Task 1 :- SIMPLE CALCULATOR APPLICATION

PROGRAM :-

Import java.util.Scanner;

Public class CalculatorApp {

Public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println(“Welcome to the Calculator App!”);

System.out.print(“Enter the first number: “);

Double num1 = scanner.nextDouble();

System.out.print(“Enter the second number: “);

Double num2 = scanner.nextDouble();

System.out.println(“Choose an operation:”);

System.out.println(“1. Addition (+)”);

System.out.println(“2. Subtraction (-)”);

System.out.println(“3. Multiplication (\*)”);

System.out.println(“4. Division (/)”);

System.out.print(“Enter the operation number: “);

Int operation = scanner.nextInt();

Double result = 0;

Switch (operation) {

Case 1:

Result = num1 + num2;

Break;

Case 2:

Result = num1 – num2;

Break;

Case 3:

Result = num1 \* num2;

Break;

Case 4:

If (num2 != 0) {

Result = num1 / num2;

} else {

System.out.println(“Error: Division by zero is not allowed.”);

Return;

}

Break;

Default:

System.out.println(“Error: Invalid operation.”);

Return;

}

System.out.println(“Result: “ + result);

}

}

Task 2 :- NUMBER GUESSING GAME

PROGRAM :-

Import java.util.Random;

Import java.util.Scanner;

Public class NumberGuessingGame {

Public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

Random random = new Random();

Int lowerBound = 1;

Int upperBound = 100;

Int randomNumber = random.nextInt(upperBound – lowerBound + 1) + lowerBound;

Int userGuess;

Int attempts = 0;

System.out.println(“Welcome to the Number Guessing Game!”);

System.out.println(“I have selected a number between “ + lowerBound + “ and “ + upperBound + “. Try to guess it.”);

Do {

System.out.print(“Enter your guess: “);

userGuess = scanner.nextInt();

attempts++;

if (userGuess < randomNumber) {

System.out.println(“Too low! Try again.”);

} else if (userGuess > randomNumber) {

System.out.println(“Too high! Try again.”);

} else { System.out.println(“Congratulations! You guessed the number in “ + attempts + “ attempts.”);

}

} while (userGuess != randomNumber);

}

}