Encryptix Task 1

***Number Game***

import java.util.Random;

import java.util.Scanner;

public class NumberGame {

private static final int Max\_Attempts = 7;

private static final int Lower\_Bound = 1;

private static final int Upper\_Bound = 100;

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Random Rd = new Random();

int TRounds = 0;

int TWins = 0;

boolean playAgain = true;

while (playAgain) {

int NumToGuess = GenerateRanNum(Rd, Lower\_Bound, Upper\_Bound);

int AttemptsLeft = Max\_Attempts;

boolean GuessedCorrectly = false;

System.out.println("A new number between " + Lower\_Bound + " and " + Upper\_Bound + " has been generated.");

while (AttemptsLeft > 0 && !GuessedCorrectly) {

System.out.println("You have " + AttemptsLeft + " attempts left. Enter your guess:");

int UserGuess = getUserGuess(sc);

if (UserGuess == NumToGuess) {

System.out.println("Congratulations! You've guessed the correct number!");

GuessedCorrectly = true;

} else if (UserGuess < NumToGuess) {

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

} else {

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

}

AttemptsLeft--;

}

if (!GuessedCorrectly) {

System.out.println("Sorry, you've run out of attempts. The correct number was: " + NumToGuess);

} else {

TWins++;

}

TRounds++;

System.out.println("Your current score: " + TWins + " Wins out of " + TRounds + " Rounds.");

System.out.println("Would you like to play another round? (yes/no)");

String response = sc.next().toLowerCase();

if (!response.equals("yes")) {

playAgain = false;

}

}

System.out.println("Thanks for playing! Final score: " + TWins + " Wins out of " + TRounds + " Rounds.");

sc.close();

}

private static int GenerateRanNum(Random Rd, int lowerBound, int upperBound) {

return Rd.nextInt(upperBound - lowerBound + 1) + lowerBound;

}

private static int getUserGuess(Scanner sc) {

while (!sc.hasNextInt()) {

System.out.println("Invalid input. Please enter a number.");

sc.next();

}

return sc.nextInt();

}

}