Mercury");
14        System.out.println("2. Venus");
15        System.out.println("3. Mars");
16        System.out.println("4. Jupiter");
17        System.out.println("5. Saturn");
18        System.out.println("6. Uranus");
19        System.out.println("7. Neptune");
20        System.out.print("Enter the number corresponding to the planet: ");
21        int choice = scanner.nextInt();
22        double conversionFactor = 0;
23        String planetName = "";
24
25        switch (choice) {
26            case 1:
27                conversionFactor = 0.38;
28                planetName = "Mercury";
29                break;
30            case 2:
31                conversionFactor = 0.91;
32                planetName = "Venus";
33                break;
34            case 3:
35                conversionFactor = 0.38;
36                planetName = "Mars";
37                break;
38            case 4:
```

```
39         conversionFactor = 2.36;
40         planetName = "Jupiter";
41         break;
42     case 5:
43         conversionFactor = 0.92;
44         planetName = "Saturn";
45         break;
46     case 6:
47         conversionFactor = 0.89;
48         planetName = "Uranus";
49         break;
50     case 7:
51         conversionFactor = 1.13;
52         planetName = "Neptune";
53         break;
54     default:
55         System.out.println("Invalid choice. Please run the program again and select a valid planet.");
56         return;
57     }
58     double planetWeight = earthWeight * conversionFactor;
59     System.out.println("Your weight on " + planetName + " is " + planetWeight + " lbs.");
60 }
61 }
62
```

<terminated> PlanetWeightCalculator [Java Application] C:\Users\harin\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.1.v20240426-1149\

Enter your weight on Earth (in lbs): 97

Select a planet from the menu:

1. Mercury
2. Venus
3. Mars
4. Jupiter
5. Saturn
6. Uranus
7. Neptune

Enter the number corresponding to the planet: 2

Your weight on Venus is 88.27 lbs.


```
1 // Harini. R 192324108
2 //JF section-5_1 question-4
3 package test;
4
5 import java.util.Scanner;
6
7 public class MountvilleUniversityAdmission {
8     public static void main(String[] args) {
9         Scanner scanner = new Scanner(System.in);
10        System.out.print("Were you a valedictorian or salutatorian of a school with 1400 or more students? (yes/no): ");
11        String topStudent = scanner.nextLine().trim().toLowerCase();
12        System.out.print("Enter your GPA: ");
13        double gpa = scanner.nextDouble();
14        System.out.print("Enter your SAT score: ");
15        int satScore = scanner.nextInt();
16
17        boolean isAdmitted = false;
18
19        if (topStudent.equals("yes")) {
20            isAdmitted = true;
21        } else if (gpa >= 4.0 && satScore >= 1100) {
22            isAdmitted = true;
23        } else if (gpa >= 3.5 && satScore >= 1300) {
24            isAdmitted = true;
25        } else if (gpa >= 3.0 && satScore >= 1500) {
26            isAdmitted = true;
27        }
28        if (isAdmitted) {
29            System.out.println("Congratulations! You are admitted to Mountville University.");
30        } else {
31            System.out.println("Sorry, you do not meet the admission criteria for Mountville University.");
32        }
33    }
34 }
35
```

Problems Javadoc Declaration Console × Coverage Error Log

<terminated> MountvilleUniversityAdmission [Java Application] C:\Users\harin\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.1.v20240426-1149\jre\bin\javaw.exe (J

Were you a valedictorian or salutatorian of a school with 1400 or more students? (yes/no): yes

Enter your GPA: 9.1

Enter your SAT score: 1450

Congratulations! You are admitted to Mountville University.

```

1 // Harini. R 192324108
2 //JF section-5_1 question-5
3 package absence_prof;
4 import java.util.Scanner;
5
6 public class exam_excemption {
7     public static void main(String[] args) {
8         double average;
9         int daysAbsent;
10        boolean exempt=false;
11        Scanner reader= new Scanner(System.in);
12        System.out.println("This program will determine if you can get out of the final exam.");
13        System.out.println("Please answer the following questions.");
14        System.out.println("What is your average in the class?");
15        average=reader.nextDouble();
16        System.out.println("How class lectures have you missed?");
17        daysAbsent=reader.nextInt();
18
19        if(average>=90 && daysAbsent<=3)
20        {
21            exempt=true;
22        }
23        else if(average>=80 && daysAbsent<=0)
24        {
25            exempt=true;
26        }
27        if(exempt)
28            System.out.println("Congratulations! You are exempt from the final exam.");
29        else
30            System.out.println("You are not exempt from the final exam.");
31    }
32 }

```

Problems Javadoc Declaration Console × Coverage Error Log

<terminated> exam_excemption [Java Application] C:\Users\harin\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.1.v20240426-1149\jre\bin\javaw.exe (22 Aug 2024)

This program will determine if you can get out of the final exam.

Please answer the following questions.

What is your average in the class?

95

How class lectures have you missed?

2

Congratulations! You are exempt from the final exam.

```

1 // Harini. R 192324108
2 //JF section-5_1 question-7
3 import java.util.Scanner;
4
5 public class PaintCalculator {
6     public static void main(String[] args) {
7         Scanner scanner = new Scanner(System.in);
8         System.out.print("Enter the height of the room (in feet): ");
9         double height = scanner.nextDouble();
10        System.out.print("Enter the length of the room (in feet): ");
11        double length = scanner.nextDouble();
12        System.out.print("Enter the width of the room (in feet): ");
13        double width = scanner.nextDouble();
14        double wallArea = 2 * height * (length + width);
15        double ceilingArea = length * width;
16        double totalArea = wallArea + ceilingArea;
17        double areaCoveredBy5L = 1500;
18        double areaCoveredBy1L = 300;
19
20        int num5LBuckets = (int)(totalArea / areaCoveredBy5L);
21        double remainingArea = totalArea % areaCoveredBy5L;
22        int num1LBuckets = (int)Math.ceil(remainingArea / areaCoveredBy1L);
23        int totalCost = (num5LBuckets * 15) + (num1LBuckets * 4);
24        System.out.println("Total area to be painted: " + totalArea + " square feet.");
25        System.out.println("Number of 5-liter buckets needed: " + num5LBuckets);
26        System.out.println("Number of 1-liter buckets needed: " + num1LBuckets);
27        System.out.println("Total cost: $" + totalCost);
28    }
29 }
30

```

input

```

Enter the height of the room (in feet): 15
Enter the length of the room (in feet): 30
Enter the width of the room (in feet): 20
Total area to be painted: 2100.0 square feet.
Number of 5-liter buckets needed: 1
Number of 1-liter buckets needed: 2
Total cost: $23

```