JAVA ASSIGNMENTS 1-9

1st assignment code :

package com.company;

public class Main {

public static void main(String[] args) {

int number = 153, originalNumber, remainder, result = 0;

originalNumber = number;

while (originalNumber != 0)

{

remainder = originalNumber % 10;

result += Math.pow(remainder, 3);

originalNumber /= 10;

}

if(result == number)

System.out.println(number + " is an Armstrong number.");

else

System.out.println(number + " is not an Armstrong number.");

}

}

2nd Assignemnt:

package com.company;

public class Main {

public static void main(String[] args) {

int low = 100, high = 999;

for(int number = low + 1; number < high; ++number) {

int digits = 0;

int result = 0;

int originalNumber = number;

while (originalNumber != 0) {

originalNumber /= 10;

++digits;

}

originalNumber = number;

while (originalNumber != 0) {

int remainder = originalNumber % 10;

result += Math.pow(remainder, digits);

originalNumber /= 10;

}

if (result == number) {

System.out.print(number + " ");

}

}

}

}

3rd Asssignment:

package com.company;

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

System.out.println("Enter the principal:");

double principal = input.nextDouble();

System.out.println("Enter the rate: ");

double rate =input.nextDouble();

System.out.println("Enter the duration:");

double time = input.nextDouble();

double simpleInterest = (principal\*time\*rate)/100;

System.out.println("Enter the number of time interest is compounded");

double number =input.nextDouble();

double compoundInterest = principal \* (Math.pow((1+ rate/100),(time \* number)))-principal;

System.out.println("Simple interest is :"+simpleInterest);

System.out.println("Compound interest is: "+compoundInterest);

}

}

4th Assignemmt:

import java.util.Scanner;

public class Marks {

public static void main(String[] args)

System.out.println("Enter the 3 marks");

Scanner input = new Scanner(System.in);

int mark1 = input.nextInt();

int mark2 = input.nextInt();

int mark3 = input.nextInt();

if (mark1 > 60 && mark2 > 60 && mark3 > 60) {

System.out.println("hey you passed the exam");

}

else if((mark1 > 60 && mark2 > 60) || (mark2 > 60 && mark3 > 60) || (mark3 > 60 && mark1 > 60)) {

System.out.println("Promoted");

}

else

{

System.out.println("failed");

}

}

}

5th Assignment :

import java.util.Scanner;

public class IT {

public static void main(String[] args) {

Scanner input =new Scanner(System.in);

System.out.println("Enter the income range");

int ctc = input.nextInt();

int tax=0;

if (ctc>=0 && ctc<=180000){

System.out.println("tax % is 0");

System.out.println("Nil");

}

else if(ctc>=181001 &&ctc<=300000){

tax = (ctc\*10)/100;

System.out.println("tax % is 10");

System.out.println(tax);

}

else if(ctc>=300001 && ctc<= 500000){

tax = (ctc\*20)/100;

System.out.println("tax % is 20");

System.out.println(tax);

}

else if(ctc>=500001 && ctc<=1000000){

tax =(ctc\*30)/100;

System.out.println("tax % is 30");

System.out.println(tax);

}

}

}

6th Assignment:

import java.util.Scanner;

public class assignment6 {

public static void main(String[] args) {

String userId = "Cg\_training";

String password = "training";

Scanner input = new Scanner(System.in);

for (int i=3;i>=1;i--) {

System.out.print("Enter user id:");

String user\_Id1 = input.nextLine();

System.out.print("Enter user password:");

String password1 = input.nextLine();

if ((userId.matches(user\_Id1)) && (password.matches(password1))) {

System.out.println("welcome " + userId);

break;

}

else {

System.out.println("login failed attempts remaining " +(i-1) );

System.out.println("");

if (i==1){

System.out.println("Contact Admin");

}

}

}

}

}

7th Assignment :

import java.util.Scanner;

public class assignment7 {

public static void main(String[] args) {

int[] number = {5, 12, 14, 6, 78, 19, 1, 23, 26, 35, 37, 7, 52, 86, 47};

int flag =0;

System.out.println("Enter a number to Search");

Scanner input = new Scanner(System.in);

int num = input.nextInt();

for (int i = 0; i < number.length; i++) {

if (number[i] == num) {

System.out.println("Match found at position " +i);

flag=1;

}

}

if (flag ==0){

System.out.println("Match not found");

}

}

}

8th Assignment:

public class assignment8 {

public static void bubbleSort ( int number[]){

int n = number.length;

for (int i = 0; i < n - 1; i++) {

for (int j = 0; j < n - i - 1; j++) {

if (number[j] > number[j + 1]) {

int temp = number[j];

number[j] = number[j + 1];

number[j + 1] = temp;

}

}

}

}

public static void main(String[] args) {

int[] number = {5, 12, 14, 6, 78, 19, 1, 23, 26, 35, 37, 7, 52, 86, 47};

System.out.println("Array before sorting");

for (int i=0;i<number.length;i++){

System.out.print(number[i]+" ");

}

System.out.println();

bubblrSort(number);

System.out.println("Array after bubble sort");

for(int i=0;i<number.length;i++)

System.out.print(number[i]+" ")

}

}

9th Assignment :

import java.util.Scanner;

class Grade

{

public static void main(String args[])

{

float a,b,c,avg;

Scanner s=new Scanner(System.in);

System.out.println("Enter the mark of three subs");

a=s.nextFloat();

b=s.nextFloat();

c=s.nextFloat();

avg=a+b+c/3;

if(avg>=80)

{

System.out.println("You are in A grade ");

}

else if(avg>=60 && avg<=80)

{

System.out.println("You are in B grade ");

}

else if(avg>=50 && avg<60)

{

System.out.println("You are in C grade ");

}

else

{

System.out.println("Fail ");

}

}

}