import java.util.Scanner;

import java.util.Random;

class Game {

int systemInput;

int userInput;

int noOfGuesses = 0;

Game() {

Random random = new Random();

this.systemInput = random.nextInt(100) + 1;

}

public boolean takeUserInput() {

if (noOfGuesses < 10) {

System.out.print("Guess the number : ");

this.userInput = GuessTheNumber.takeIntegerInput(100);

noOfGuesses++;

return false;

} else {

System.out.println("Number of attempts finished...Better luck next time\n");

return true;

}

}

public boolean isCorrectGuess() {

if (systemInput == userInput) {

System.out.println("Congratulations, you guess the number " + systemInput +

" in " + noOfGuesses + " guesses");

switch (noOfGuesses) {

case 1:

System.out.println("Your score is 100");

break;

case 2:

System.out.println("Your score is 90");

break;

case 3:

System.out.println("Your score is 80");

break;

case 4:

System.out.println("Your score is 70");

break;

case 5:

System.out.println("Your score is 60");

break;

case 6:

System.out.println("Your score is 50");

break;

case 7:

System.out.println("Your score is 40");

break;

case 8:

System.out.println("Your score is 30");

break;

case 9:

System.out.println("Your score is 20");

break;

case 10:

System.out.println("Your score is 10");

break;

}

System.out.println();

return true;

} else if (noOfGuesses < 10 && userInput > systemInput) {

if (userInput - systemInput > 10) {

System.out.println("Too High");

} else {

System.out.println("Little High");

}

} else if (noOfGuesses < 10 && userInput < systemInput) {

if (systemInput - userInput > 10) {

System.out.println("Too low");

} else {

System.out.println("Little low");

}

}

return false;

}

}

public class GuessTheNumber {

public static int takeIntegerInput(int limit) {

Scanner sc = new Scanner(System.in);

int input;

while (true) {

System.out.print("Enter a number between 1 and " + limit + ": ");

if (sc.hasNextInt()) {

input = sc.nextInt();

if (input >= 1 && input <= limit) {

return input;

}

} else {

sc.next();

}

System.out.println("Invalid input. Please try again.");

}

}

public static void main(String[] args) {

System.out.println("1. Start the Game \n2. Exit");

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

int choice = takeIntegerInput(2);

int nextRound = 1;

int noOfRound = 0;

if (choice == 1) {

while (nextRound == 1) {

Game game = new Game();

boolean isMatched = false;

boolean isLimitCross = false;

System.out.println("\nRound " + ++noOfRound + " starts...");

while (!isMatched && !isLimitCross) {

isLimitCross = game.takeUserInput();

isMatched = game.isCorrectGuess();

}

System.out.println("1. Next Round \n2. Exit");

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

nextRound = takeIntegerInput(2);

if (nextRound != 1) {

System.exit(0);

}

}

} else {

System.exit(0);

}

}

}