TASK1:-

Number GAME

import java.util.Scanner;

public class NumberGuessingGame {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

int maxAttempts = 5;

int score = 0;

while (true) {

int randomNum = (int) (Math.random() \* 100) + 1;

int attempts = 0;

System.out.println("Let's play a number guessing game! I'm thinking of a number between 1 and 100.");

while (attempts < maxAttempts) {

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

int guess = scanner.nextInt();

attempts++;

if (guess == randomNum) {

System.out.println("Congratulations! You guessed the number in " + attempts + " attempts.");

score++;

break;

} else if (guess < randomNum) {

System.out.println("Your guess is too low.");

} else {

System.out.println("Your guess is too high.");

}

}

if (attempts == maxAttempts) {

System.out.println("Sorry, you ran out of attempts. The number was " + randomNum);

}

System.out.print("Do you want to play again? (yes/no): ");

String playAgain = scanner.next();

if (!playAgain.equalsIgnoreCase("yes")) {

break;

}

}

System.out.println("Your final score is: " + score);

scanner.close();

}

}

Output:-

1] Let's play a number guessing game! I'm thinking of a number between 1 and 100.

Enter your guess: 6

Your guess is too low.

Enter your guess: 67

Your guess is too low.

Enter your guess: 88

Your guess is too high.

Enter your guess: 77

Your guess is too high.

Enter your guess: 67

Your guess is too low.

Sorry, you ran out of attempts. The number was 70

Do you want to play again? (yes/no): 6

2] Let's play a number guessing game! I'm thinking of a number between 1 and 100.

Enter your guess: 70

Your guess is too high.

Enter your guess: 60

Your guess is too high.

Enter your guess: 50

Your guess is too high.

Enter your guess: 40

Your guess is too low.

Enter your guess: 45

Congratulations! You guessed the number in 5 attempts.

Sorry, you ran out of attempts. The number was 45

Do you want to play again? (yes/no):