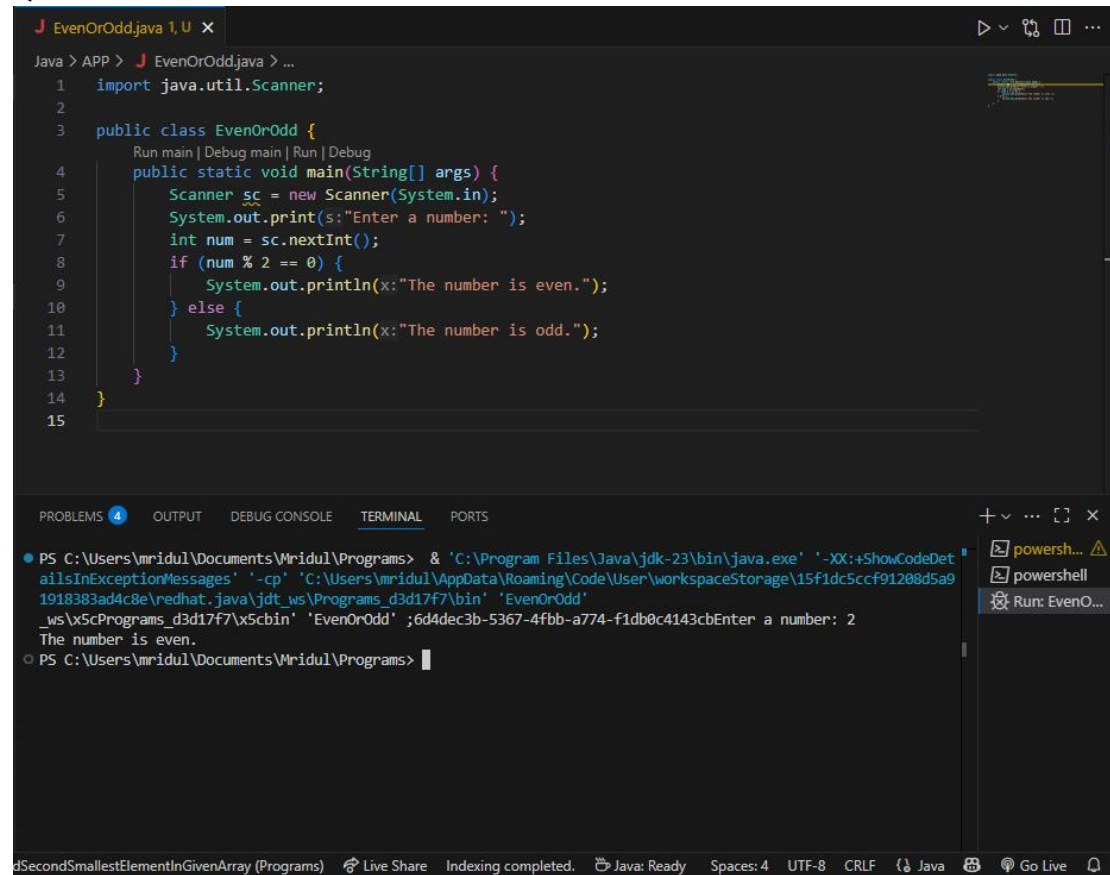


Name - Mridul Mathur  
Reg. No - RA2411026010137  
Section - AD-1

Q1



```
Java > APP > J EvenOrOdd.java > ...
1  import java.util.Scanner;
2
3  public class EvenOrOdd {
4      Run main | Debug main | Run | Debug
5      public static void main(String[] args) {
6          Scanner sc = new Scanner(System.in);
7          System.out.print(s:"Enter a number: ");
8          int num = sc.nextInt();
9          if (num % 2 == 0) {
10             System.out.println(x:"The number is even.");
11         } else {
12             System.out.println(x:"The number is odd.");
13         }
14     }
15 }

PROBLEMS 4 OUTPUT DEBUG CONSOLE TERMINAL PORTS
● PS C:\Users\mridul\Documents\Mridul\Programs> & 'C:\Program Files\Java\jdk-23\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\mridul\AppData\Roaming\Code\User\workspaceStorage\15f1dc5ccf91208d5a91918383ad4c8e\redhat.java\jdt_ws\Programs_d3d17f7\bin' 'EvenOrOdd'
The number is even.
○ PS C:\Users\mridul\Documents\Mridul\Programs> |
```

Q2

```
Java > APP > J AgeCheck.java > ...
1  import java.util.Scanner;
2
3  public class AgeCheck {
4      public static void main(String[] args) {
5          Scanner sc = new Scanner(System.in);
6          System.out.print(s:"Enter your age: ");
7          int age = sc.nextInt();
8          if (age >= 18) {
9              System.out.println(x:"You are eligible to vote.");
10             } else {
11                 System.out.println(x:"You are not eligible to vote.");
12             }
13         }
14     }
15 }
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\mridul\Documents\Wridul\Programs> & 'C:\Program Files\Java\jdk-23\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\mridul\AppData\Roaming\Code\User\workspaceStorage\15f1dc5ccf91208d5a91918383ad4c8e\redhat.java\jdt\_ws\Programs\_d3d17f7\bin' 'AgeCheck' \_ws\x5cPrograms\_d3d17f7\x5cbin' 'AgeCheck' ;60694cbd-aaff-401a-8d86-fbdc8745f2a1Enter your age: 19  
You are eligible to vote.

PS C:\Users\mridul\Documents\Wridul\Programs> |

Q3

```
Java > APP > J VendingMachine.java > ...
1  import java.util.Scanner;
2
3  public class VendingMachine {
4      public static void main(String[] args) {
5          Scanner sc = new Scanner(System.in);
6          System.out.println(x:"Press 1 for juice or 2 for soda.");
7          int choice = sc.nextInt();
8          if (choice == 1) {
9              System.out.println(x:"Dispensing juice.");
10             } else if (choice == 2) {
11                 System.out.println(x:"Dispensing soda.");
12             } else {
13                 System.out.println(x:"Invalid choice.");
14             }
15         }
16     }
17 }
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\mridul\Documents\Wridul\Programs> & 'C:\Program Files\Java\jdk-23\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\mridul\AppData\Roaming\Code\User\workspaceStorage\15f1dc5ccf91208d5a91918383ad4c8e\redhat.java\jdt\_ws\Programs\_d3d17f7\bin' 'VendingMachine' \_ws\x5cPrograms\_d3d17f7\x5cbin' 'VendingMachine' ;686c6862-926b-434b-bc1a-627dfbcb67b6Press 1 for juice or 2 for soda.  
1  
Dispensing juice.

PS C:\Users\mridul\Documents\Wridul\Programs> |

Q4

The screenshot shows an IDE with a Java file named `TemperatureCheck.java`. The code defines a `TemperatureCheck` class with a `main` method that uses a `Scanner` to read an integer temperature and prints a message based on its value: "It's hot!" for temperatures above 30, "It's warm." for temperatures between 20 and 30, "It's cool." for temperatures between 10 and 20, and "It's cold." for temperatures below 10. The terminal shows the command to run the program, followed by the input "1" and the output "It's cold."

```
1 import java.util.Scanner;
2
3 public class TemperatureCheck {
4     public static void main(String[] args) {
5         Scanner sc = new Scanner(System.in);
6         System.out.print(s:"Enter the temperature in Celsius: ");
7         int temp = sc.nextInt();
8         if (temp > 30) {
9             System.out.println(x:"It's hot!");
10        } else if (temp >= 20 && temp <= 30) {
11            System.out.println(x:"It's warm.");
12        } else if (temp >= 10 && temp < 20) {
13            System.out.println(x:"It's cool.");
14        } else {
15            System.out.println(x:"It's cold.");
16        }
17    }
18 }
```

Terminal output:

```
PS C:\Users\mridul\Documents\mridul\Programs> & 'C:\Program Files\Java\jdk-23\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\mridul\AppData\Roaming\Code\User\workspaceStorage\15f1dc5ccf91208d5a91918383ad4c8e\redhat.java\jdt_ws\Programs_d3d17f7\bin' 'TemperatureCheck' _ws\x5cPrograms_d3d17f7\x5cbin 'TemperatureCheck' ;7c7eea52-cf7c-42ff-9e69-7a49c27c407dEnter the temperature in Celsius: 1
It's cold.
PS C:\Users\mridul\Documents\mridul\Programs>
```

Q5

The screenshot shows an IDE with a Java file named `NumberSign.java`. The code defines a `NumberSign` class with a `main` method that uses a `Scanner` to read an integer number and prints a message based on its value: "The number is positive." for positive numbers, "The number is negative." for negative numbers, and "The number is zero." for zero. The terminal shows the command to run the program, followed by the input "-1" and the output "The number is negative."

```
1 import java.util.Scanner;
2
3 public class NumberSign {
4     public static void main(String[] args) {
5         Scanner sc = new Scanner(System.in);
6         System.out.print(s:"Enter a number: ");
7         int num = sc.nextInt();
8         if (num > 0) {
9             System.out.println(x:"The number is positive.");
10        } else if (num < 0) {
11            System.out.println(x:"The number is negative.");
12        } else {
13            System.out.println(x:"The number is zero.");
14        }
15    }
16 }
17 }
```

Terminal output:

```
PS C:\Users\mridul\Documents\mridul\Programs> & 'C:\Program Files\Java\jdk-23\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\mridul\AppData\Roaming\Code\User\workspaceStorage\15f1dc5ccf91208d5a91918383ad4c8e\redhat.java\jdt_ws\Programs_d3d17f7\bin' 'NumberSign' _ws\x5cPrograms_d3d17f7\x5cbin 'NumberSign' ;94992ed6-56ee-4063-91a0-77a2780fa525Enter a number: -1
The number is negative.
PS C:\Users\mridul\Documents\mridul\Programs>
```

Q6

The screenshot shows an IDE with the file `GradingSystem.java` open. The code is as follows:

```

1  import java.util.Scanner;
2
3  public class GradingSystem {
4      Run main | Debug main | Run | Debug
5      public static void main(String[] args) {
6          Scanner sc = new Scanner(System.in);
7          System.out.print(s:"Enter your exam score (0 to 100): ");
8          int score = sc.nextInt();
9          switch (score / 10) {
10             case 10:
11             case 9:
12                 System.out.println(x:"A (Excellent)");
13                 break;
14             case 8:
15                 System.out.println(x:"B (Very Good)");
16                 break;
17             case 7:
18                 System.out.println(x:"C (Good)");
19                 break;
20             case 6:
21                 System.out.println(x:"D (Satisfactory)");
22                 break;
23             case 5:
24             case 4:
25             case 3:
26             case 2:

```

The terminal output shows the execution of the program:

```

PS C:\Users\mrindul\Documents\Mrindul\Programs> & 'C:\Program Files\Java\jdk-23\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\mrindul\AppData\Roaming\Code\User\workspaceStorage\15f1dc5ccf91208d5a91918383ad4c8e\redhat.java\jdt_ws\Programs_d3d17f7\bin' 'GradingSystem'
Enter your exam score (0 to 100): 88
B (Very Good)
PS C:\Users\mrindul\Documents\Mrindul\Programs>

```

Q7

The screenshot shows an IDE with the file `SimpleCalculator.java` open. The code is as follows:

```

1  import java.util.Scanner;
2
3  public class SimpleCalculator {
4      Run main | Debug main | Run | Debug
5      public static void main(String[] args) {
6          Scanner sc = new Scanner(System.in);
7          System.out.println(x:"Enter 1 for addition or 2 for subtraction.");
8          int choice = sc.nextInt();
9
10         if (choice == 1) {
11             System.out.print(s:"Enter first number: ");
12             int a = sc.nextInt();
13             System.out.print(s:"Enter second number: ");
14             int b = sc.nextInt();
15             System.out.println("Sum = " + (a + b));
16         } else if (choice == 2) {
17             System.out.print(s:"Enter first number: ");
18             int a = sc.nextInt();
19             System.out.print(s:"Enter second number: ");
20             int b = sc.nextInt();
21             System.out.println("Difference = " + (a - b));
22         } else {
23             System.out.println(x:"Invalid choice.");
24         }
25     }
26 }

```

The terminal output shows the execution of the program:

```

PS C:\Users\mrindul\Documents\Mrindul\Programs> & 'C:\Program Files\Java\jdk-23\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\mrindul\AppData\Roaming\Code\User\workspaceStorage\15f1dc5ccf91208d5a91918383ad4c8e\redhat.java\jdt_ws\Programs_d3d17f7\bin' 'SimpleCalculator'
Enter 1 for addition or 2 for subtraction.
1
Enter first number: 1
Enter second number: 1
Sum = 2
PS C:\Users\mrindul\Documents\Mrindul\Programs>

```



Q8

The screenshot shows an IDE with three tabs: `GradingSystem.java 2, U`, `SimpleCalculator.java 2, U`, and `LeapYearCheck.java 1, U`. The `LeapYearCheck.java` tab is active, displaying the following code:

```
2
3 public class LeapYearCheck {
4     public static void main(String[] args) {
5         Scanner sc = new Scanner(System.in);
6         System.out.print(s:"Enter a year: ");
7         int year = sc.nextInt();
8
9         if (year % 4 == 0) {
10             if (year % 100 == 0) {
11                 if (year % 400 == 0) {
12                     System.out.println(x:"It's a leap year.");
13                 } else {
14                     System.out.println(x:"It's not a leap year.");
15                 }
16             } else {
17                 System.out.println(x:"It's a leap year.");
18             }
19         } else {
20             System.out.println(x:"It's not a leap year.");
21         }
22     }
23 }
24
```

The bottom panel shows the `TERMINAL` tab with the following output:

```
s\mridul\Documents\Mridul\Programs>
● & 'C:\Program Files\Java\jdk-23\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\mridu
1\AppData\Roaming\Code\User\workspaceStorage\15f1dc5ccf91208d5a91918383ad4c8e\redhat.java\jdt_ws\Programs_d3d1
7f7\bin' 'LeapYearCheck'
_ws\Programs_d3d17f7\bin' 'LeapYearCheck' ;f710a375-b64d-4d4f-bce8-45ad75d63b4dEnter a year: 2024
It's a leap year.
○ PS C:\Users\mridul\Documents\Mridul\Programs>
```

On the right side of the terminal, there are three buttons: `Run: Gradin...`, `Run: Simple...`, and `Run: LeapYe...`.