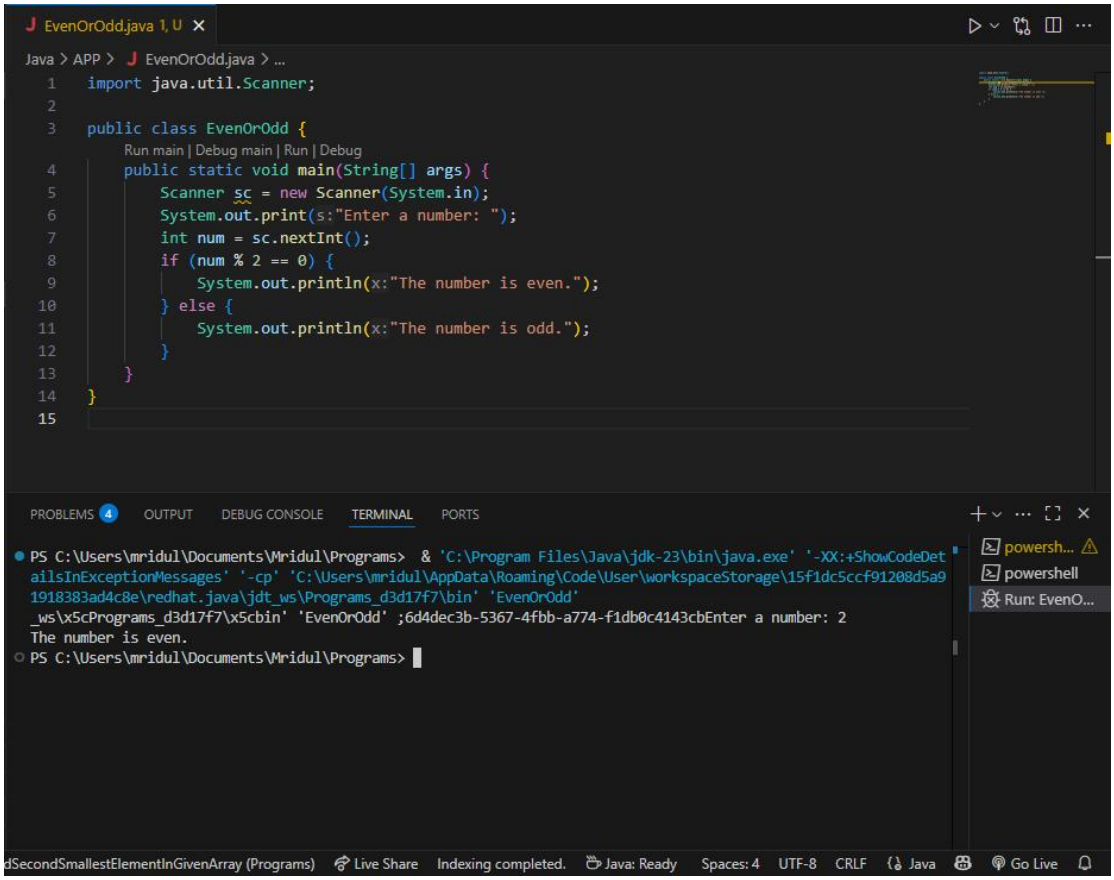
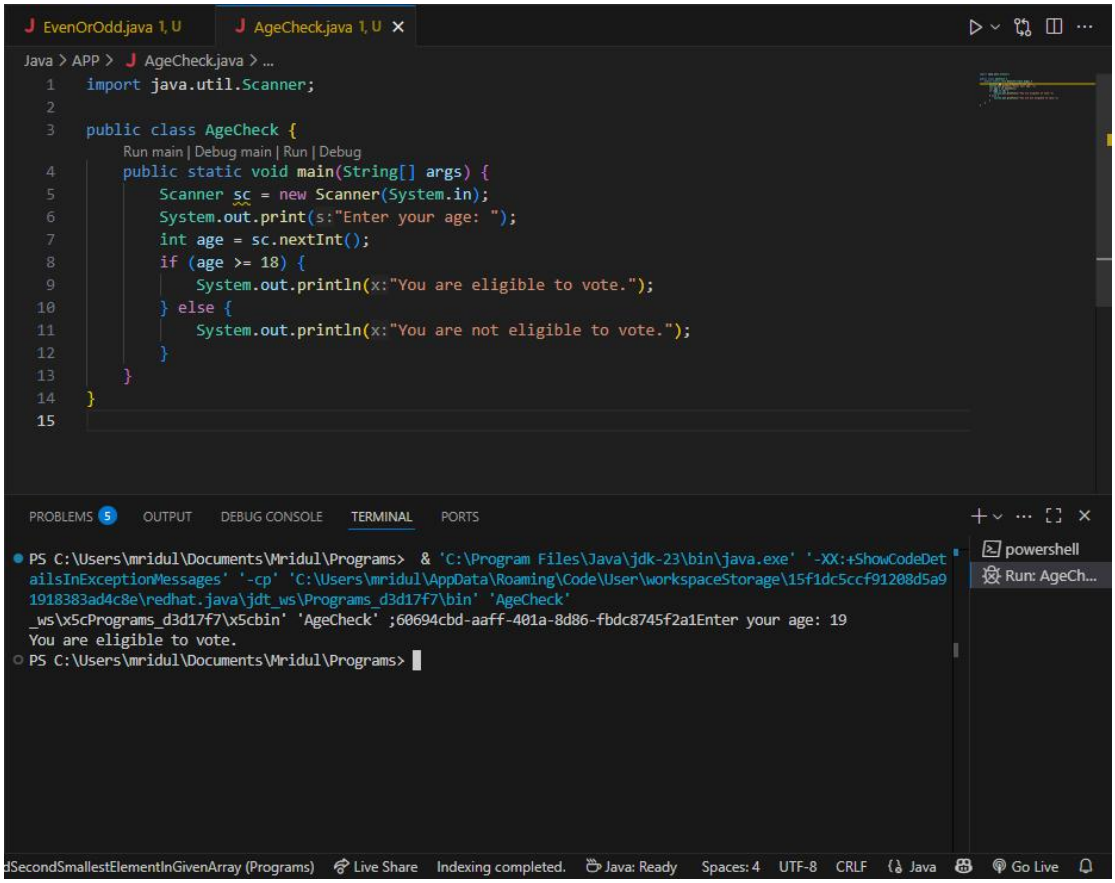
Name - Mridul Mathur
Reg. No - RA2411026010137
Section - AD-1

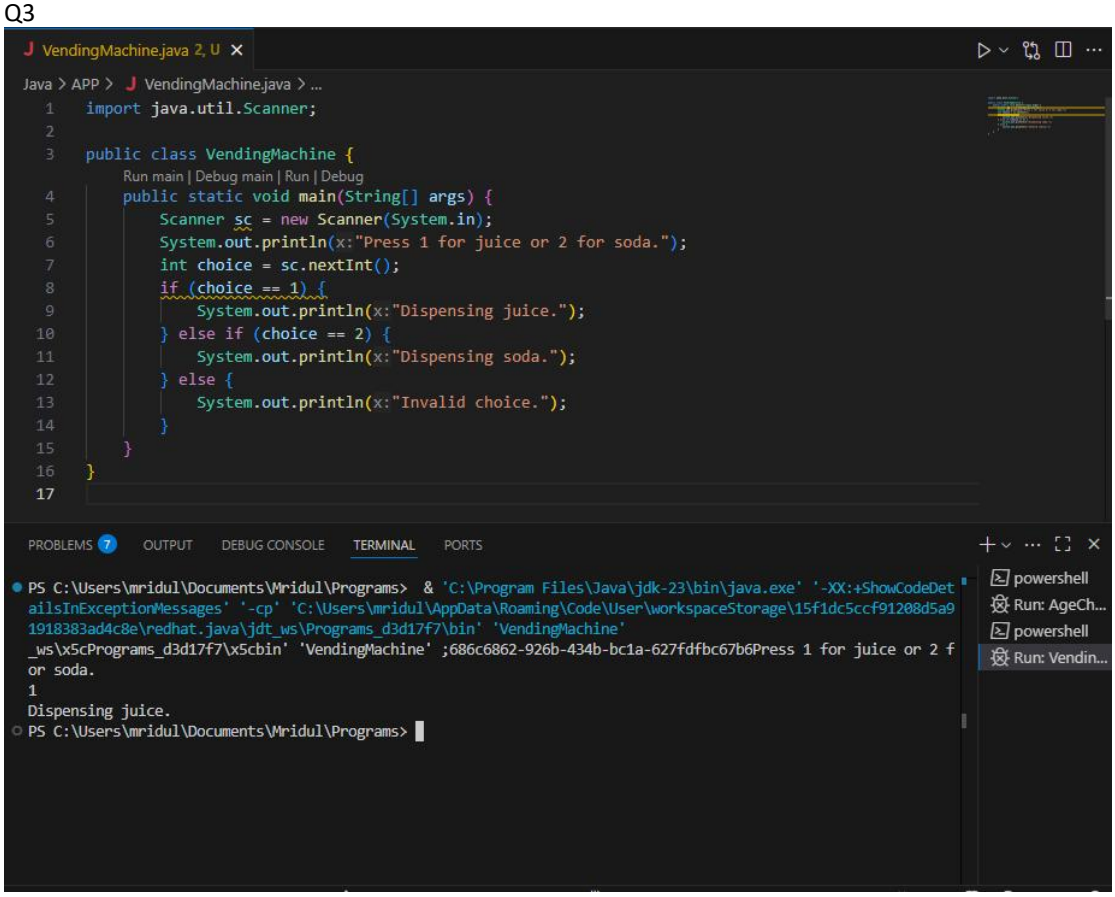
Q1



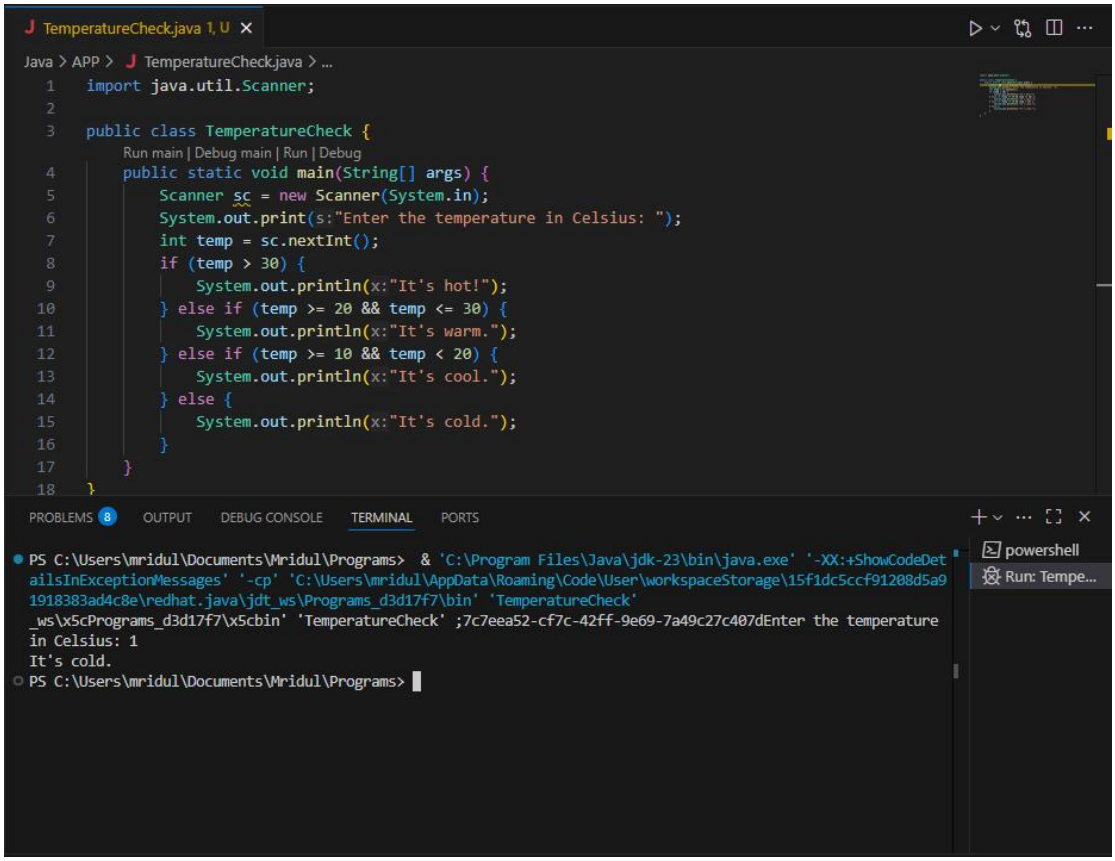
Q2


EvenOrOdd.java 1, U
AgeCheck.java 1, U
Java > APP > AgeCheck.java > ...
import java.util.Scanner;
public class AgeCheck {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.print(s:"Enter your age: ");
int age = sc.nextInt();
if (age >= 18) {
System.out.println(x:"You are eligible to vote.");
} else {
System.out.println(x:"You are not eligible to vote.");
}
}
}
PROBLEMS 5
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' 'AgeCheck'
_ws\x5cPrograms_d3d17f7\x5cbin' 'AgeCheck' ;60694cbd-aaff-401a-8d86-fbdc8745f2a1Enter your age: 19
You are eligible to vote.
PS C:\Users\mridul\Documents\Mridul\Programs>
powershell
Run: AgeCh...
dSecondSmallestElementInGivenArray (Programs)
Live Share
Indexing completed.
Java: Ready
Spaces: 4
UTF-8
CRLF
Java
Go Live

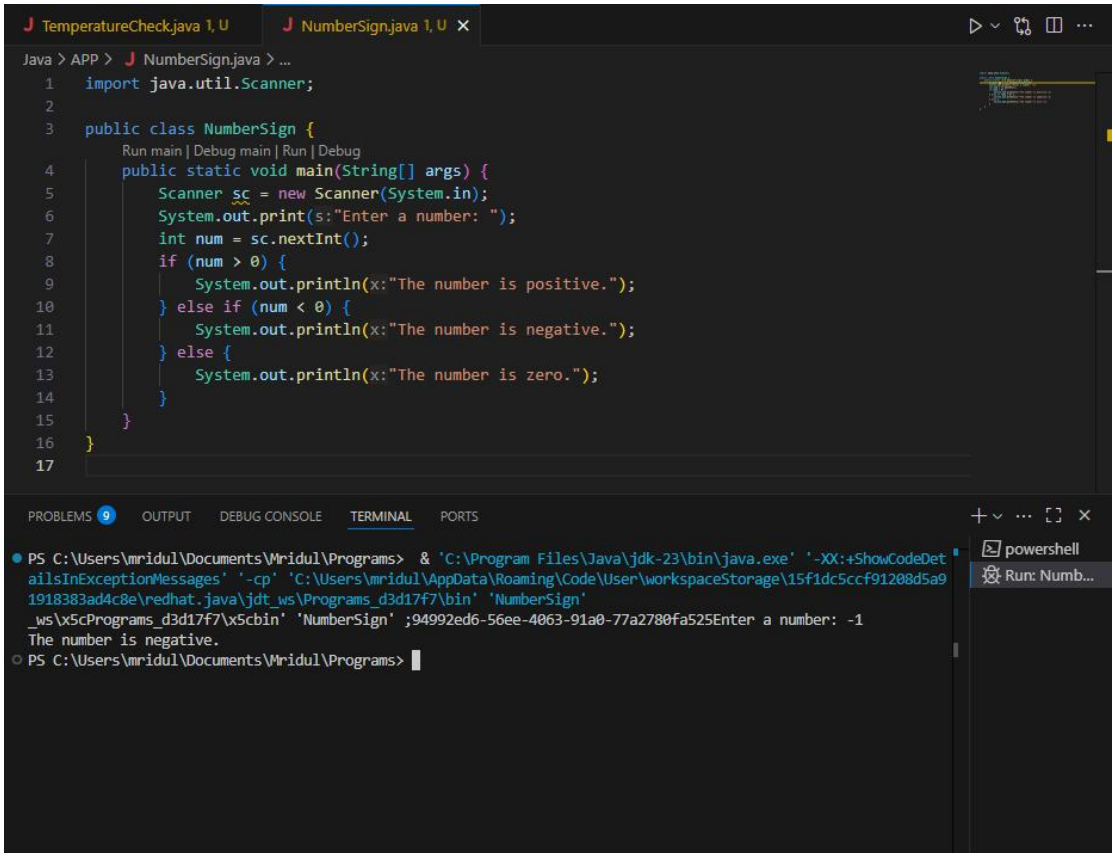
Q3


VendingMachine.java 2, U
Java > APP > VendingMachine.java > ...
import java.util.Scanner;
public class VendingMachine {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.println(x:"Press 1 for juice or 2 for soda.");
int choice = sc.nextInt();
if (choice == 1) {
System.out.println(x:"Dispensing juice.");
} else if (choice == 2) {
System.out.println(x:"Dispensing soda.");
} else {
System.out.println(x:"Invalid choice.");
}
}
}
PROBLEMS 7
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' 'VendingMachine'
_ws\x5cPrograms_d3d17f7\x5cbin' 'VendingMachine' ;686c6862-926b-434b-bc1a-627fdfbc67b6Press 1 for juice or 2 for soda.
1
Dispensing juice.
PS C:\Users\mridul\Documents\Mridul\Programs>
powershell
Run: AgeCh...
powershell
Run: Vendin...

Q4


TemperatureCheck.java 1, U
Java > APP > TemperatureCheck.java > ...
import java.util.Scanner;
public class TemperatureCheck {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.print("Enter the temperature in Celsius: ");
int temp = sc.nextInt();
if (temp > 30) {
System.out.println("It's hot!");
} else if (temp >= 20 && temp <= 30) {
System.out.println("It's warm.");
} else if (temp >= 10 && temp < 20) {
System.out.println("It's cool.");
} else {
System.out.println("It's cold.");
}
}
}
PROBLEMS 8
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' '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>
powershell
Run: Tempe...

Q5


TemperatureCheck.java 1, U
NumberSign.java 1, U
Java > APP > NumberSign.java > ...
import java.util.Scanner;
public class NumberSign {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.print("Enter a number: ");
int num = sc.nextInt();
if (num > 0) {
System.out.println("The number is positive.");
} else if (num < 0) {
System.out.println("The number is negative.");
} else {
System.out.println("The number is zero.");
}
}
}
PROBLEMS 9
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' '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>
powershell
Run: Numb...

Q6

GradingSystem.java 2, U

Java > APP > GradingSystem.java > ...

```java
import java.util.Scanner;

public class GradingSystem {
    Run main | Debug main | Run | Debug
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print(s:"Enter your exam score (0 to 100): ");
        int score = sc.nextInt();
        switch (score / 10) {
            case 10:
            case 9:
                System.out.println(x:"A (Excellent)");
                break;
            case 8:
                System.out.println(x:"B (Very Good)");
                break;
            case 7:
                System.out.println(x:"C (Good)");
                break;
            case 6:
                System.out.println(x:"D (Satisfactory)");
                break;
            case 5:
            case 4:
            case 3:
            case 2:
```

PROBLEMS 11 OUTPUT DEBUG CONSOLE TERMINAL PORTS Run: GradingSystem

```
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\15f1dc5ccf91208d5a9191838ad4c8e\redhat.java\jdt_ws\Programs_d3d17f7\bin' 'GradingSystem'
Enter your exam score (0 to 100): 88
B (Very Good)
PS C:\Users\mridul\Documents\Mridul\Programs>
```

Q7

GradingSystem.java 2, U | SimpleCalculator.java 2, U

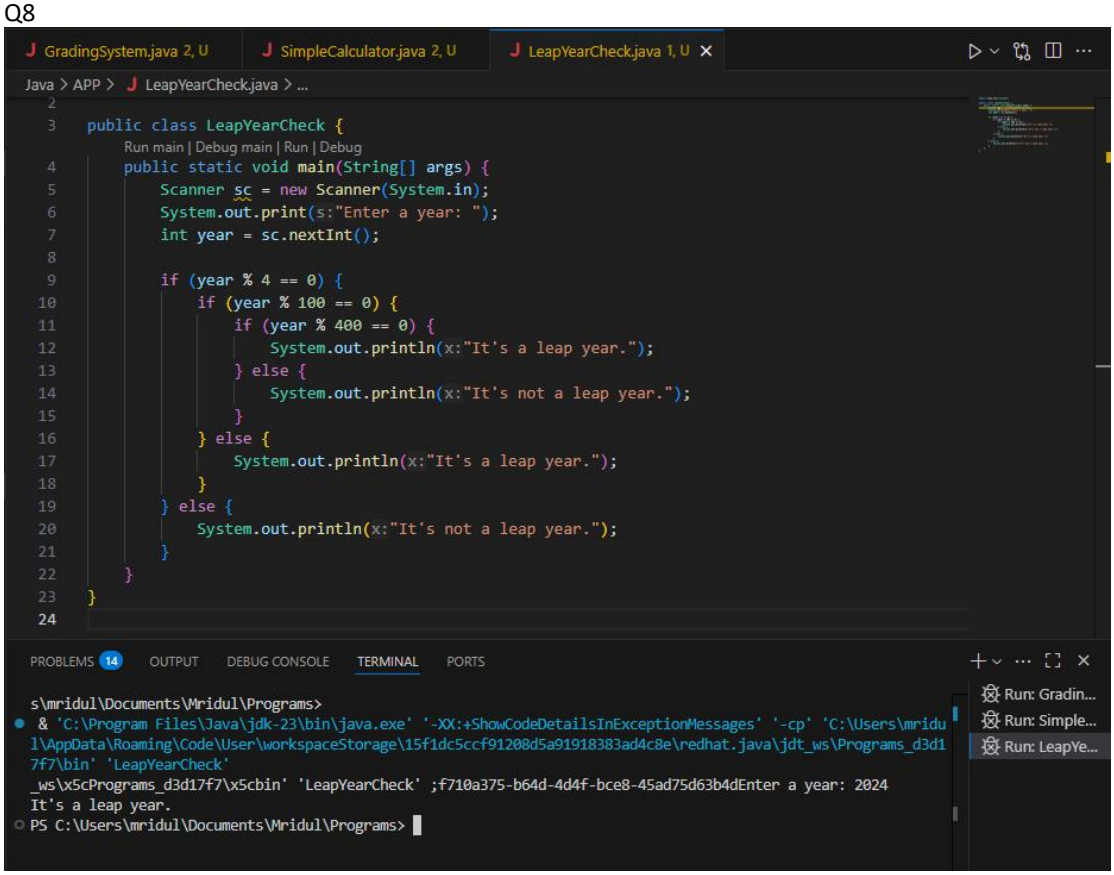
Java > APP > SimpleCalculator.java > ...

```java
import java.util.Scanner;

public class SimpleCalculator {
    Run main | Debug main | Run | Debug
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println(x:"Enter 1 for addition or 2 for subtraction.");
        int choice = sc.nextInt();

        if (choice == 1) {
            System.out.print(s:"Enter first number: ");
            int a = sc.nextInt();
            System.out.print(s:"Enter second number: ");
            int b = sc.nextInt();
            System.out.println("Sum = " + (a + b));
        } else if (choice == 2) {
            System.out.print(s:"Enter first number: ");
            int a = sc.nextInt();
            System.out.print(s:"Enter second number: ");
            int b = sc.nextInt();
            System.out.println("Difference = " + (a - b));
        } else {
            System.out.println(x:"Invalid choice.");
        }
```

PROBLEMS 13 OUTPUT DEBUG CONSOLE TERMINAL PORTS Run: Gradin... Run: Simple...

```
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' 'SimpleCalculator'
Enter 1 for addition or 2 for subtraction.
1
Enter first number: 1
Enter second number: 1
Sum = 2
PS C:\Users\mridul\Documents\Mridul\Programs>
```

Q8


GradingSystem.java 2, U
SimpleCalculator.java 2, U
LeapYearCheck.java 1, U
Java > APP > LeapYearCheck.java > ...
public class LeapYearCheck {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.print(s:"Enter a year: ");
int year = sc.nextInt();
if (year % 4 == 0) {
if (year % 100 == 0) {
if (year % 400 == 0) {
System.out.println(x:"It's a leap year.");
} else {
System.out.println(x:"It's not a leap year.");
}
} else {
System.out.println(x:"It's a leap year.");
}
} else {
System.out.println(x:"It's not a leap year.");
}
}
}
PROBLEMS 14
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
s\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' 'LeapYearCheck'
_ws\x5cPrograms_d3d17f7\x5cbin' 'LeapYearCheck' ;f710a375-b64d-4d4f-bce8-45ad75d63b4dEnter a year: 2024
It's a leap year.
PS C:\Users\mridul\Documents\Mridul\Programs>
Run: Gradin...
Run: Simple...
Run: LeapYe...