**-------------------DAY 1 ASSIGNMENT-----------**

1:write program to test Hello World.

**public** **class** Hello {

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

System.***out***.println("Hello World!!!");

}

}

Output:

Hello World!!!

2:Write a program to adddition of two numbers also addition of two characters.

**import** java.util.Scanner;

**public** **class** Addition {

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

**int** no1,no2,result;

String s1,s2;

**char** ch1,ch2;

String res;

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

System.***out***.println("Enter the 1st No");

no1=sc.nextInt();

System.***out***.println("Enter the 2nd no");

no2=sc.nextInt();

result=no1+no2;

System.***out***.println("Addition is="+result);

System.***out***.println("Enter the character");

ch1='a';

ch2='h';

res=Character.*toString*(ch1)+Character.*toString*(ch2);

System.***out***.println("Addition of character is="+res);

}

}

Output:

Enter the 1st No

10

Enter the 2nd no

20

Addition is=30

Enter the character

Addition of character is=ah

3:Find the compound amount and compound interest on the principal Rs.20,000 borrowed at 6% compounded annually for 3 years.

**import** java.util.Scanner;

**public** **class** CompoundInterest {

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

**int** principle,i=0;

**float** time,rate,r=0,t=1;

**double** amount=0,ci;

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

System.***out***.println("Enter the principle");

principle=sc.nextInt();

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

rate=sc.nextInt();

System.***out***.println("Enter time");

time=sc.nextFloat();

r=1+(rate/100);

**while**(i<time)

{

t=t\*r;

i++;

}

amount=principle \* t;

ci=amount-principle;

System.***out***.println("Amount is="+amount);

System.***out***.println("Compound Interest ="+ci);

}

}

Output

Enter the principle

20000

Enter the rate

6

Enter time

3

Amount is=23820.31640625

Compound Interest =3820.31640625

4:Write a program to calculate power of a number.

import java.util.Scanner;

import java.util.function.IntConsumer;

public class PowerNo {

public static void main(String[] args) {

int no,pow,i,result=1;

System.out.println("Enter the no");

Scanner sc=new Scanner(System.in);

no=sc.nextInt();

System.out.println("Enter the power");

pow=sc.nextInt();

i=0;

while(i<pow)

{

result=result\*no;

i++;

}

System.out.println(result);

}

}

Output:

Enter the no

2

Enter the power

3

8

5:Write a program to swap two numbers.

**import** java.util.Scanner;

**public** **class** Swap {

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

**int** no1,no2;

System.***out***.println("Enter the 1st no");

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

no1=sc.nextInt();

System.***out***.println("Enter the 2 no");

no2=sc.nextInt();

System.***out***.println("Before swapping");

System.***out***.println("Value of no1="+no1+" "+"Values of No2="+no2);

**int** temp;

temp=no1;

no1=no2;

no2=temp;

System.***out***.println("After swapping");

System.***out***.println("Value of no1="+no1+" "+"Values of No2="+no2);

}

}

Output:

Enter the 1st no

10

Enter the 2 no

20

Before swapping

Value of no1=10 Values of No2=20

After swapping

Value of no1=20 Values of No2=10

6:Write a program to find factorial of a given number.

**import** java.util.Scanner;

**public** **class** Factorial {

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

**int** no,fact=1,i=0;

System.***out***.println("Enter the No");

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

no=sc.nextInt();

**for**(i=1;i<=no;i++)

{

fact=fact\*i;

}

System.***out***.println("Factorial of given no is="+fact);

}

}

Output:

Enter the No

5

Factorial of given no is=120

7:Write a program to find m to the power n

**import** java.util.Scanner;

**public** **class** MPowerN {

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

**int** m,n,i,result=1;

System.***out***.println("Enter the no");

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

m=sc.nextInt();

System.***out***.println("Enter the power");

n=sc.nextInt();

i=0;

**while**(i<n)

{

result=result\*m;

i++;

}

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

}

}

Output:

Enter the no

4

Enter the power

4

256

8:Check if number is a prime number or not.

**import** java.util.Scanner;

**public** **class** PrimeNo {

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

**int** no;

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

System.***out***.println("Enter the no");

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

no=sc.nextInt();

**if**(no==2)

{

System.***out***.println("It is prime no");

}

**for**(**int** i=2;i<no;i++)

{

**if**(no%i==0)

{

flag=**false**;

**break**;

}

}

**if**(flag==**true**)

{

System.***out***.println("It is Prime No");

}

**else**

{

System.***out***.println("No is not prime");

}

}

}

Output:

Enter the no

7

It is Prime No

9:Sum of series :

1+2+3+….+n

**import** java.util.Scanner;

**public** **class** SumOfSeries {

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

**int** fno=0,sno=1,next=0,no,i;

System.***out***.print("Enter the Number ");

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

no=sc.nextInt();

System.***out***.print(fno+" "+sno+" ");

**for**(i=2;i<no;i++)

{

next=fno+sno;

System.***out***.print(next+" ");

fno=sno;

sno=next;

}

}

}

Output:

Enter the Number 10

0 1 1 2 3 5 8 13 21 34

10:Check whether the number is palindrome or not?

**import** java.util.Scanner;

**public** **class** PalindromeNo {

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

**int** no,num,revno=0;

System.***out***.println("Enter the no");

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

no = sc.nextInt();

num=no;

**while**(no!=0)

{

**int** digit=no%10;

revno=revno\*10+digit;

no=no/10;

}

**if**(num==revno)

{

System.***out***.println("No is palindrome");

}

**else**

{

System.***out***.println("No is not palindrome");

}

}

}

Output:

Enter the no

545

No is palindrome

11:Write a program to find sum of all even and odd numbers between 1 to n.

**import** java.util.Scanner;

**public** **class** Oddeven {

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

**int** arr[]=**new** **int**[10],no,i,evensum=0,oddsum=0;

System.***out***.println("Enter the size of array");

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

no=sc.nextInt();

System.***out***.println("Enter the array elements");

**for**(i=0;i<no;i++)

{

arr[i]=sc.nextInt();

}

**for**(i=0;i<no;i++)

{

**if**(arr[i]%2==0)

{

evensum=evensum+arr[i];

}

**else**

{

oddsum=oddsum+arr[i];

}

}

System.***out***.println("The sum of Even No from 1 to N is"+evensum);

System.***out***.println("The sum of odd No from 1 to N is"+oddsum);

}

}

Output:

Enter the size of array

5

Enter the array elements

2

5

6

7

9

The sum of Even No from 1 to N is8

The sum of odd No from 1 to N is21

12: Write a program to enter a number and print its reverse.

**import** java.util.Scanner;

**public** **class** ReverseNo {

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

**int** no,num,revno=0;

System.***out***.println("Enter the no");

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

no = sc.nextInt();

num=no;

**while**(num>0)

{

**int** digit=num%10;

revno=revno\*10+digit;

num=num/10;

}

System.***out***.println("The reverse no is"+revno);

}

}

Output:

Enter the no

234

The reverse no is432

13:Write a program to print all Prime numbers between 1 to n

**import** java.util.Scanner;

**public** **class** Primenoarray {

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

**int** no,i;

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

System.***out***.println("Enter the size of array");

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

no=sc.nextInt();

**int**[] arr =**new** **int**[no];

System.***out***.println("Enter the array Elments");

**for**(i=0;i<no;i++)

{

arr[i]=sc.nextInt();

}

System.***out***.println("Prime no are");

**for**(i=0;i<no;i++)

{

**int** j=2;

**while**(j<arr[i])

{

**if**(arr[i]%j==0)

{

flag=**false**;

**break**;

}

j++;

}

**if**(flag==**true**)

{

System.***out***.println(arr[i]);

}

}

}

}

Output:

Enter the size of array

5

Enter the array Elments

1

3

4

5

6

Prime no are

1

3

14:Write a program to check entered number is Armstrong number or not.

**import** java.util.Scanner;

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

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

**int** no,digit,sum=0,num;

System.***out***.println("Enter the no");

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

num=sc.nextInt();

no=num;

**while**(no!=0)

{

digit=no%10;

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

no=no/10;

}

**if**(num==sum)

{

System.***out***.println("It is armstrong number");

}

**else**

{

System.***out***.println("It is not the armstrong no");

}

}

}

Output:

Enter the no

153

It is armstrong number

15:Write a program to find greatest of three numbers using nested if-else.

**import** java.util.Scanner;

**public** **class** NestedIfElse {

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

**int** no1,no2,no3;

System.***out***.println("Enter the nos");

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

no1=sc.nextInt();

no2=sc.nextInt();

no3=sc.nextInt();

**if**(no1>=no2)

{

**if**(no1>=no3)

{

System.***out***.println("No1 is greater");

}

**else**

{

System.***out***.println("No3 is greater");

}

}

**else** **if**(no2>no3)

{

System.***out***.println("No2 is greater");

}

**else**

{

System.***out***.println("No3 is greater");

}

}

}

Output:

Enter the nos

34

23

56

No3 is greater

**--------------DAY 2 ASSIGNMENT------------------**

1:Java program to print the following pattern on the console

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

**public** **class** Pattern {

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

**int** i,j;

**for**(i=1;i<=5;i++)

{

**for**(j=1;j<=i;j++)

{

System.***out***.print("\*"+" ");

}

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

}

}

}

Output:

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

2:Write a program which will accept student information like rollno,name,5 subject marks.calculate total and percentage.calculate grade..

per >75 grade :A

per<74 and >60 :B

per<59 :C

**import** java.util.Scanner;

**public** **class** StudentGrading {

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

**int** rollno,i,total=0;

**float** per=0;

**int**[] marks=**new** **int**[5];

String name;

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

System.***out***.println("Enter Rollno");

rollno=sc.nextInt();

sc.nextLine();

System.***out***.println("Enter name");

name=sc.nextLine();

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

**for**(i=0;i<5;i++)

{

marks[i]=sc.nextInt();

}

**for**(i=0;i<5;i++)

{

total=total+marks[i];

}

System.***out***.println("Total is"+total);

per=(total\*100)/500;

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

**if**(per>75)

{

System.***out***.println("Grade =A");

}

**else** **if**(per>60 && per<74)

{

System.***out***.println("Grade =B");

}

**else** **if**(per<59 && per>40)

{

System.***out***.println("Grade=C");

}

**else**

{

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

}

}

}

Output:

Enter Rollno

1024

Enter name

Bhagyashri

Enter the marks

78

89

87

65

78

Total is397

79.0

Grade =A

3:Write function to swap two numbers.

**import** java.util.Scanner;

**public** **class** SwapNo {

**public** **static** **void** swap(**int** no1,**int** no2)

{

**int** temp;

temp=no1;

no1=no2;

no2=temp;

System.***out***.println("After Swapping");

System.***out***.println("Values of no1="+no1+"Values of No2="+no2);

}

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

**int** no1,no2;

System.***out***.println("Enter the 1st no");

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

no1=sc.nextInt();

System.***out***.println("Enter the 2 no");

no2=sc.nextInt();

*swap*(no1,no2);

}

}

Output:

Enter the 1st no

10

Enter the 2 no

40

After Swapping

Values of no1=40Values of No2=10

4:Write functions for making addition of diffrent types(use FunctionOverloading);

**import** java.util.Scanner;

**public** **class** FunctionOverload {

**public** **static** **void** add()

{

**int** no1=10,no2=20,result;

result=no1+no2;

System.***out***.println("Addition="+result);

}

**public** **static** **int** add(**int** a,**int** b)

{

**return** a+b;

}

**public** **static** **void** add(**int** p,**float** q,**int** r)

{

**float** result;

result=p+q+r;

System.***out***.println("Addition is"+result);

}

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

**int** a,b;

System.***out***.println("Enter the values of a and b");

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

a=sc.nextInt();

b=sc.nextInt();

*add*();

**int** c=*add*(a,b);

System.***out***.println("Addition ="+c);

*add*(20,20.5f,10);

}

}

Output:

Enter the values of a and b

10

20

Addition=30

Addition =30

Addition is50.5

5:Write a program to accept array of 5 numbers and display it.

**import** java.util.Scanner;

**public** **class** AcceptArray {

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

**int** n,i;

System.***out***.println("Enter the size of array");

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

n=sc.nextInt();

**int**[] arr=**new** **int**[n];

System.***out***.println("Enter the array elements");

**for**(i=0;i<n;i++)

{

arr[i]=sc.nextInt();

}

System.***out***.println("Array Elements are=");

**for**(i=0;i<n;i++)

{

System.***out***.println(arr[i]);

}

}

}

Output:

Enter the size of array

5

Enter the array elements

10

20

30

40

50

Array Elements are=

10

20

30

40

50

6:Write a program which read aaray of 5 elements and print reverse array.

**import** java.util.Scanner;

**public** **class** ReverseArray {

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

**int** n,i,last;

System.***out***.println("Enter the size of array");

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

n=sc.nextInt();

**int**[] arr=**new** **int**[n];

System.***out***.println("Enter the array elements");

**for**(i=0;i<n;i++)

{

arr[i]=sc.nextInt();

}

System.***out***.println("Array Elements are=");

**for**(i=0;i<n;i++)

{

System.***out***.println(arr[i]);

}

last=arr.length-1;

System.***out***.println("Reverse array elements are");

**for**(i=last;i>=0;i--)

{

System.***out***.println(arr[i]);

}

}

}

Output:

Enter the size of array

5

Enter the array elements

10

20

30

40

50

Array Elements are=

10

20

30

40

50

Reverse array elements are

50

40

30

20

10

7:Write a Java program , accept array ,accept number from user and find the index of number in array if present else show message not exist.

**import** java.util.Scanner;

**public** **class** Findindex {

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

**int** n, i, last, no;

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

System.***out***.println("Enter the size of array");

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

n = sc.nextInt();

**int**[] arr = **new** **int**[n];

System.***out***.println("Enter the array elements");

**for** (i = 0; i < n; i++) {

arr[i] = sc.nextInt();

}

System.***out***.println("Array Elements are=");

**for** (i = 0; i < n; i++) {

System.***out***.println(arr[i]);

}

System.***out***.println("Enter the no whose index you want");

no = sc.nextInt();

i = 0;

**while** (i < n) {

**if** (arr[i] == no) {

flag=**false**;

**break**;

}

i++;

}

**if**(flag==**false**)

{

System.***out***.println("Index of No" + i);

}

**else**

{

System.***out***.println("No is not present in the array");

}

}

}

Output:

Enter the size of array

5

Enter the array elements

2

3

4

5

6

Array Elements are=

2

3

4

5

6

Enter the no whose index you want

5

Index of No3

8:Write a Java program to find the maximum and minimum value of an array.

**import** java.util.Scanner;

**public** **class** MinMaxValue {

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

**int** n,i,max,temp,min;

System.***out***.println("Enter the size of array");

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

n=sc.nextInt();

**int**[] arr=**new** **int**[n];

System.***out***.println("Enter the array elements");

**for**(i=0;i<n;i++)

{

arr[i]=sc.nextInt();

}

max=arr[0];

**for**(i=0;i<n;i++)

{

**if**(max<arr[i])

{

temp=max;

max=arr[i];

arr[i]=temp;

}

}

System.***out***.println("Maximum no is"+max);

min=arr[0];

**for**(i=0;i<n;i++)

{

**if**(min>arr[i])

{

temp=min;

min=arr[i];

arr[i]=temp;

}

}

System.***out***.println("Minimum no is"+min);

}

}

Output:

Enter the size of array

5

Enter the array elements

10

20

30

40

50

Maximum no is50

Minimum no is10

9: Write a program to create an array of integers and perform following operations on that array like finding the sum, average, maximum and minimum number in that array. Accept the numbers of the array from user.

**import** java.util.Scanner;

**public** **class** MenuSwitch {

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

**int** ch,n,i,sum=0,avg;

**boolean** flag=**false**;

System.***out***.println("Enter the size of array");

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

n=sc.nextInt();

**int**[] arr=**new** **int**[n];

System.***out***.println("Enter the array elements");

**for**(i=0;i<n;i++)

{

arr[i]=sc.nextInt();

}

System.***out***.println("1.Sum 2.Average 3.Minimum 4.Maximum 5.Exit");

**do**

{

System.***out***.println("Enter your choice");

ch=sc.nextInt();

**switch** (ch) {

**case** 1:

**for**(i=0;i<n;i++)

{

sum=sum+arr[i];

}

System.***out***.println("The sum of array element is"+sum);

**break**;

**case** 2:

avg=sum/n;

System.***out***.println("Average is"+avg);

**break**;

**case** 3:

**int** min=arr[0];

**for**(i=0;i<n;i++)

{

**if**(min>arr[i])

{

**int** temp=min;

min=arr[i];

arr[i]=temp;

}

}

System.***out***.println("Minimum no is"+min);

**break**;

**case** 4:

**int** max=arr[0];

**for**(i=0;i<n;i++)

{

**if**(max<arr[i])

{

**int** temp=max;

max=arr[i];

arr[i]=temp;

}

}

System.***out***.println("Maximum no is"+max);

**break**;

**case** 5:

flag=**true**;

**break**;

**default**:

System.***out***.println("Wrong choice");

**break**;

}

}**while**(flag!=**true**);

}

}

Output:

Enter the size of array

5

Enter the array elements

10

20

30

40

50

1.Sum 2.Average 3.Minimum 4.Maximum 5.Exit

Enter your choice

1

The sum of array element is150

Enter your choice

2

Average is30

Enter your choice

3

Minimum no is10

Enter your choice

4

Maximum no is50

Enter your choice

10: Write a program to input basic salary of an employee and calculate its Gross salary according to following: Basic Salary <= 10000 : HRA = 20%, DA = 80% Basic Salary <= 20000 : HRA = 25%, DA = 90% Basic Salary > 20000 : HRA = 30%, DA = 95%

**import** java.util.Scanner;

**public** **class** GrossSalary {

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

**double** basic,hra=0,da=0,gross=0;

System.***out***.println("Enter the basic salary");

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

basic=sc.nextDouble();

**if**(basic<=10000)

{

hra=basic\*0.2;

da=basic\*0.8;

}

**else** **if**(basic>10000 && basic<=20000)

{

hra=basic\*0.25;

da=basic\*0.90;

}

**else** **if**(basic>20000)

{

hra=basic\*0.30;

da=basic\*0.95;

}

gross=basic+hra+da;

System.***out***.println("Gross Salary is"+gross);

}

}

Output:

Enter the basic salary

15000

Gross Salary is32250.0

11:Write a menu driven program for stationary shop.Items are 1:Pen 2:Pencil 3:NoteBook 4:Bottle 5:ColorBox.

1 pen cost is 10Rs,Pencil is 5 rs.NoteBook is 20 rs Bottle is 30 rs and ColorBox is at 50 Rs. Calculate Total of all purchesed items.

**import** java.util.Scanner;

**public** **class** StationaryShop {

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

**int** cost=0,ch,quantity,pcost=0,plcost=0,

nbcost=0,btlcost=0,clbcost=0;

**boolean** flag=**false**;

System.***out***.println("1.Pen\n2.Pencil\n3.Notebook\n4.Bottle\n5.Colorbox\n6.exit");

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

**while**(flag!=**true**)

{

System.***out***.println("Enter your choice");

ch=sc.nextInt();

**switch**(ch)

{

**case** 1:

System.***out***.println("How much pen you want");

quantity=sc.nextInt();

pcost=10\*quantity;

**break**;

**case** 2:

System.***out***.println("How much pencil you want");

quantity=sc.nextInt();

plcost=5\*quantity;

**break**;

**case** 3:

System.***out***.println("How much notebook you want");

quantity=sc.nextInt();

nbcost=20\*quantity;

**break**;

**case** 4:

System.***out***.println("How much bottle you want");

quantity=sc.nextInt();

btlcost=30\*quantity;

**break**;

**case** 5:

System.***out***.println("How much colorboxes you want");

quantity=sc.nextInt();

clbcost=50\* quantity;

**case** 6:

flag=**true**;

**break**;

}

}

cost=pcost+plcost+nbcost+btlcost+clbcost;

System.***out***.println("Cost of Items You have purchased"+cost);

}

}

Output:

1.Pen

2.Pencil

3.Notebook

4.Bottle

5.Colorbox

6.exit

Enter your choice

1

How much pen you want

3

Enter your choice

2

How much pencil you want

2

Enter your choice

3

How much notebook you want

4

Enter your choice

4

How much bottle you want

1

Enter your choice

5

How much colorboxes you want

5

Cost of Items You have purchased400

**--------DAY 3 ASSIGNMENTS------**

1:Write a function to accept array of string.Display all elements in uppercase.

**import** java.util.Scanner;

**public** **class** StringArray {

**public** **static** **void** acceptArray()

{

**int** size,i;

String name[];

System.***out***.println("Enter the size");

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

size=sc.nextInt();

name=**new** String[size];

System.***out***.println("Enter the array elements\n");

**for**( i=0;i<size;i++)

{

name[i]=sc.next();

}

System.***out***.println("Array Elements are");

**for**(i=0;i<size;i++)

{

System.***out***.println(name[i].toUpperCase());

}

}

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

*acceptArray*();

}

}

Output:

Enter the size

3

Enter the array elements

Bhagyashri

seema

geeta

Array Elements are

BHAGYASHRI

SEEMA

GEETA

2:Write a Java program to accept 2D aaray elements.Display all elements.

**import** java.util.Scanner;

**public** **class** TwoDArray {

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

**int** arr[][],row,cols,i,j;

System.***out***.println("Enter how much row you want");

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

row=sc.nextInt();

System.***out***.println("Enter how much columns you want");

cols=sc.nextInt();

arr=**new** **int**[row][cols];

System.***out***.println("Enter the Array Elements");

**for**(i=0;i<row;i++)

{

**for**(j=0;j<cols;j++)

{

arr[i][j]=sc.nextInt();

}

}

System.***out***.println("Array elements are");

**for**(i=0;i<row;i++)

{

**for**(j=0;j<cols;j++)

{

System.***out***.print("["+i+j+"]"+arr[i][j]+" ");

}

System.***out***.println("\n");

}

}

}

Output:

Enter how much row you want

3

Enter how much columns you want

3

Enter the Array Elements

1

2

3

4

5

6

7

8

9

Array elements are

[00]1 [01]2 [02]3

[10]4 [11]5 [12]6

[20]7 [21]8 [22]9

3:Write a java program to make the addition of two 2D array And store result in Third array.

**import** java.util.Scanner;

**public** **class** ArrayAddition {

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

**int** arr1[][],arr2[][],arr3[][],i,j,row,cols;

System.***out***.println("Enter the row values");

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

row=sc.nextInt();

System.***out***.println("Enter the column values");

cols=sc.nextInt();

arr1=**new** **int**[row][cols];

arr2=**new** **int**[row][cols];

arr3=**new** **int**[row][cols];

System.***out***.println("Enter the 1st Array values");

**for**(i=0;i<row;i++)

{

**for**(j=0;j<cols;j++)

{

arr1[i][j]=sc.nextInt();

}

}

System.***out***.println("1st Array Elements are");

**for**(i=0;i<row;i++)

{

**for**(j=0;j<cols;j++)

{

System.***out***.print(arr1[i][j]+" ");

}

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

}

System.***out***.println("Enter the 2nd Array values");

**for**(i=0;i<row;i++)

{

**for**(j=0;j<cols;j++)

{

arr2[i][j]=sc.nextInt();

}

}

System.***out***.println("2nd Array Elements are");

**for**(i=0;i<row;i++)

{

**for**(j=0;j<cols;j++)

{

System.***out***.print(arr2[i][j]+" ");

}

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

}

**for**(i=0;i<row;i++)

{

**for**(j=0;j<cols;j++)

{

arr3[i][j]=arr1[i][j]+arr2[i][j];

}

}

System.***out***.println("Addition of array elements are");

**for**(i=0;i<row;i++)

{

**for**(j=0;j<cols;j++)

{

System.***out***.print(arr3[i][j]+" ");

}

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

}

}

}

Output:

Enter the row values

3

Enter the column values

3

Enter the 1st Array values

1

2

3

4

5

6

7

8

9

1st Array Elements are

1 2 3

4 5 6

7 8 9

Enter the 2nd Array values

1

2

3

4

5

6

7

8

9

2nd Array Elements are

1 2 3

4 5 6

7 8 9

Addition of array elements are

2 4 6

8 10 12

14 16 18

4.Write a function /method which takes variable no of int numbers as an argument and returns the sum of these arguments as an output.

**import** java.util.Scanner;

**public** **class** VariableNoArgs {

//public static int sum(int... a,int... b);

**public** **static** **int** sum(**int**... a)

{

**int** sum=0;

**int** size=a.length;

System.***out***.println("Size is="+size);

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

{

sum=sum+a[i];

}

**return** sum;

}

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

*sum*(10,20,30,40);

**int** arr[],size,i;

**int** c=*sum*(1,2);

System.***out***.println("Sum of elements is="+c);

c=*sum*(1,2,3,4,5,6);

System.***out***.println("Sum of elements is="+c);

}

}

Output:

Size is=4

Size is=2

Sum of elements is=3

Size is=6

Sum of elements is=21

5:Write a program to merge two arrays into a single array.

**import** java.util.Scanner;

**public** **class** MergeArray {

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

**int** a1[],a2[],a3[],i,j,n1,n2,count=0;

System.***out***.println("Enter the size of 1 array");

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

n1=sc.nextInt();

a1=**new** **int**[n1];

a2=**new** **int**[n1];

a3=**new** **int** [n1+n1];

System.***out***.println("Enter The 1st array elemnts");

**for**(i=0;i<n1;i++)

{

a1[i]=sc.nextInt();

}

System.***out***.println("1st Array elements are");

**for**(**int** k : a1)

{

System.***out***.print(k+" ");

}

System.***out***.println("Enter The 2nd array elemnts");

**for**(i=0;i<n1;i++)

{

a2[i]=sc.nextInt();

}

System.***out***.println("2nd Array elements are");

**for**(**int** k : a2)

{

System.***out***.print(k+" ");

}

**for**(i=0;i<n1;i++)

{

a3[i]=a1[i];

count++;

}

**for**(i=0;i<n1;i++)

{

a3[count]=a2[i];

count++;

}

System.***out***.println("Merge array is\n");

**for**(i=0;i<n1+n1;i++)

{

System.***out***.print(a3[i]+" ");

}

}

}

Output:

Enter the size of 1 array

4

Enter The 1st array elemnts

1

2

3

4

1st Array elements are

1 2 3 4 Enter The 2nd array elemnts

5

6

7

8

2nd Array elements are

5 6 7 8 Merge array is

1 2 3 4 5 6 7 8

6:Write a java program to sort array.

**import** java.util.Scanner;

**public** **class** SortArray {

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

**int** a[],n,i,j;

System.***out***.println("Enter the size of array");

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

n=sc.nextInt();

a=**new** **int**[n];

System.***out***.println("Enter the array elements");

**for**(i=0;i<n;i++)

{

a[i]=sc.nextInt();

}

**for**(i=0;i<n;i++)

{

**for**(j=i+1;j<n;j++)

{

**if**(a[i]>a[j])

{

**int** temp;

temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

}

**for**(i=0;i<n;i++)

{

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

}

}

}

Output:

Enter the size of array

5

Enter the array elements

34

56

43

21

23

21

23

34

43

56

7:Write a java program to convert char array into String.

**public** **class** CharArrayToStr {

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

**char** name[]= {'a','b','c','d'};

String s=**null**;

**int** size=name.length;

s=s.*valueOf*(name);

System.***out***.println(s.toString());

}

}

Output:

abcd

8: Create a java application for the following.

Create a Customer class , with data members (all private : tight encapsulation)

name(String),email(String),age(int).Supply a parameterized constructor to accept all details from user.Supply an argument less constructor to init default name to "Riya" , email to "riya@gmail.com",age=25.Write a method displayCustomer to display customer details.

**public** **class** Customer {

**private** String name,email;

**private** **int** age;

**public** Customer() {

name="Riya";

email="riya@gmail.com";

age=25;

}

**public** Customer(String nm,String email,**int** age)

{

**this**.name=nm;

**this**.email=email;

**this**.age=age;

}

**public** **void** displayInfo()

{

System.***out***.println("Name is="+name);

System.***out***.println("Email is="+email);

System.***out***.println("Age is="+age);

}

}

**import** java.util.Scanner;

**public** **class** TestCustomer {

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

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

Customer c1=**new** Customer();

c1.displayInfo();

System.***out***.println("Enter the name");

String name=sc.next();

System.***out***.println("Enter the email");

String email=sc.next();

System.***out***.println("Enter the age");

**int** age=sc.nextInt();

Customer c2=**new** Customer(name, email, age);

c2.displayInfo();

}

}

Name is=Riya

Email is=riya@gmail.com

Age is=25

Enter the name

Bhagyashri

Enter the email

bha@gmail.com

Enter the age

24

Name is=Bhagyashri

Email is=bha@gmail.com

Age is=24

9:Create Date class with data members day,month,year.create getter setter for data members.writ display function to display date.

**public** **class** Date {

**int** date, month, year;

**public** Date(**int** dd,**int** mm,**int** yy)

{

**this**.date=dd;

**this**.month=mm;

**this**.year=yy;

}

**public** **void** setDate(**int** date) {

**this**.date = date;

}

**public** **int** getDate() {

**return** date;

}

**public** **void** setMonth(**int** month) {

**this**.month = month;

}

**public** **int** getMonth()

{

**return** month;

}

**public** **void** setYear(**int** year)

{

**this**.year=year;

}

**public** **int** getYear()

{

**return** year;

}

**public** **void** display()

{

System.***out***.println("Date="+date+"/"+month+"/"+year);

}

}

**public** **class** TestDate {

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

Date d1 = **new** Date();

d1.setDate(14);

d1.setMonth(05);

d1.setYear(2021);

System.***out***.println("Date=" + d1.getDate() + "/" + d1.getMonth() + "/" + d1.getYear());

Date d3=**new** Date(23,05,2021);

d3.display();

}

}

Output:

Date=14/5/2021

Date=23/5/2021

**-------------DAY 4 ASSIGNMENT-------**

1:Create Date class with data members day,month,year.

Write a method to accept all data members.write display function to display date.

**import** java.util.Scanner;

**public** **class** Date1 {

**private** **int** dd, mm, yy;

**public** **void** acceptData() {

System.***out***.println("Enter date");

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

dd = sc.nextInt();

System.***out***.println("Enter month");

mm = sc.nextInt();

System.***out***.println("Enter the year");

yy = sc.nextInt();

}

**public** **void** display() {

System.***out***.println("Date is=" + dd + "/" + mm + "/" + yy);

}

}

**public** **class** TestDate {

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

Date1 d=**new** Date1();

d.acceptData();

d.display();

}

}

Output:

Enter date

18

Enter month

05

Enter the year

2021

Date is=18/5/2021

2:>Create a java applicstion for the following.

Create a Customer class , with data members (all private : tight encapsulation)

name(String),email(String),age(int), creditLimit(double)

2.1 Write acceptInfo() method to accept customer details:

2.2 Write a method , showDetails to display customer name & credit limit only.

Naming convention : public void setCreditLimit(double limit) {...}

public double getCreditLimit(){...}

2.3 Create a TestCustomer class . Use scanner to accept user i/ps.

Create 2 customers object.

Display customer details of both customers.

Prompt user , for changing creditLimit of the customer2.

Display new credit limit on the console.

**import** java.util.Scanner;

**public** **class** Customer {

**private** String name,email;

**private** **int** age;

**private** **double** creditlim;

**public** **void** setCreditlim(**double** creditl)

{

creditlim=creditl;

}

**public** **double** getCreditlim()

{

**return** creditlim;

}

**public** **void** acceptData()

{

System.***out***.println("Enter the Name");

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

name=sc.nextLine();

System.***out***.println("Enter the Email");

email=sc.next();

System.***out***.println("Enter the age");

age=sc.nextInt();

System.***out***.println("Enter the creditlimit");

creditlim=sc.nextDouble();

}

**public** **void** display()

{

System.***out***.println("Name is="+name);

System.***out***.println("Creditlimit is="+creditlim);

}

}

**import** java.util.Scanner;

**public** **class** TestCustomer {

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

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

Customer c1=**new** Customer();

c1.acceptData();

c1.display();

Customer c2=**new** Customer();

c2.acceptData();

c2.display();

System.***out***.println("Enter new creditlimit");

**int** creditlim=sc.nextInt();

c2.setCreditlim(creditlim);

System.***out***.println(c2.getCreditlim());

}

}

Output:

Enter the Name

bhagyashri

Enter the Email

bjadhav@gmail.com

Enter the age

24

Enter the creditlimit

40000

Name is=bhagyashri

Creditlimit is=40000.0

Enter the Name

ww

Enter the Email

rr@gmail.com

Enter the age

34

Enter the creditlimit

50000

Name is=ww

Creditlimit is=50000.0

Enter new creditlimit

70000

70000.0

3:Consider that payroll software needs to be developed for computerization of

operations of an ABC organization. The organization has employees.

3.1. Construct a class Employee with following members using private access

specifies:

Employee Id integer

Employee Name string

Basic Salary double

HRA double

Medical double

PF double

PT double

Net Salary double

Gross Salary double

Please use following expressions for calculations:

\* HRA = 50% of Basic Salary

\* PF = 12% of Basic Salary

\* PT = Rs. 200

3.2. Write methods to display the details of an employee and calculate the gross

and net salary.

\* Goss Salary = Basic Salary + HRA + Medical

\* Net Salary = Gross Salary – (PT + PF)

Create a TestEmployee Class.Create Object of employee class and assign values and display Details.

**import** java.util.Scanner;

**public** **class** Employee {

**private** **int** empid;

**private** String empname;

**private** **double** basicsal, hra, medical=500, pf, pt = 200, netsal, grosssal;

**public** **void** acceptData() {

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

System.***out***.println("Enter the id");

empid = sc.nextInt();

System.***out***.println("Enter the Employee Name");

empname = sc.next();

System.***out***.println("Enter the salary");

basicsal = sc.nextDouble();

}

**public** **void** display()

{

System.***out***.println("Employee Id ="+empid);

System.***out***.println("Employee Name="+empname);

System.***out***.println("Salary ="+basicsal);

System.***out***.println("GrossSalary="+grosssal);

System.***out***.println("NetSalary ="+netsal);

}

**public** **void** grossSalCalculate()

{

hra = basicsal \* 0.5;

grosssal=basicsal+hra+medical;

}

**public** **void** netSalCalculate()

{

pf=basicsal\*0.12;

netsal=grosssal-(pf+pt);

}

}

**public** **class** TestEmployee {

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

Employee e1=**new** Employee();

e1.acceptData();

e1.grossSalCalculate();

e1.netSalCalculate();

e1.display();

}

}

Output:

Enter the id

1

Enter the Employee Name

ee

Enter the salary

30000

Employee Id =1

Employee Name=ee

Salary =30000.0

GrossSalary=45500.0

NetSalary =41700.0

**-----------DAY 5 ASSIGNMENT-----------**

Problem Statement 1

1.1:Create 2 classes Student and Batch. Student class is in pack1 and Batch

class is in pack2. Write accept() and display() methid in both the class to accept and to display info.

Write a Test class to print Student and Batch

information.

1.2:Use the Student and Batch classes created earlier. It should contain

public rollNo,Public Name, private Grade and default totalMarks attributes and using Batch

class, check accessibility of there attributes in same package .

1.3:

Create new package pack2.

create class testStudent in pack3;

create object of Student class from pack1 and access methods.Try to check accessibility.

**package** iacsd.dacstudent;

**import** java.util.Scanner;

**public** **class** Student {

**public** **int** rollno;

**int** marks;

**public** String name;

**private** String grade;

**public** **void** acceptData() {

System.***out***.println("Enter the rollno");

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

rollno = sc.nextInt();

System.***out***.println("Enter the name");

name = sc.next();

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

marks = sc.nextInt();

}

**public** **void** display() {

System.***out***.println("Rollno =" + rollno);

System.***out***.println("Name =" + name);

System.***out***.println("marks=" + marks);

}

}

**package** iacsd.dacstudentbatch;

**import** java.util.Scanner;

**public** **class** Batch {

String timing;

String subject;

**public** **void** accept()

{

System.***out***.println("Eneter timing details");

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

timing=sc.next();

System.***out***.println("Enter the subject");

subject=sc.next();

}

**public** **void** display()

{

System.***out***.println("Timing ="+timing);

System.***out***.println("Subject"+subject);

}

}

**package** iacsd.testpackage;

**import** iacsd.dacstudentbatch.Batch;

**public** **class** TestBatch {

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

Batch b1=**new** Batch();

b1.accept();

b1.display();

}

}

**package** iacsd.testpackage;

**import** iacsd.dacstudent.Student;

**public** **class** TestStudent {

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

Student s1=**new** Student();

s1.rollno=12;

//s1.marks=12; not possible becoz it is accessible only in same package;

s1.acceptData();

s1.display();

}

}

Output:

Eneter timing details

23

Enter the subject

java

Timing =23

Subjectjava

Enter the rollno

1

Enter the name

bb

Enter the marks

67

Rollno =1

Name =bb

marks=67

Problem Statement 2:

2.1: Create Employee class with empid,name,address,salary.Use Getter Setters

2.2 :create array of 5 employees...show all employees using for loop as well as for each loop...in same assignment

2.3:create array of 5 employees ...show those employee who are getting salary >20000.

**import** java.util.Scanner;

**public** **class** Employee {

**int** empid, salary;

String empname, addr;

**public** Employee() {

empid = 1;

empname = "Bhagyashri";

addr = "Pune";

salary = 1000;

}

**public** Employee(**int** id, String empnm, String address, **int** sal) {

System.***out***.println("Inside the parameterized constructor");

**this**.empid = id;

**this**.empname = empnm;

**this**.addr = address;

**this**.salary = sal;

}

**int** getSalary() {

**return** **this**.salary;

}

**public** **void** acceptData() {

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

System.***out***.println("Enter Employee id");

empid = sc.nextInt();

System.***out***.println("Enter the Employee name");

empname = sc.next();

System.***out***.println("Enter Address");

addr = sc.next();

System.***out***.println("Enter Salary");

salary = sc.nextInt();

}

**public** **void** display() {

System.***out***.println("Employee Id=" + empid);

System.***out***.println("Employee Name=" + empname);

System.***out***.println("Address=" + addr);

System.***out***.println("Salary =" + salary);

}

}

**import** java.util.Scanner;

**public** **class** TestEmployee {

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

**int** i,n;

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

Employee e2=**new** Employee();

e2.display();

e2=**new** Employee(10,"xyz","pune",200000);

e2.display();

System.***out***.println("Enter the how much employee details you want");

n=sc.nextInt();

Employee e1[]=**new** Employee[n];

**for**( i=0;i<n;i++)

{

e1[i]=**new** Employee();

e1[i].acceptData();

}

System.***out***.println("Displaying data using Traditional For Loop");

**for**(i=0;i<e1.length;i++)

{

e1[i].display();

}

System.***out***.println("Displaying data using for each loop");

**for** (Employee emp:e1)

{

emp.display();

}

System.***out***.println("Displaying data of emp whose salary >20000");

**for**(i=0;i<e1.length;i++)

{

**if**(e1[i].getSalary()>20000)

{

e1[i].display();

}

}

}

}

Output:

Employee Id=1

Employee Name=Bhagyashri

Address=Pune

Salary =1000

Inside the parameterized constructor

Employee Id=10

Employee Name=xyz

Address=pune

Salary =200000

Enter the how much employee details you want

2

Enter Employee id

6

Enter the Employee name

rr

Enter Address

pune

Enter Salary

50000

Enter Employee id

5

Enter the Employee name

dd

Enter Address

satara

Enter Salary

30000

Displaying data using Traditional For Loop

Employee Id=6

Employee Name=rr

Address=pune

Salary =50000

Employee Id=5

Employee Name=dd

Address=satara

Salary =30000

Displaying data using for each loop

Employee Id=6

Employee Name=rr

Address=pune

Salary =50000

Employee Id=5

Employee Name=dd

Address=satara

Salary =30000

Displaying data of emp whose salary >20000

Employee Id=6

Employee Name=rr

Address=pune

Salary =50000

Employee Id=5

Employee Name=dd

Address=satara

Salary =30000

Problem STatement3

3->Create Date Class with Data Members day,month, year

Create an object and initialize it using mutator methods and accesses it using

accessor methods. Print the date.

Create two objects and initialize them using no-argument and parameterized

constructor respectively. Print the date.

**public** **class** Date {

**int** date, month, year;

**public** Date()

{

date=12;

month=05;

year=2021;

}

**public** Date(**int** dd,**int** mm,**int** yy)

{

**this**.date=dd;

**this**.month=mm;

**this**.year=yy;

}

**public** **void** setDate(**int** date) {

**this**.date = date;

}

**public** **int** getDate() {

**return** date;

}

**public** **void** setMonth(**int** month) {

**this**.month = month;

}

**public** **int** getMonth()

{

**return** month;

}

**public** **void** setYear(**int** year)

{

**this**.year=year;

}

**public** **int** getYear()

{

**return** year;

}

**public** **void** display()

{

System.***out***.println("Date="+date+"/"+month+"/"+year);

}

}

**public** **class** TestDate {

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

Date d1 = **new** Date();

d1.setDate(14);

d1.setMonth(05);

d1.setYear(2021);

System.***out***.println("Date=" + d1.getDate() + "/" + d1.getMonth() + "/" + d1.getYear());

Date d2=**new** Date();

d2.display();

Date d3=**new** Date(23,05,2021);

d3.display();

}

}

Output:

Date=14/5/2021

Date=12/5/2021

Date=23/5/2021

Problem Statement 4:

->Create a java applicstion for the following.

Create a Customer class , with data members (all private : tight encapsulation)

name(String),email(String),age(int), creditLimit(double)

4.1 Supply a parameterized constructor to accept all details from user

4.2 Supply an argument less constructor to init default name to "Riya" , email to "riya@gmail.com",age=25,creditLimit=10000

(Must use constructor chaining)

4.3 Write a method , getDetails to return String form of customer name & credit limit only.

4.4 Supply getter & setter for creditLimit.

Naming convention : public void setCreditLimit(double limit) {...}

public double getCreditLimit(){...}

4.5 Create a TestCustomer class . Use scanner to accept user i/ps.

Create 2 customers using 2 different constructors(4.1 : customer1 ,4.2 : customer2)

Display customer details of both customers.

Prompt user , for changing creditLimit of the customer2.

Display new credit limit on the console.

**public** **class** Customer {

**private** String custName,email;

**private** **int** age;

**private** **double** creditlim;

**public** Customer()

{

custName="Riya";

email="riya@gmail.com";

age=25;

creditlim=10000;

}

**public** Customer(String nm,String email,**int** age,**double** creditlim)

{

**this**();

System.***out***.println("Customeer name="+custName);

**this**.custName=nm;

**this**.email=email;

**this**.age=age;

**this**.creditlim=creditlim;

}

**public** **void** setCreditlim(**double** creditim)

{

**this**.creditlim=creditim;

}

**public** **double** getCreditlim()

{

**return** creditlim;

}

**public** **void** display()

{

System.***out***.println("Customer name="+custName);

System.***out***.println("Email="+email);

System.***out***.println("Age="+age);

System.***out***.println("Creditlimit="+creditlim);

}

**public** **void** getDetails()

{

System.***out***.println("Customer Name="+custName);

System.***out***.println("Creditlimit="+creditlim);

}

}

**import** java.util.Scanner;

**public** **class** TestCustomer {

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

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

Customer c2=**new** Customer();

c2.display();

System.***out***.println("Enter the customer name");

String name=sc.next();

System.***out***.println("Enter the Email");

String email=sc.next();

System.***out***.println("Enter Age");

**int** age=sc.nextInt();

System.***out***.println("Enter the creditlimit");

**double** creditlim=sc.nextDouble();

Customer c1=**new** Customer(name, email, age, creditlim);

c1.display();

System.***out***.println("Enter the new creditlimit");

**double** creditlimit=sc.nextDouble();

c2.setCreditlim(creditlimit);

System.***out***.println("New creditlimit="+c2.getCreditlim());

}

}

Output:

Customer name=Riya

Email=riya@gmail.com

Age=25

Creditlimit=10000.0

Enter the customer name

rr

Enter the Email

ee

Enter Age

23

Enter the creditlimit

30000

Customeer name=Riya

Customer name=rr

Email=ee

Age=23

Creditlimit=30000.0

Enter the new creditlimit

60000

New creditlimit=60000.0

5 .Show all ASCII value of all chars in name

Java program to find ASCII value of a character

**public** **class** Asciivalue {

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

String name= "Bhagyashri";

**char** arr[]=name.toCharArray();

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

{

**int** asc=(**int**)arr[i];

System.***out***.println("ASCII Value of="+arr[i]+"="+asc);

}

}

}

ASCII Value of=B=66

ASCII Value of=h=104

ASCII Value of=a=97

ASCII Value of=g=103

ASCII Value of=y=121

ASCII Value of=a=97

ASCII Value of=s=115

ASCII Value of=h=104

ASCII Value of=r=114

ASCII Value of=i=105