import java.util.\*;

public class RandomGame1 {

public static void main(String[] args) {

playGame();

}

public static void playGame(){

Random rand = new Random();

Scanner keyboard = new Scanner(System.in);

int randomNumber = rand.nextInt(100)+1, userGuess = -1, totalGuesses = 0;

System.out.println("I have a secret number; can you guess it?");

while (randomNumber != userGuess){

System.out.print("Guess a number from 1 - 100: ");

userGuess = keyboard.nextInt();

totalGuesses++;

if (userGuess > randomNumber){

System.out.println("Too High, try again.");

}else if(userGuess < randomNumber){

System.out.println("Too Low, try again.");

}

}

System.out.println("It took " + totalGuesses + " tries to win: Game Over!");

keyboard.close();

}

}

import java.util.\*;

import javax.swing.\*;

public class RandomGame2 {

public static final int MESSAGE\_TYPE = JOptionPane.INFORMATION\_MESSAGE;

public static void main(String[] args) {

playGame();

}

public static void playGame(){

Random rand = new Random();

int randomNumber = rand.nextInt(100)+1, userGuess = -1, totalGuesses = 0;

while (randomNumber != userGuess){

String inputString = JOptionPane.showInputDialog("Guess a number 1-100: ");

userGuess = Integer.parseInt(inputString);

totalGuesses++;

if (userGuess > randomNumber){

JOptionPane.showMessageDialog(null,"Too High!","Wrong", MESSAGE\_TYPE);

}else if(userGuess < randomNumber){

JOptionPane.showMessageDialog(null,"Too low!","Wrong", MESSAGE\_TYPE);

}

}

JOptionPane.showMessageDialog(null,"It took " + totalGuesses

+ " tries to guess the number: " + randomNumber , "Game Over!", MESSAGE\_TYPE);

}

}

/\*\* Find integer and String palindromes \*/

import java.util.\*;

public class Palindrome {

public static void main(String[] args) {

System.out.println(isPalindrome(1345431)); // true

System.out.println(isPalindrome(2345433)); // false

System.out.println(isPalindrome("helleh")); // true

System.out.println(isPalindrome("helgeh")); // false

System.out.println(isPalindrome2(2345432)); // true

System.out.println(isPalindrome2(2345433)); // false

System.out.println(isPalindrome(234432)); // true

System.out.println(isPalindrome(234433)); // false

System.out.println(isPalindrome("helileh")); // true

System.out.println(isPalindrome("heligeh")); // false

System.out.println(isPalindrome2(234432)); // true

System.out.println(isPalindrome2(234433)); // false

}

public static boolean isPalindrome(int num) { /\*\* returns 'true' if (num) is a palindrome \*/

int digitCount = ("" + num).length(), divisor = (int)Math.pow(10, digitCount -1);

while( digitCount >= 2 ) {

if( (num % 10) != (num/divisor) ) {

return false;

}

num %= divisor; // throw away the first digit

num /= 10; // throw away the last digit

divisor /= 100; // reduce divisor by 2 digits

digitCount -= 2;

}

return true;

}

public static boolean isPalindrome(String s) { /\*\* returns 'true' if (s) is a palindrome \*/

int back = s.length() - 1, front = 0;

while( front < back ) {

if(s.charAt(front) != s.charAt(back)) {

return false;

}

front++;

back--;

}

return true;

}

/\*\* easier way to test for integer palindrome; convert to a string & use string method \*/

public static boolean isPalindrome2(int num) {

return isPalindrome("" + num);

}

// compare chars on each end and reduce string by deleting end chars

public static boolean isPalindrome3(String str) {

String temp = str.toLowerCase();

for(int front = 0, back = str.length() - 1; front < back; back-=2) {

if(temp.charAt(front) != temp.charAt(back))

return false;

temp = temp.substring(1, temp.length() - 1);

}

return true;

}

}

// allDigitsOdd, lab practice exercise

public class AllDigitsOdd {

public static void main(String[] args) {

int num = 337597;

System.out.println(allDigitsOdd(num));

}

// returns 'true' if all digits of num are odd

public static boolean allDigitsOdd(int num) {

int lastDigit;

while(num > 0) {

lastDigit = num % 10;

if(lastDigit % 2 == 0) {

return false;

}

num /= 10; // num = num / 10;

}

return true;

}

}

// Chapt. 3, exercise 13

import java.util.\*;

public class ReversePrint {

public static void main(String[] args) {

Scanner console = new Scanner(System.in);

System.out.print("Enter a string: --> ");

String s = console.nextLine();

printReverse(s);

}

public static void printReverse(String s) {

for(int i = s.length() - 1; i >= 0; i--)

System.out.print(s.charAt(i));

}

}