**ASSIGNMENT-1**

**package** gangadhar;

**public** **class** Armstrong {

**public** **static** **void** main(String[] args) {

**int** num=153,rem,sum=0, temp=num;

**while**(num>0)

{

rem=num%10;

num=num/10;

sum=sum+(rem\*rem\*rem);

}

System.***out***.println("Armstrong of num is :"+sum);

**if**(temp==sum)

{

System.***out***.println("your number is Armstrong number");

}

**else**

{

System.***out***.println("your number is not Armstrong number");

}

}

}

**package** gangadhar;

**public** **class** Armstrongnumber {

**public** **static** **void** main(String[] args) {

**int** num,rem,sum=0;

**for**(**int** i=100;i<=999;i++)

{

num=i;

**while**(num>0)

{

rem=num%10;

num=num/10;

sum=sum+rem\*rem\*rem;

}

**if**(i==sum)

{

System.***out***.println(i);

}

sum=0;

}

}

}

**package** gangadhar;

**import** java.util.Scanner;

**public** **class** Compoundintrest {

**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 interecompounded");

**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);

}

}

**package** gangadhar;

**import** java.util.Scanner;

**public** **class** SubjectMarks {

**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("Passed the Exams");

}

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

System.***out***.println("Promoted");

}

**else**

{

System.***out***.println("failed");

}

}

}

**package** gangadhar;

**import** java.util.Scanner;

**public** **class** IncomeTax {

**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);

}

}

}

**package** gangadhar;

**import** java.util.Scanner;

**public** **class** Cui {

**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");

}

}

}

}

}

**package** gangadhar;

**import** java.util.Scanner;

**public** **class** Array {

**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");

}

}

}

**package** gangadhar;

**public** **class** BubbleSort {

**public** **static** **void** main(String[] args) {

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

**int** temp;

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

{

**for** (**int** j=0;j<a.length-1;j++)

{

**if**(a[j]>a[j+1])

{

temp=a[j];

a[j]=a[j+1];

a[j+1]=temp;

}

}

}

**for**(**int** k=0;k<a.length;k++)

System.***out***.println(a[k]);

}

}