SOLUTION 1:

import java.util.Scanner;

public class FirstQuestion {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Input: ");

int N = scanner.nextInt();

int a = 0;

int b = 0;

int c = 550;

for (int i = 1; i < N; i++) {

int temp = a + b + c;

a = b;

b = c;

c = temp;

}

System.out.println("Output: " + c);

}

}

SOLUTION2:

import java.util.Random;

import java.util.Scanner;

public class SecondQuestion {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Enter a string: ");

String inputString = scanner.nextLine();

System.out.println("Input: ");

char inputChar = scanner.next().charAt(0);

long frequency = inputString.chars().filter(ch -> ch == inputChar).count();

System.out.println("Frequency of " + inputChar + " = " + frequency);

String[] words = inputString.split(" ");

StringBuilder finalString = new StringBuilder();

for (String word : words) {

finalString.append(word.substring(0, 1).toUpperCase()).append(word.substring(1)).append(" ");

}

String specialCharacters = "!@#$%^&\*()";

Random rand = new Random();

char randomSpecialCharacter = specialCharacters.charAt(rand.nextInt(specialCharacters.length()));

finalString.append(randomSpecialCharacter);

System.out.println("Final string = " + finalString);

}

}

SOLUTION 3:

import java.util.Scanner;

public class ThreeQuestion {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Input: ");

String inputString = scanner.nextLine();

System.out.println("String to be replaced: ");

String stringToBeReplaced = scanner.nextLine();

System.out.println("String to be replaced with: ");

String replacementString = scanner.nextLine();

String outputString = inputString.replace(stringToBeReplaced, replacementString);

StringBuilder numericalRepresentation = new StringBuilder();

for (char c : replacementString.toCharArray()) {

if (Character.isLetter(c)) {

int charValue = Character.toLowerCase(c) - 'a' + 1;

numericalRepresentation.append(charValue);

}

}

outputString += " " + numericalRepresentation;

System.out.println("Output: " + outputString);

}

}