

Vansh section k

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    printf("Hello World");
```

```
    return 0;
```

```
}
```

program 1

```
#include <stdio.h>
```

```
int main()
```

```
{int a=2,b=2,sum;
```

```
    sum=a+b;
```

```
    printf("the sum of %d and %d is %d",a,b,sum);
```

```
    return 0;
```

```
}
```

program 2

```
#include <stdio.h>
```

```
int main()
```

```
{int a=2,b=4,sub;
```

```
    sub=a-b;
```

```
    printf("the subtraction of %d and %d is %d",a,b,sub);
```

```
    return 0;
```

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```
}
```

program 3

```
#include <stdio.h>
```

```
int main()
```

```
{int a=2,b=4,mul;
```

```
    mul=a*b;
```

```
    printf("the multiplication of %d and %d is %d",a,b,mul);
```

```
    return 0;
```

```
}
```

program 4

```
#include <stdio.h>
```

```
int main()
```

```
{int a=4,b=2,div;
```

```
    div=a/b;
```

```
    printf("the divide of %d and %d is %d",a,b,div);
```

```
    return 0;
```

```
}
```

program 5

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```
#include <stdio.h>

int main()

{ float a=4,b=2,sum;

    sum=a+b;

    printf("the sum of %f and %f is %f",a,b,sum);


    return 0;

}
```

program 6

```
#include <stdio.h>

int main()

{ float a=4,b=2,sub;

    sub=a-b;

    printf("the sub of %f and %f is %f",a,b,sub);


    return 0;

}
```

program 7

```
#include <stdio.h>

int main()

{ float a=4,b=2,multiplication;
```

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```
    multiplication=a*b;

    printf("the multiplication of %f and %f is %f",a,b,multiplication);


    return 0;
}
```

program 8

```
#include <stdio.h>

int main()

{float a=4,b=2,div;

    div=a/b;

    printf("the divide of %f and %f is %f",a,b,div);


    return 0;
}
```

program 9

```
#include <stdio.h>

int main()

{int a,b,sum;

    printf("Enter the value of a -: ");

    scanf("%d",&a);

    printf("Enter the value of b -: ");

    scanf("%d",&b);
```

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```
    sum=a+b;

    printf("the sum of %d and %d is %d",a,b,sum);

    return 0;

}
```

program 10

```
#include <stdio.h>

int main()

{int a,b,sub;

printf("Enter the value of a -: ");

scanf("%d",&a);

printf("Enter the value of b -: ");

scanf("%d",&b);

    sub=a-b;

    printf("the sub of %d and %d is %d",a,b,sub);

    return 0;

}
```

program 11

```
#include <stdio.h>

int main()

{int a,b,mul;

printf("Enter the value of a -: ");

scanf("%d",&a);
```

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```
printf("Enter the value of b -: ");  
scanf("%d",&b);  
  
mul=a*b;  
  
printf("the multiplication of %d and %d is %d",a,b,mul);  
  
return 0;  
}
```

program 12

```
#include <stdio.h>  
  
int main()  
{int a,b,div;  
printf("Enter the value of a -: ");  
scanf("%d",&a);  
printf("Enter the value of b -: ");  
scanf("%d",&b);  
  
div=a/b;  
  
printf("the divide of %d and %d is %d",a,b,div);  
  
return 0;  
}
```

program 13

```
#include <stdio.h>  
  
int main()  
{float a,b,sum;
```

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```
printf("Enter the value of a -: ");  
  
scanf("%f",&a);  
  
printf("Enter the value of b -: ");  
  
scanf("%f",&b);  
  
    sum=a+b;  
  
    printf("the sum of %f and %f is %0.1f",a,b,sum);  
  
    return 0;  
  
}
```

program 14

```
#include <stdio.h>  
  
int main()  
{float a,b,sub;  
  
printf("Enter the value of a -: ");  
  
scanf("%f",&a);  
  
printf("Enter the value of b -: ");  
  
scanf("%f",&b);  
  
    sub=a-b;  
  
    printf("the sub of %f and %f is %0.1f",a,b,sub);  
  
    return 0;  
  
}
```

program 15

```
#include <stdio.h>
```

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```
int main()

{float a,b,mul;

printf("Enter the value of a -: ");

scanf("%f",&a);

printf("Enter the value of b -: ");

scanf("%f",&b);

mul=a*b;

printf("the multiplication of %f and %f %0.1f",a,b,mul);

return 0;

}
```

program 16

```
#include <stdio.h>

int main()

{float a,b;

float div;

printf("Enter the value of a -: ");

scanf("%f",&a);

printf("Enter the value of b -: ");

scanf("%f",&b);

div=a/b;

printf("the divide of %0.2f and %0.2f is %0.1f",a,b,div);

return 0;

}
```


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program 17

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    printf("Hello World");
```

```
    return 0;
```

```
}
```

program 18

```
#include <stdio.h>
```

```
//to find area of circle
```

```
int main()
```

```
{ float r,area;
```

```
    printf("enter the radii of circle:-");
```

```
    scanf("%f",&r);
```

```
    area=3.14*r*r;
```

```
    printf("the area of circle with radius %0.2f is :- %0.2f",r,area);
```

```
}
```

program 19

```
#include <stdio.h>
```

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//to find area of cylinder

```
int main()
```

```
{float r,h,area;
```

```
printf("enter the radii of cylinder:-");
```

```
scanf("%f",&r);
```

```
printf("enter the hieght of cylinder:-");
```

```
scanf("%f",&h);
```

```
area = 2*3.14*r*(r+h);
```

```
printf("the area of cylinder with radius %0.2f and hieght %0.3f is :- %0.2f",r,h,area);
```

```
}
```

program 20

```
#include <stdio.h>
```

//to find volume of cylinder

```
int main()
```

```
{float r,h,volume;
```

```
printf("enter the radii of cylinder:-");
```

```
scanf("%f",&r);
```

```
printf("enter the hieght of cylinder:-");
```

```
scanf("%f",&h);
```

```
volume = 3.14*r*r*h;
```

```
printf("the volume of cylinder with radius %0.2f and hieght %0.3f is :- %0.2f",r,h,volume);
```

```
}
```

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program 21

```
#include <stdio.h>

//to find area of rectangle

int main()

{ float L,B,area;

printf("enter the the value of lenght of recatngle:-");

scanf("%f",&L);

printf("enter the vlue of breadth of rectangle:-");

scanf("%f",&B);

area=L*B;

printf("the area of raectangle with lenthgh %0.2f and breadth %0.3f is :- %0.2f",L,B,area);

}
```

program 22

```
#include <stdio.h>

//to find perimeter of rectangle

int main()

{ float L,B,perimeter;

printf("enter the value of lenght of recatngle:-");

scanf("%f",&L);

printf("enter the value of breadth of rectangle:-");

scanf("%f",&B);

perimeter=2*(L+B);
```

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```
printf("the perimeter of rectangle with length %0.2f and breadth %0.3f is :- %0.2f",L,B,perimeter);
```

```
}
```

program 23

```
#include <stdio.h>
```

```
//to convert centimeters into meters
```

```
int main()
```

```
{float a,m;
```

```
printf("enter the value of a in centimeters:-");
```

```
scanf("%f",&a);
```

```
m=a/100;
```

```
printf("the value of variable a in cm is :- %0.2f and in meter is %0.2f",a,m);
```

```
}
```

program 24

```
#include <stdio.h>
```

```
//to convert kg into gm
```

```
int main()
```

```
{float a,kg;
```

```
printf("enter the value of a in kg:-");
```

```
scanf("%f",&a);
```

```
kg=a*1000;
```

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```
printf("the value of avriable a in cm is :- %0.2f and in meter is %0.2f",a,kg);
```

```
}
```

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
int age;
```

```
float h,w;
```

```
printf("enter your age;-");
```

```
scanf("%d",&age);
```

```
if(age>18)
```

```
{
```

```
printf("you are eligible for ncc");
```

```
}
```

```
return 0;
```

```
}
```

program 2

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
int age;
```

Vansh section k

```
float h,w;

printf("enter your age:-");

scanf("%d",&age);

if(age>18)

{

printf("you are eligible for ncc");

}

else

{

printf("you are not eligible");

}

return 0;

}
```

program 3

```
int main()

{

int age;

float h,w;

printf("enter your age:-");

scanf("%d",&age);

if(age>=18&&age<=35)

{

printf("you are eligible for ncc");

}

else if(age>35 && age<=45)
```

Vansh section k

```
{  
    printf("you are eligible for ncc office");  
}  
  
else  
  
{  
    printf("you are not eligible");  
}  
  
    return 0;  
}
```

program 4

```
#include <stdio.h>  
  
int main()  
{  
    int age;  
    float h,w;  
    printf("enter your age:-");  
    scanf("%d",&age);  
    if(age>=18&&age<=35)  
    {printf("enter your hieght:-");  
    scanf("%f",&h);  
    printf("enter your wieght:-");  
    scanf("%f",&w);  
    if (h>=5.5,w<55)
```

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```
{printf("you are eligible for ncc");  
}  
  
else  
  
{printf("not eligible due to wieght and hieght ");  
}  
}  
  
else if(age>35 && age<=45)  
  
{  
    printf("you are eligible for ncc office");  
}  
  
else  
  
{  
    printf("you are not eligible");  
}  
  
    return 0;  
}
```

program 5

```
#include <stdio.h>  
  
int main ()  
  
{float a,b;  
  
printf("enter the first number");  
  
scanf("%f",&a);  
  
printf("enter the second number");
```


Vansh section k

```
scanf("%f",&b);

if(a>b)

{

    printf("%f is grtr than %f",a,b);

}

else if(a<b)

{

    printf("%f is greater than %f",b,a);

}

else

{

    printf("%f is equal to %f",a,b);

}

return 0;

}
```

```
#include <stdio.h>
```

```
int main ()

{float a,b,c;

printf("enter the first number");

scanf("%f",&a);

printf("enter the second number");

scanf("%f",&b);

printf("enter the third number");

scanf("%f",&c);
```

Vansh section k

```
if(a>b||a>c)
{
    printf("%f is grtr than %fand %f",a,b,c);
}
else if(b>a||b>c)
{
    printf("%f is greater than %fand %f",b,a,c);
}
else if(c>a||c>b)
{
    printf("%f is greater than %f and %f",c,a,b);
}
else
{
    printf("%f,%f,%f are equal in values",a,b,c);
}

return 0;
}
```

#include <stdio.h>

```
int main ()
{
    float a;

    printf("enter the number");

    scanf("%f",&a);

    if(a>0)
    {
```

Vansh section k

```
    printf("%f is positive",a);
}
else if(a<0)
{
    printf("%f is negative",a);
}
else
{
    printf("%f is zero",a);
}
return 0;
}

#include <stdio.h>

int main ()
{float a,b;
printf("enter the number");
scanf("%f",&a);
if(a%5==0||a%11==0)
{
    printf("%f is divisible by 5 and 11",a);
}
else
{
```

Vansh section k

```
    printf("%f is not divisible by 5 and 11",a);  
}  
  
return 0;  
}
```

```
#include <stdio.h>
```

```
int main ()  
{float a;  
  
printf("enter the number");  
  
scanf("%f",&a);  
  
if(a%2==0)  
{  
    printf("%f is even",a);  
}  
  
else  
{  
    printf("%f is odd",a);  
}  
  
return 0;  
}
```

```
#include <stdio.h>
```

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```
int main ()  
  
{float a;  
  
printf("enter the year");  
  
scanf("%f",&a);  
  
if(a%4==0)  
  
{  
  
    printf("%f is leap year",a);  
  
}  
  
else  
  
{  
  
    printf("%f is not aleap year",a);  
  
}  
  
    return 0;  
  
}
```

```
#include <stdio.h>
```

```
int main ()  
  
{float a;  
  
printf("enter the character");  
  
scanf("%f",&a);  
  
if(a<='a' || a>='z')  
  
{  
  
    printf("%f is even",a);
```

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```
}  
  
else  
  
{  
  
    printf("%f is odd",a);  
  
}  
  
    return 0;  
  
}  
  
  
#include <stdio.h>  
  
  
int main()  
  
{int n,temp,sum=0,rem;  
  
printf("input the no");  
  
scanf("%d",&n);  
  
temp=n;  
  
while(n>0)  
  
{rem=n%10;  
  
sum=(sum*10)+rem;  
  
n=n/10;  
  
}  
  
if (temp==sum)  
  
{printf("the give no is palindrome number");  
  
}  
  
else  
  
{printf("the given no is not a palindrome number");  
  
}
```

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```
    return 0;

}

//to print the no from 1 to 10

#include <stdio.h>

int main()

{ int i;

for(i=0;i<=10;i++)

{

    printf("the value of i is %d \n",i);

}

    return 0;

}
```

```
#include <stdio.h>

int main()

{ int i;

for(i=0;i<=10;++i)

{

    printf("the value of i is %d \n",i);

}

    return 0;
```

Vansh section k

```
}
```

```
int main()
{
    int i;
    for(i=20;i>=11;i--)
    {
        printf("the value of i is %d \n",i);
    }
    return 0;
}
```

```
int main()
{
    int i;
    for(i=20;i>=11;--i)
    {
        printf("the value of i is %d \n",i);
    }
    return 0;
}
```

```
// Print numbers from 7to10
```

```
#include <stdio.h>
```

```
int main()
```


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```
{  
  
    int i = 7;  
  
    while (i <= 10) {  
        printf("%d\n", i);  
        ++i;  
    }  
  
    return 0;  
}  
  
#include <stdio.h>  
  
int main()  
{int i;  
i=0;  
do{  
    printf("print the value of %d \n",i);  
    i++;  
}while(i<=10)  
;  
    return 0;  
}
```

```
#include <stdio.h>
```

```
int main()
```

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```
{int s,k,rows;

printf("enter the value of rows:");

scanf("%d",&rows);

for(s=1;s<=rows;s++)

{

    for(k=1;k<=s;k++)

    {printf("0");

    }

    printf("\n");

}

return 0;

}
```

```
#include <stdio.h>
```

```
int main()

{int i;

int values[10];

printf("enter values \n");

for(i=0;i<10;i++)

{scanf("%d",&values[i]);

}

printf("entered values are");

for(i=0;i<10;i++)

{printf("%d\n",values[i]);
```

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```
}  
  
return 0;  
  
}
```

string

```
#include <stdio.h>  
  
#include<string.h>  
  
int main()  
{char str[]="glauniversity";  
  
int i=0;
```

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```
while(str[i]!='\0')  
  
{i=i+1;  
  
}  
  
printf("the length of string is %d",i);  
  
return 0;  
  
}
```

```
#include <stdio.h>  
  
#include<string.h>  
  
int main()  
  
{char str[10];  
  
printf("enter the vslue of string");  
  
scanf("%s",str);  
  
int i=strlen(str);  
  
printf("the length of string is %d",i);  
  
return 0;  
  
}
```

```
#include <stdio.h>  
  
int compare(char a[],char b[]);  
  
int main()  
  
{char str1[10]="firozabad";  
  
char str2[10]="firozabad";  
  
int z=compare(str1,str2);  
  
if(z==0)
```

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```
{  
printf("two string are equal");  
}  
else  
{  
printf("two strings are not equal");  
}  
}  
int compare(char a[],char b[])  
{ int i=0,x;  
while(a[i]!='\0'&&b[i]!='\0')  
{if(a[i]==b[i])  
{x=0;  
i++;  
}  
else  
{x=1;  
}  
return x;  
}  
}  
error check//
```

pointer

Vansh section k

```
#include<stdio.h>

int main()

{int age=18;

printf("%p\n",&age);

int *ptr=&age;

printf("%p\n",ptr);

printf("%d",*ptr);

}
```

FUNCTION

To add to integer using a function of add

```
#include<stdio.h>

int sum(int a, int b);

int main()

{

int a,b;

printf("enter the value of two integer");

scanf("%d %d",&a,&b);

int x=sum(a,b);

printf("%d",x);

}

int sum(int a, int b)
```

Vansh section k

```
{  
int c=a+b;  
return c;  
}
```

To find of cube of any intger by using a function

```
#include<stdio.h>  
  
int cube(int a);  
  
int main()  
{  
int a;  
printf("enter the value of integer");  
scanf("%d",&a);  
int x=cube(a);  
printf(" the cube of  %d is %d",a,x);  
}  
  
int cube(int a)  
{ return a*a*a;  
}
```

To check wether a number is even or odd

```
#include<stdio.h>  
  
int eo(int a);  
  
int main()
```

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```
{  
int a;  
  
printf("enter the value of integer");  
  
scanf("%d",&a);  
  
int x=eo(a);  
  
if(x!=0){  
printf("even");  
  
}  
  
else{printf("odd");}  
  
}  
  
int eo(int a)  
{int c=1,d=0;  
  
if(a%2==0)  
  
{  
  
return c;  
  
}  
  
else  
  
{return d;  
  
}  
  
}
```

To find the area of a circle and diameter of a circle and circumference using a function

```
#include<stdio.h>  
  
float dia(float a);  
  
float area(float b);
```


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```
float cir(float c);

float main()

{

float r,a,b,c;

printf("enter the value radii ");

scanf("%f",&r);

float f=dia(r);

float g=area(r);

float h=cir(r);

printf("area is %f \n",g);

printf("dia is %f \n",f);

printf("cir is %f \n",h);

}

float dia(float a)

{float v=a*2;

return v ;

}

float area(float b)

{ return 3.14*b*b;

}

float cir(float c)

{return 2*3.14*c;

}
```

To find the grrestest between two integer

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```
#include<stdio.h>
```

```
int max(int a, int b);
```

```
int main()
```

```
{
```

```
int a,b;
```

```
printf("enter the value of two integer \n");
```

```
scanf("%d %d",&a,&b);
```

```
int x=max(a,b);
```

```
if(x==0)
```

```
{
```

```
printf("%d is greater than %d",a,b);
```

```
}
```

```
else{
```

```
printf("%d is greater than %d",b,a);
```

```
}
```

```
}
```

```
int max(int a, int b)
```

```
{int c;
```

```
if(a>b)
```

```
{c=0;
```

```
}
```

```
else{c=1;
```

```
}
```

```
return c;
```

```
}
```

printf

Vansh section k

To check whether a no is prime or not

```
#include<stdio.h>

int prime(int a);

int armstrong(int b);

int perfect(int c);

int main()

{

int a;

int x=prime(a);

if(x==0){

printf("prime");

}

else{ printf("not a prime no");}

}

int prime(int a)

{ int no,count=0,c=0,rem;

printf("enter the value of integer");

scanf("%d",&no);

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

{

rem=no%i;

if(rem==0)

{count++;

}

}

}
```

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```
if(count==2)
{
    return c;
}
}
```

2 D array

```
#include <stdio.h>

int main()
{
    int a[2][4],r,c;
    printf("enter r");
    scanf("%d",&r);
    printf("enter c");
    scanf("%d",&c);
    printf("enter the value of array are");
    for(int i=0;i<r;i++)
    {
        for(int j=0;j<c;j++)
        {
            scanf("%d",&a[i][j]);
        }
    }
    printf("the value of array are");
}
```

Vansh section k

```
for(int i=0;i<r;i++)
{
    for(int j=0;j<c;j++)
    {
        printf("%d",a[i][j]);
    }
    printf("\n");
}

return 0;
}
```

sum of two array by defining max max size of two arrays

```
#include <stdio.h>

#define MAX_ROWS 100
#define MAX_COLS 100

int main()
{
    int a[MAX_ROWS][MAX_COLS],r,c,b[MAX_ROWS][MAX_COLS];

    printf("enter r ");
    scanf("%d",&r);

    printf("enter c ");
    scanf("%d",&c);

    printf("enter the value of array a are");

    for(int i=0;i<r;i++)
    {
        for(int j=0;j<c;j++)
        {
            scanf("%d",&a[i][j]);
        }
    }
}
```

Vansh section k

```
}

printf("the value of array a are ");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{printf("%d",a[i][j]);

}

printf("\n");

}

printf("enter the value of array b");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{scanf("%d",&b[i][j]);

}

}

printf("the value of array b are");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{printf("%d",b[i][j]);

}

printf("\n");

}

printf("the sum of two array a and b are");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{printf("%d",a[i][j]+b[i][j]);

}

}
```

Vansh section k

```
printf("\n");  
}
```

```
    return 0;  
}
```

difference of two array by defining maximum size

```
#include <stdio.h>
```

```
#define MAX_ROWS 100
```

```
#define MAX_COLS 100
```

```
int main()
```

```
{ int a[MAX_ROWS][MAX_COLS],r,c,b[MAX_ROWS][MAX_COLS];
```

```
printf("enter r ");
```

```
scanf("%d",&r);
```

```
printf("enter c ");
```

```
scanf("%d",&c);
```

```
printf("enter the value of array a are");
```

```
for(int i=0;i<r;i++)
```

```
{ for(int j=0;j<c;j++)
```

```
{ scanf("%d",&a[i][j]);
```

```
}
```

```
}
```

```
printf("the value of array a are ");
```

```
for(int i=0;i<r;i++)
```

```
{ for(int j=0;j<c;j++)
```

```
{ printf("%d",a[i][j]);
```

```
}
```

Vansh section k

```
printf("\n");

}

printf("enter the value of array b");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{scanf("%d",&b[i][j]);

}

}

printf("the value of array b are");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{printf("%d",b[i][j]);

}

}

printf("\n");

}

printf("the difference of two array a and b are");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{printf("%d",a[i][j]-b[i][j]);

}

}

printf("\n");

}

return 0;

}
```


Vansh section k

sorting of array row wise in ascending

```
#include <stdio.h>

#define MAX_ROWS 100

#define MAX_COLS 100

int main()

{int a[MAX_ROWS][MAX_COLS],b[MAX_ROWS][MAX_COLS],r,c;

printf("enter r ");

scanf("%d",&r);

printf("enter c ");

scanf("%d",&c);

printf("enter the value of array a are");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{scanf("%d",&a[i][j]);

}

}

printf("the value of array a are ");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{printf("%d",a[i][j]);

}

printf("\n");

}

for (int i=0;i<r;++i)

{
```

Vansh section k

```
for (int j=0;j<c;++j)
{
for (int k=(j+1);k<c;++k)
{
if (a[i][j]>a[i][k])
{a[MAX_ROWS][MAX_COLS]=a[i][j];
a[i][j]=a[i][k];
a[i][k] = a[MAX_ROWS][MAX_COLS];
}
}
}
}

printf("after sorting row wise");

for (int i=0;i<r;++i)
{
for (int j=0;j<c;++j)
{
printf (" %d",a[i][j]);
}
printf ("\n");
}
}
```

sorting of array row wise in descending

```
#include <stdio.h>
```

```
#define MAX_ROWS 100
```

Vansh section k

```
#define MAX_COLS 100

int main()

{int a[MAX_ROWS][MAX_COLS],b[MAX_ROWS][MAX_COLS],r,c;

printf("enter r ");

scanf("%d",&r);

printf("enter c ");

scanf("%d",&c);

printf("enter the value of array a are");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{scanf("%d",&a[i][j]);

}

}

printf("the value of array a are ");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{printf("%d",a[i][j]);

}

printf("\n");

}

for (int i=0;i<r;++i)

{

for (int j=0;j<c;++j)

{

for (int k=(j+1);k<c;++k)

{
```

Vansh section k

```
if (a[i][j]<a[i][k])
{ a[MAX_ROWS][MAX_COLS]=a[i][j];
a[i][j]=a[i][k];
a[i][k] = a[MAX_ROWS][MAX_COLS];
}
}
}
}

printf("after sorting row wise");

for (int i=0;i<r;++i)
{
for (int j=0;j<c;++j)
{
printf (" %d",a[i][j]);
}

printf ("\n");
}
}
```

sorting column wise decsending

```
#include <stdio.h>

#define MAX_ROWS 100

#define MAX_COLS 100

int main()

{int a[MAX_ROWS][MAX_COLS],b[MAX_ROWS][MAX_COLS],r,c;
```

Vansh section k

```
printf("enter r ");
scanf("%d",&r);
printf("enter c ");
scanf("%d",&c);
printf("enter the value of array a are");
for(int i=0;i<r;i++)
{for(int j=0;j<c;j++)
{scanf("%d",&a[i][j]);
}
}
printf("the value of array a are ");
for(int i=0;i<r;i++)
{for(int j=0;j<c;j++)
{printf("%d",a[i][j]);
}
}
printf("\n");
}
for (int j=0;j<c;++j)
{
for (int i=0;i<r;++i)
{
for (int k=i+1;k<r;++k)
{
if (a[i][j] < a[k][j])
{
a[MAX_ROWS][MAX_COLS] = a[i][j];
```

Vansh section k

```
a[i][j] = a[k][j];  
a[k][j] =a[MAX_ROWS][MAX_COLS];  
  
}  
  
}  
  
}  
  
}  
  
for (int i=0;i<r;++i)  
{  
    for (int j=0;j<c;++j)  
    {  
        printf (" %d",a[i][j]);  
    }  
    printf ("\n");  
}  
}
```

sorting column wise ascending

```
#include <stdio.h>  
  
#define MAX_ROWS 100  
  
#define MAX_COLS 100  
  
int main()  
{  
    int a[MAX_ROWS][MAX_COLS],b[MAX_ROWS][MAX_COLS],r,c;  
  
    printf("enter r ");  
  
    scanf("%d",&r);  
  
    printf("enter c ");
```

Vansh section k

```
scanf("%d",&c);

printf("enter the value of array a are");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{scanf("%d",&a[i][j]);

}

}

printf("the value of array a are ");

for(int i=0;i<r;i++)

{for(int j=0;j<c;j++)

{printf("%d",a[i][j]);

}

printf("\n");

}

for (int j=0;j<c;++j)

{

for (int i=0;i<r;++i)

{

for (int k=i+1;k<r;++k)

{

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

{

a[MAX_ROWS][MAX_COLS] = a[i][j];

a[i][j] = a[k][j];

a[k][j] =a[MAX_ROWS][MAX_COLS];

}

}
```

Vansh section k

```
}  
  
}  
  
}  
  
for (int i=0;i<r;++i)  
  
{  
  
for (int j=0;j<c;++j)  
  
{  
  
printf (" %d",a[i][j]);  
  
}  
  
printf ("\n");  
  
}  
  
}
```

multiplication of two matrices

```
#include <stdio.h>  
  
#define MAX_ROWS 100  
  
#define MAX_COLS 100  
  
int main()  
  
{int  
r1,r2,c1,c2,r,c,a[MAX_ROWS][MAX_COLS],i,j,k,sum=0,b[MAX_ROWS][MAX_COLS],mul[MAX_ROWS][MAX_COLS];  
  
printf("enter value of row for a matrices ");  
  
scanf("%d",&r1);  
  
printf("enter value of column for a matrices ");  
  
scanf("%d",&c1);  
  
printf("enter value of row for b matrices ");
```


Vansh section k

```
scanf("%d",&r2);

printf("enter value of column for b matrices ");

scanf("%d",&c2);

printf("enter the value of array a are");

for(i=0;i<r1;i++)

{ for(j=0;j<c1;j++)

{ scanf("%d",&a[i][j]);

}

}

printf("the value of array a are ");

for(i=0;i<r1;i++)

{ for(j=0;j<c1;j++)

{ printf("%d",a[i][j]);

}

}

printf("\n");

}

printf("enter the value of array b");

for(i=0;i<r2;i++)

{ for(j=0;j<c2;j++)

{ scanf("%d",&b[i][j]);

}

}

printf("the value of array b are");

for(i=0;i<r2;i++)

{ for(j=0;j<c2;j++)

{ printf("%d",b[i][j]);
```

Vansh section k

```
}  
  
printf("\n");  
  
}  
  
if(r1==c2)  
  
{  
  
r=r1;  
  
c=c2;  
  
printf("the product of two array a and b are");  
  
for(i=0;i<r;i++)  
  
{ for(j=0;j<c;j++)  
  
{ for(k=0;k<r;k++)  
  
{ sum=sum+(a[i][k]*b[k][j]);  
  
}  
  
mul[i][j]=sum;  
  
sum=0;  
  
}  
  
}  
  
printf("the multiplication of a and b are");  
  
for(i=0;i<r;i++)  
  
{ for(j=0;j<c;j++)  
  
{ printf("%d",mul[i][j]);  
  
}  
  
printf("\n");  
  
}  
  
}  
  
else
```

Vansh section k

```
{printf("multiplication is not paossible of these two matrices");
```

```
}
```

```
}
```