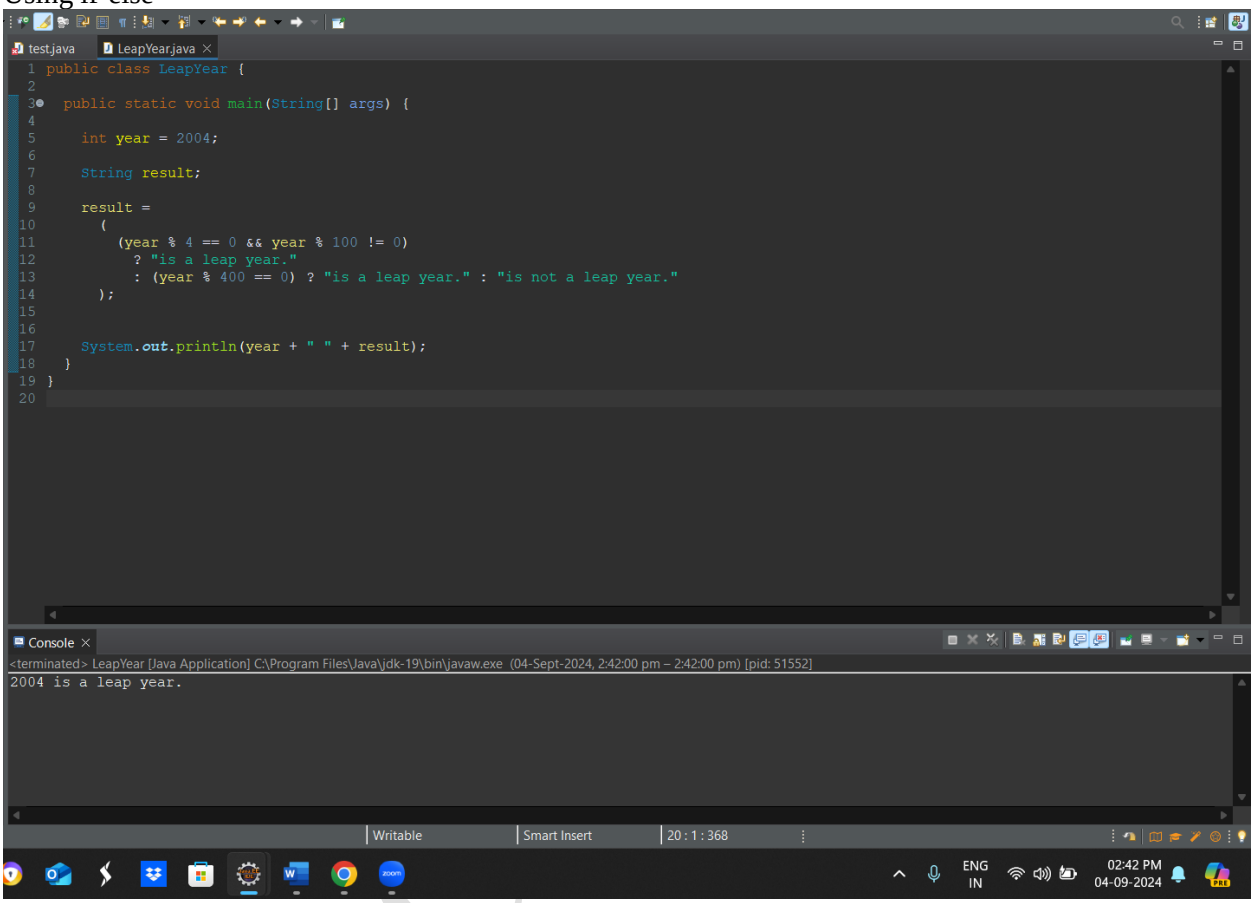
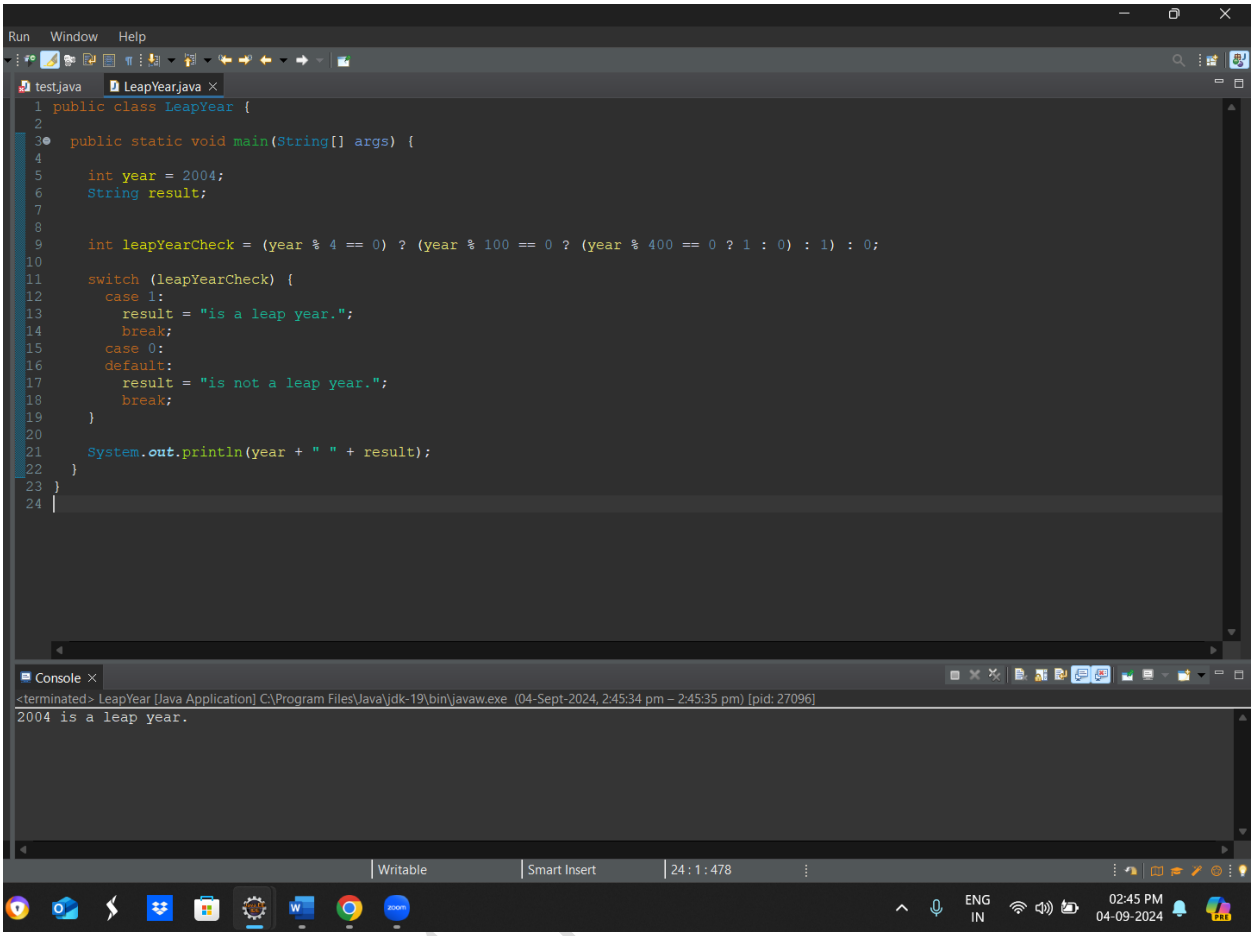
Assignment No- 2

1)Write a program that checks if a given year is a leap year or not using both if-else and switch-case.

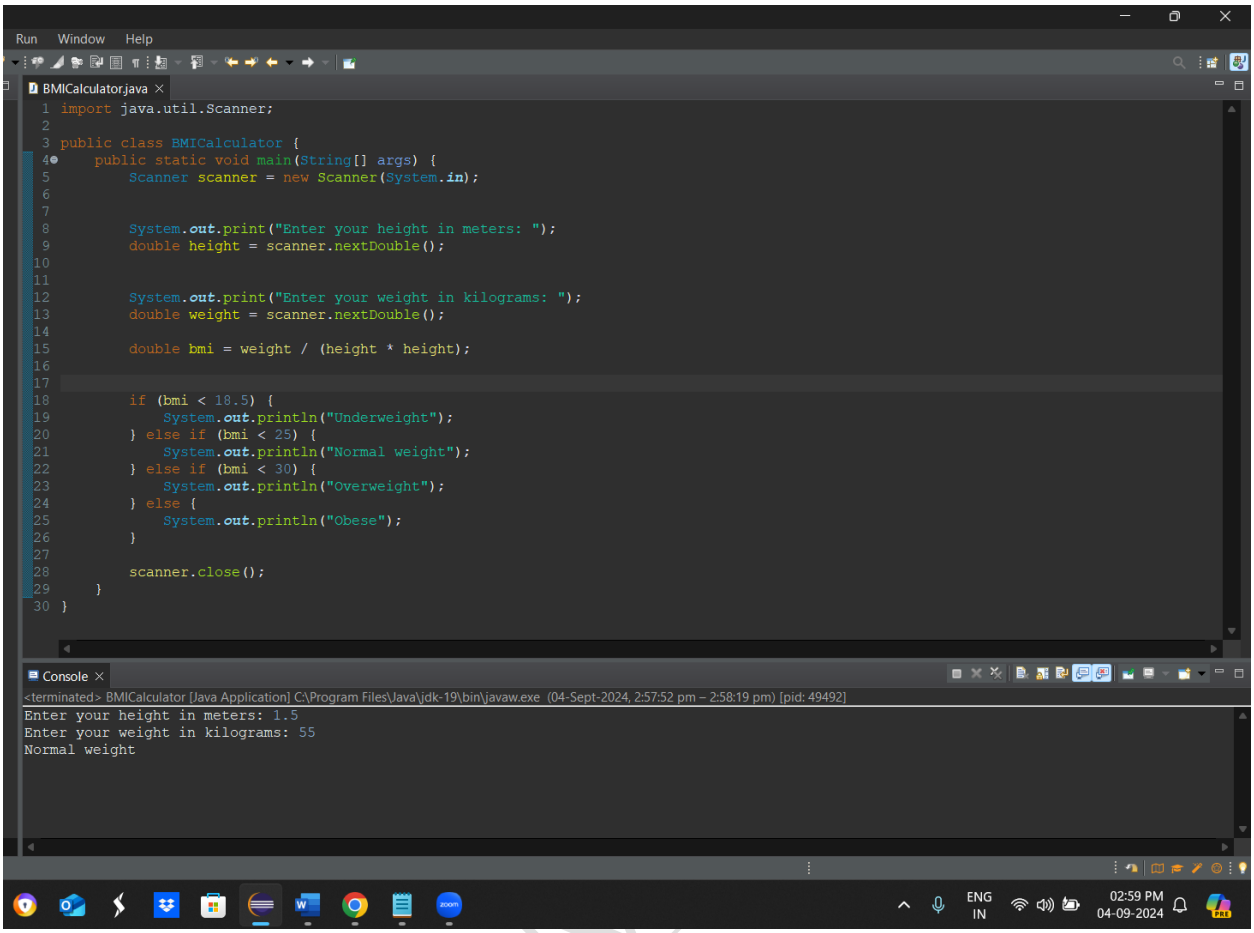
Using if-else



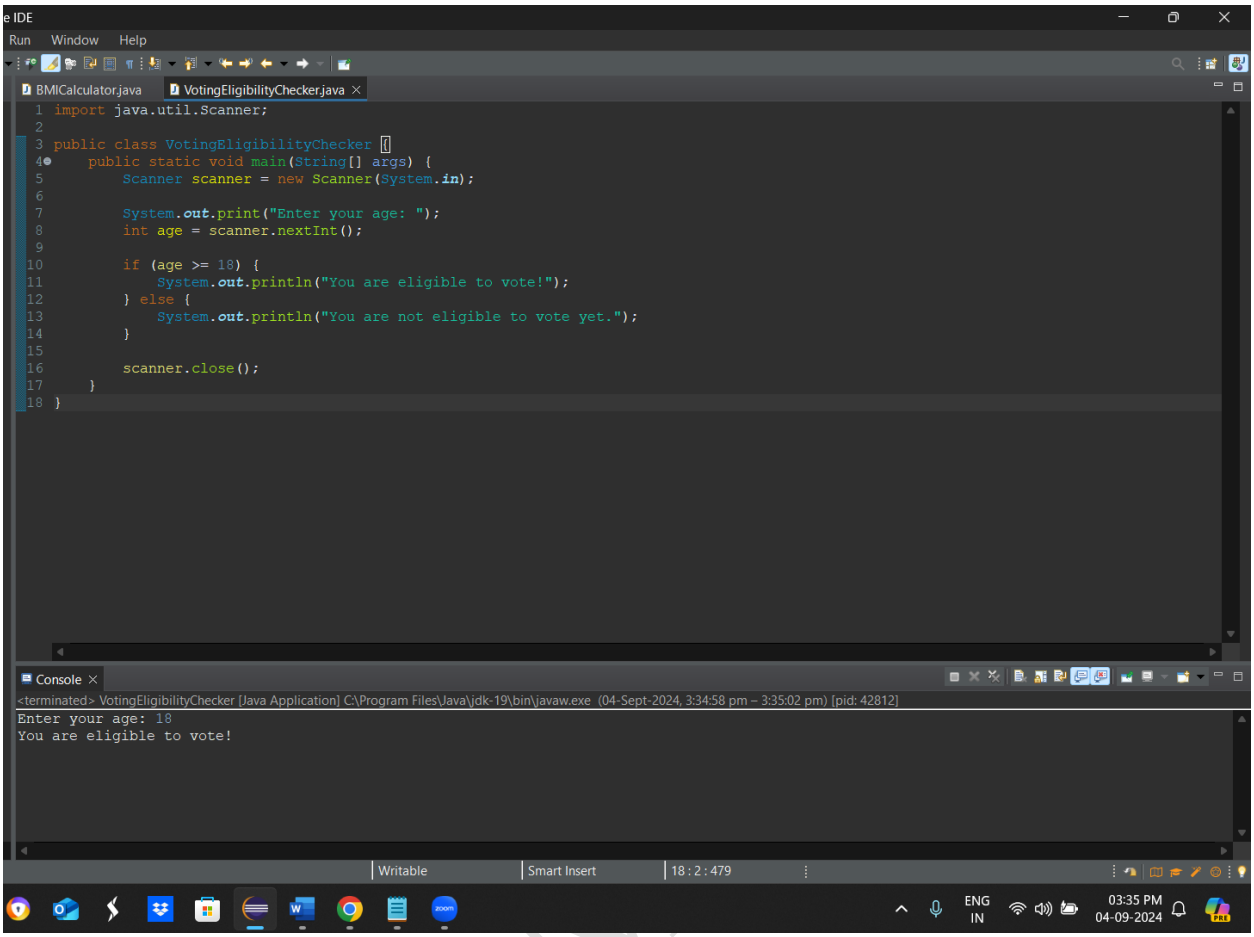
Using switch case



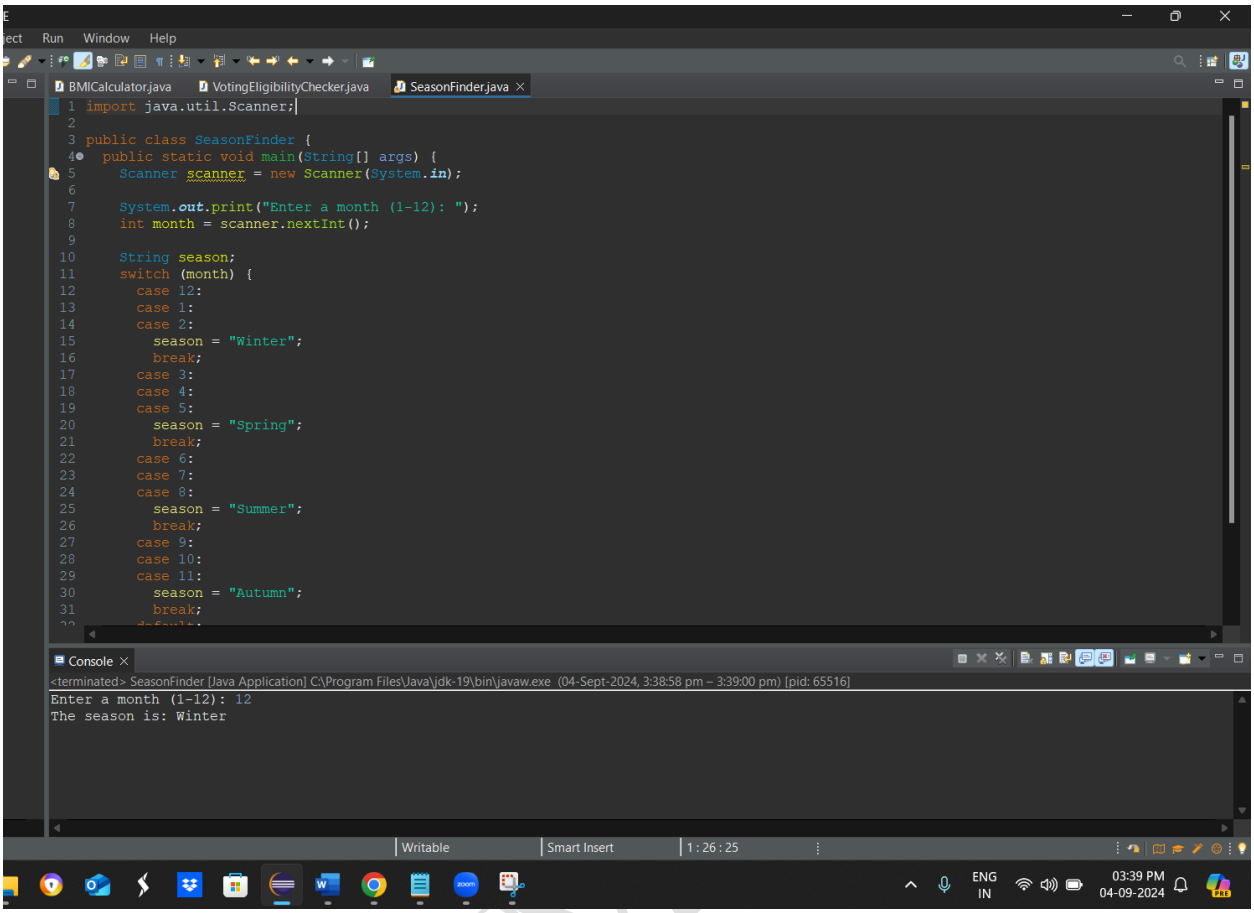
2)Implement a program that calculates the Body Mass Index (BMI) based on height and weight input using if-else to classify the BMI int categories (underweight, normal weight, overweight,etc).



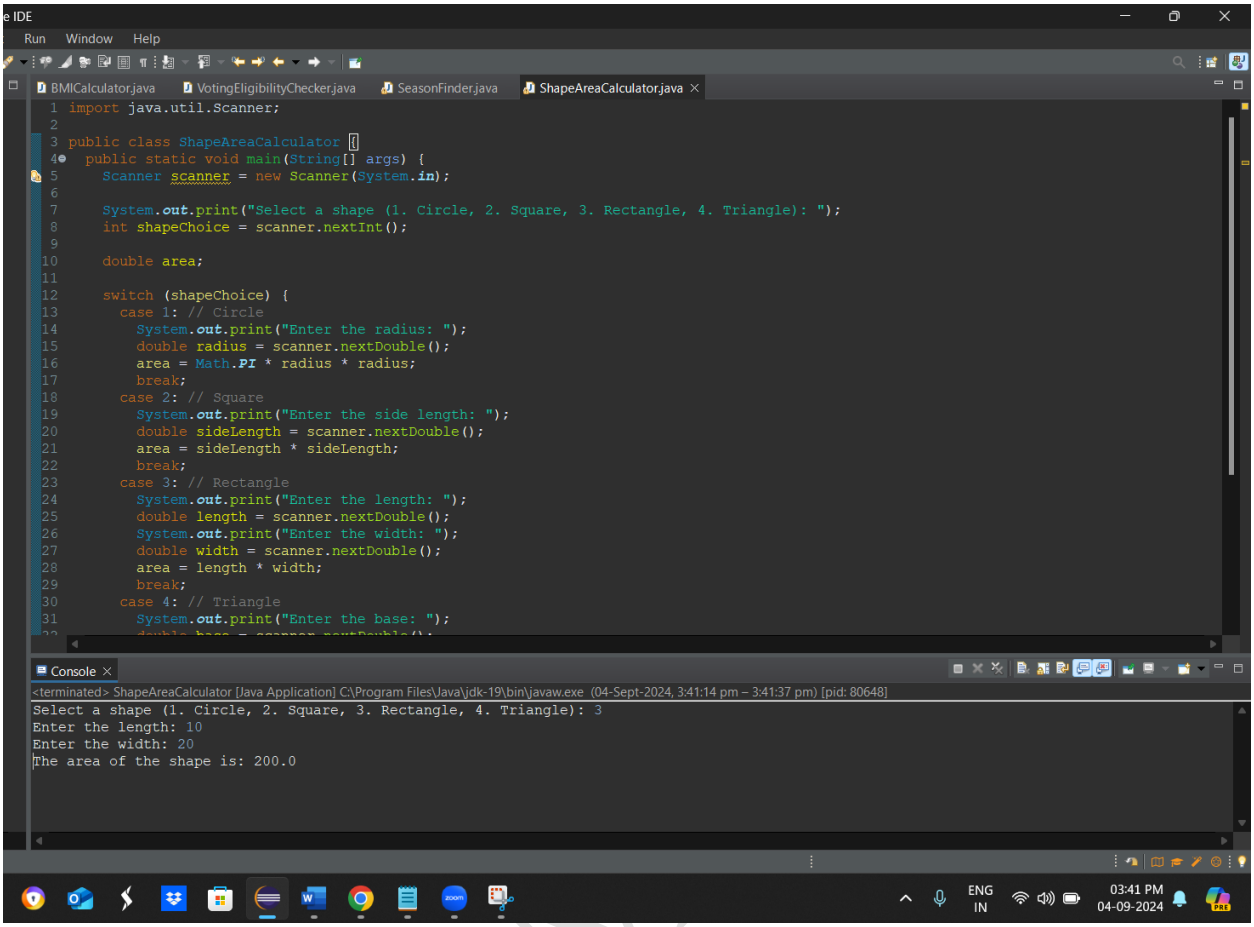
3)Write a program that checks if a person is eligible to vote based on their age.



4)Write a program that takes a month (1-12) and prints the corresponding season (Winter, Spring, Summer, Autumn) using a switch case



5)Write a program that allows the user to select a shape (Circle, Square, Rectangle, Triangle) and then calculates the area based on user-provided dimensions using a switch case.


e IDE
Run Window Help
BMICalculator.java
VotingEligibilityChecker.java
SeasonFinder.java
ShapeAreaCalculator.java
import java.util.Scanner;
public class ShapeAreaCalculator {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
System.out.print("Select a shape (1. Circle, 2. Square, 3. Rectangle, 4. Triangle): ");
int shapeChoice = scanner.nextInt();
double area;
switch (shapeChoice) {
case 1: // Circle
System.out.print("Enter the radius: ");
double radius = scanner.nextDouble();
area = Math.PI * radius * radius;
break;
case 2: // Square
System.out.print("Enter the side length: ");
double sideLength = scanner.nextDouble();
area = sideLength * sideLength;
break;
case 3: // Rectangle
System.out.print("Enter the length: ");
double length = scanner.nextDouble();
System.out.print("Enter the width: ");
double width = scanner.nextDouble();
area = length * width;
break;
case 4: // Triangle
System.out.print("Enter the base: ");
Console
<terminated> ShapeAreaCalculator [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (04-Sept-2024, 3:41:14 pm – 3:41:37 pm) [pid: 80648]
Select a shape (1. Circle, 2. Square, 3. Rectangle, 4. Triangle): 3
Enter the length: 10
Enter the width: 20
The area of the shape is: 200.0
ENG
IN
03:41 PM
04-09-2024