**ASSIGNMENT 6: LOOPS**

**1 .Write a program to print a number from 1 to 10.**

**package** loops;

**public** **class** print {

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

**for**(**int** i=1;i<=10;i++)

{

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

}

// **TODO** Auto-generated method stub

}

}

**Output:**

1

2

3

4

5

6

7

8

9

10

2 .**Write a program to print sum of first 10 natural numbers.**

**package** loops;

**public** **class** sumof10 {

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

**int** sum=0;

**for**(**int** i=1;i<=10;i++)

{

sum=sum+i;

}

// **TODO** Auto-generated method stub

System.***out***.println("sum of first 10 natural numbers is = "+sum);

}

}

**Output:**

sum of first 10 natural numbers is = 55

**3 .Write a program that prompts the user to input a positive integer.It should then print the multiplication table of that number.**

**package** loops;

**import** java.util.Scanner;

**public** **class** tables {

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

System.***out***.println("enter the number");

**int** n;

**int** i;

Scanner sc=**new** Scanner(System.***in***);

i=sc.nextInt();

**for**( n=1;n<=10;n++)

{

System.***out***.println(+i+" x "+n+" = "+i\*n);

}

// **TODO** Auto-generated method stub

}

}

**Output:**

enter the number

10

10 x 1 = 10

10 x 2 = 20

10 x 3 = 30

10 x 4 = 40

10 x 5 = 50

10 x 6 = 60

10 x 7 = 70

10 x 8 = 80

10 x 9 = 90

10 x 10 = 100

**4 .Write a program to find factorial of number enterd through keyboard.**

**package** loops;

**import** java.util.Scanner;

**public** **class** fact {

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

System.***out***.println("enter the number to get factorial");

**int** n;

**int** i=1;

Scanner sc=**new** Scanner(System.***in***);

n=sc.nextInt();

**while**(n>0)

{

i=i\*n;

n=n-1;

}

System.***out***.println("Factorial = "+i );

}

}

**Output:**

enter the number to get factorial

5

Factorial = 120

**5 .Write a program to find the value of one number raised to the power of another.**

**package** loops;

**import** java.util.Scanner;

**public** **class** power {

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

**int** a;

System.***out***.println("enter value of a");

Scanner sc=**new** Scanner(System.***in***);

a=sc.nextInt();

System.***out***.println("enter value of b");

Scanner sc1=**new** Scanner(System.***in***);

**int** b=sc1.nextInt();

**int** m=a,n=b;

**while**(n>1)

{

m=m\*a;

n--;

}

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

// **TODO** Auto-generated method stub

}

}

**Output** :

enter value of a

5

enter value of b

2

25

**6 .Write a program to reverse the number.**

**package loops;**

**import** java.util.Scanner;

**public** **class** reverse {

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

**int** n;

**int** r;

//int reverse=0;

System.***out***.println("enter number to be reversed");

Scanner sc=**new** Scanner(System.***in***);

n=sc.nextInt();

**while**(n>0)

{

r=n%10;

// reverse=reverse\*10+r;

n=n/10;

System.***out***.print(r);

}

}

}

**Output:**

enter number to be reversed

34564

46543

**7 .Write a program that reads a set of integer,and then prints**

**the sum of even and odd integers.**

**package** loops;

**import** java.util.Scanner;

**public** **class** oddeven {

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

Scanner sc=**new** Scanner(System.***in***);

**int** number;

**int** number2;

**int** even=0;

**int** odd=0;

System.***out***.println("enter the range from");

number=sc.nextInt();

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

number2=sc.nextInt();

**for**(**int** i=number;i<=number2;i++)

**if**(number%2==0)

{

even=even+number;

}

**else**

{

odd=odd+number;

}

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

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

}

}

**8.Write a program to check whether the number is prime or not.**

**package** loops;

**import** java.util.Scanner;

**public** **class** prime {

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

Scanner sc=**new** Scanner(System.***in***);

**int** number;

System.***out***.println("enter the positive integer");

number=sc.nextInt();

**boolean** flag=**true**;

**for**(**int** i=2;i<number;i++)

{

**if**(number%i==0)

{

flag=**false**;

**break**;

}

}

**if**(flag && number>1)

{

System.***out***.println("number is prime");

}

**else**

{

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

}

}

}

**Output1:**

enter the positive integer

5

number is prime

**output2:**

enter the positive integer

8

number is not prime

**9 .Write a program to find a hcf of give two numbers.**

**package** loops;

**import** java.util.Scanner;

**public** **class** hcf {

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

Scanner sc=**new** Scanner(System.***in***);

**int** dividend,divisor;

**int** reminder,hcf=0;

System.***out***.println("Enter the first number");

dividend=sc.nextInt();

System.***out***.println("Enter the second number");

divisor=sc.nextInt();

**do**

{

reminder=dividend%divisor;

**if**(reminder==0)

{

hcf=divisor;

}

**else**

{

dividend=divisor;

divisor=reminder;

}

}**while**(reminder!=0);

System.***out***.println("hcf: "+hcf);

}

}

**Output:**

Enter the first number

88

Enter the second number

56

hcf: 8

**10 .Write a do while loop that asks the user to enter two numbers.The numbers should be added and the sum displayed.The loop should ask the user to perform the oeration again.If,so,the loop should repeat, otherwise it should terminate.**

**package** loops;

**import** java.util.Scanner;

**public** **class** doloop {

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

{

**char** ch;

Scanner sc=**new** Scanner(System.***in***);

**do**

{

System.***out***.println("enter a");

**int** a;

Scanner sc1=**new** Scanner(System.***in***);

a=sc1.nextInt();

System.***out***.println("enter b");

**int** b;

Scanner sc2=**new** Scanner(System.***in***);

b=sc2.nextInt();

**int** sum=a+b;

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

System.***out***.println("doyou want tocontinue if yes press y");

ch=sc.next().charAt(0);

}

**while**(ch=='y');

}

}

Output:

enter a

5

enter b

5

10

doyou want tocontinue if yes press y

**11 .Write a program to check whether a given number is positive ,negative,or zero.**

**package** loops;

**import** java.util.Scanner;

**public** **class** positive {

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

**char** ch;

**do**

{

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

**int** num;

Scanner sc=**new** Scanner(System.***in***);

num=sc.nextInt();

**if**(num>0)

{

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

}

**else** **if**(num<0)

{

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

}

**else** **if**(num==0)

{

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

}

// **TODO** Auto-generated method stub

System.***out***.println("continue y");

ch=sc.next().charAt(0);

}

**while**(ch=='y');

}

}

**Output:**

enter

5

positive

continue y

y

enter

-5

negt

continue y

y

enter

0

zero

continue y

**12 .Write a program to enter the numbers till user wants and at the end the program should display the largest and smallest number created.**

**package** loops;

**import** java.util.Scanner;

**public** **class** largesmall {

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

Scanner sc=**new** Scanner(System.***in***);

**int** number;

**int** max=Integer.***MIN\_VALUE***;

**int** min=Integer.***MAX\_VALUE***;

**char** choice;

**do**

{

System.***out***.println("enter the number");

number=sc.nextInt();

**if**(number>max)

{

max=number;

}

**if**(number<min)

{

min=number;

}

System.***out***.println("do you wnt to continue if yes press y");

choice=sc.next().charAt(0);

}**while**(choice=='y');

System.***out***.println("larg num = "+max);

System.***out***.println("min num = "+min);

}

}

**Output:**

enter the number

5

do you wnt to continue if yes press y

y

enter the number

7

do you wnt to continue if yes press y

y

enter the number

9

do you wnt to continue if yes press y

n

larg num = 9

min num = 5