**PROGRAM: TO PRINT Hello World**

#include<stdio.h>

void main()

{

printf(“Hello World”);

}

**OUTPUT:** Hello World

**RESULT:** A C program to print Hello World has been successfully compiled.

**PROGRAM: Sum of two numbers**

#include<stdio.h>

void main()

{

int a,b,c;

printf(“Enter two values”);

scanf(“%d,%d”,&a,&b);

c=a+b;

printf(“Sum is %d”,&c);

}

**OUTPUT:** Enter two values 5

10

Sum is 15

**RESULT:** A C program to print sum of two numbers has been successfully compiled.

**PROGRAM: To find simple interest**

#include<stdio.h>

void main()

{

float p,r,t,si;

printf(“Enter values for principle, rate and time”);

scanf(“%f,%f,%f”,&p,&r,&t);

si=p\*r\*t/100.0;

printf(“The simple interest is %f”,&si);

}

**OUTPUT:** Enter values for principle, rate and time

1000

20

5

The simple interest is 1000.000000

**RESULT:** A C program to print simple interest has been successfully compiled.

**PROGRAM: Area and circumference of a circle**

#include<stdio.h>

void main()

{ int r;

float a,c;

printf("Enter the value of radius");

scanf("%d",&r);

a=3.14\*r\*r;

c=2\*3.14\*r;

printf("The circumference is %f and area is %f",c,a);

}

**OUTPUT:** Enter the value of radius 12

The circumference is 75.360001 and area is 452.160004

**RESULT:** A C program to print Area and circumference of acirclehas been successfully compiled.

**PROGRAM: Sum and average of 5 numbers**

#include<stdio.h>

void main()

{ int a,b,c,d,e,s;

float avg;

printf("Enter the five values");

scanf("%d%d%d%d%d”,&a,&b,&c,&d,&e);

s=a+b+c+d+e;

avg=s/5.0;

printf("The sum is %d",s);

printf("The average is %f",avg);

}

**OUTPUT:** Enter the five values 95

95

94

81

99

The sum is 464 The average is 92.800003

**RESULT:** A C program to print Sum and average of 5 numbershas been successfully compiled.

**PROGRAM: Swapping numbers-WITH TEMP VARIABLE**

#include<stdio.h>

void main()

{ int a,b,temp;

printf("\n Enter the values for a and b");

scanf("%d%d”,&a,&b);

printf("Before swapping a= %d and b=%d,a,b);

temp=a;

a=b;

b=temp;

printf("After swapping a= %d and b= %d",a,b);

}

**OUTPUT:** Enter the values for a and b 10

20

Before swapping a=10 and b=20

After swapping a=20 and b=10

**RESULT:** A C program to print Swapping of numbers-WITH TEMP VARIABLE numbershas been successfully compiled.

**WITHOUT TEMP VARIABLE**

#include<stdio.h>

void main()

{ int a,b;

printf("Enter the values for a and b);

scanf("%d%d”,&a,&b);

printf("Before swapping a= %d and b=%d,a,b);

a=a+b;

b=a-b;

a=a-b;

printf("After swapping a= %d and b= %d",a,b);

}

**OUTPUT:** Enter the values for a and b 10

30

Before swapping a=10 and b=30

After swapping a=30 and b=10

**RESULT:** A C program to print Swapping of numbers-WITHOUT TEMP VARIABLE numbershas been successfully compiled.

**PROGRAM: Greatest of three numbers**

**USING CONDITIONAL OPERATOR**

#include<stdio.h>

void main()

{ int a,b,c;

printf("Enter three numbers");

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

a>=b&&b>c? printf("a= %d is greatest",a): b>a&&b>=c? printf("b= %d is greatest",b): printf("c=%d is greatest,c);

}

**OUTPUT:** Enter three number 10

20

30

c=30 is greatest

**RESULT:** A C program to print Greatest of three numbers using conditional operator has been successfully compiled.

**USING IF-ELSE**

#include<stdio.h>

void main()

{ int a,b,c;

printf("Enter three numbers");

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

if(a>=b&&b>c)

printf("a= %d is greatest",a);

else if(b>a&&b>=c)

printf("b= %d is greatest",b);

else

printf("c=%d is greatest,c);

}

**OUTPUT:** Enter three numbers 10

20

30

c=30 is greatest

**RESULT:** A C program to print Greatest of three numbers using IF-ELSE has been successfully compiled.

**PROGRAM: To count number of vowels and digits**

#include<stdio.h>

void main()

{ int vc=0,dc=0,i;

char s[100],ch;

printf("Enter the string");

gets(s);

for(i=0; s[i]!='\0'; i++)

{ ch=s[i];

switch(ch)

{ case 'a':

case 'e':

case 'i':

case 'o':

case 'u':

case 'A':

case 'E':

case 'I':

case 'O':

case 'U': vc++; break;

case '0':

case '1':

case '2':

case '3':

case '4':

case '5':

case '6':

case '7':

case '8':

case '9': dc++;

}

}

printf("The number of vowels is %d",vc);

printf("The number of digits is %d",dc);

}

**OUTPUT:** Enter the string Hitoall123

The number of vowels 3

The number of digits 3

**RESULT:** A C program to print count of vowels and digits has been successfully compiled.

**PROGRAM: To calculate sum of digits**

#include<stdio.h>

void main()

{ int a,n,s=0;

printf("Enter the number");

scanf("%d",&a);

while(a!=0)

{ n=a%10;

s+=n;

a/=10;

}

printf("The sum is %d",s);

}

**OUTPUT:** Enter the number 123

The sum is 6

**RESULT:** A C program to print calculation of sum of digits has been successfully compiled.

**PROGRAM: To print the prime numbers**

#include<stdio.h>

void main()

{ int n,i,j,cl

printf("Enter the limit");

scanf("%d",&n);

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

{ c=0;

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

{ if(i%j==0)

c++;

}

if(c==2)

printf("%d",i);

}

}

**OUTPUT:** Enter the limit 6

2 3 5

**RESULT:** A C program to print the prime numbers has been successfully compiled.

**PROGRAM: To print Fibonacci series**

#include<stdio.h>

void main()

{ int a=0,b=1,c,n,ct=3;

printf(Enter the numbers of terms greater than 3");

scanf("%d",&n);

printf("\n The Fibonacci series is: ");

printf("%d %d",a,b);

do

{ ct++;

c=a+b;

a=b;

b=c;

printf("%d",c);

} while(ct<=n);

}

**OUTPUT:** Enter the number of terms greater than 35 The Fibonacci series is: 0 1 1 2 3

**RESULT:** A C program to print Fibonacci series has been successfully compiled.

**PROGRAM: To find factorial using functions**

#include<stdio.h>

int facto(int);

void main()

{ int a,b;

printf("Enter the number");

scanf("%d",&a);

b=facto(a);

printf("Factorial is: %d",b);

}

int facto(int a)

{ int f=1;

while(a>=1)

{ f=f\*a;

a--;

}

return f;

}

**OUTPUT:** Enter the number10

Factorial is: 3628800

**RESULT:** A C program to print factorial of a number using functions has been successfully compiled.

**PROGRAM: Addition of Matrix**

#include<stdio.h>

void main()

{ int a[10][10], b[10][10],c[10][10],n,i,j; printf("Enter dimension"); scanf("%d",&n);

printf("Enter matrix 1");

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

for(j=0;j<n;j++)

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

printf("\nEnter matrix 2");

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

for(j=0;j<n;j++) scanf("%d",&b[i][j]);

printf("\nThe sum is \n");

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

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

{ c[i][j]=a[i][j]+b[i][j];

printf("%d ",c[i][j]); }

printf("\n");

}

}

**OUTPUT:** Enter dimension2

Enter matrix 1 4

5

6

7

Enter matrix 2 1

2

3

4

The sum is

5 7

9 11

**RESULT:** A C program to print addition of matrix has been successfully compiled.

**PROGRAM: Multiplication Of Matrix**

#include<stdio.h>

void main()

{ int a[10][10], b[10][10],c[10][10],n,i,j,k;

printf("Enter dimension");

scanf("%d",&n);

printf("Enter matrix 1");

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

for(j=0;j<n;j++)

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

printf("\nEnter matrix 2");

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

for(j=0;j<n;j++)

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

printf("\nThe product is \n");

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

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

{ c[i][j]=0;

for(k=0;k<n;k++)

c[i][j]+=a[i][k]\*b[k][j];

printf("%d ",c[i][j]); }

printf("\n");

}

}

**OUTPUT:** Enter dimension2

Enter matrix 1 2

3

4

Enter matrix 2 5

6

7

8

The product is

19 22

43 50

**RESULT:** A C program to print multiplication of matrix has been successfully compiled.

**PROGRAM: Transpose of Matrix**

#include<stdio.h>

void main()

{ int a[10][10],n,i,j;

printf("Enter dimension");

scanf("%d",&n);

printf("Enter matrix");\

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

for(j=0;j<n;j++)

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

printf("Transpose is \n");

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

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

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

printf("\n");}

}

**RESULT:** Enter dimension3

Enter matrix 1

2

3

4

5

6

7

8

9

Transpose is

1 4 7

2 5 8

3 6 9

**RESULT:** A C program to print transpose of matrix has been successfully compiled.

**PROGRAM: Check whether the string is Palindrome**

#include<stdio.h>

#include<string.h>

void main()

{ char s[100];

int i,k=0,n;

gets(s);

n=strlen(s);

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

{ if(s[i]!=s[n-1-i])

{ printf("Not pallindrome"); k=1; break;}

}

if(k==0)

printf("Pallindrome");

}

**OUTPUT:** noon

Pallindrome

**RESULT:** A C program to print Palindrome of a string has been successfully compiled.

**PROGRAM: Value Change in Static Increment**

#include<stdio.h>

void main()

{ void f1();

printf("After the first call");

f1();

printf("\n After the second call");

f1();

printf("\n After the third call");

f1();

}

void f1()

{ static int k=0;

int j=10;

printf("k= %d j= %d",k,j);

k+=10;

j+=10;

}

**OUTPUT:** After the first callk=0 j=10

After the second callk=10 j=10

After the third callk=20 j=10

**RESULT:** A C program to print value change in static increment has been successfully compiled.

**PROGRAM:**

#include <stdio.h>

#include <string.h>

void main()

{

char a[100], b[20][20];

int i, j = 0, k = 0, n, m;

printf("enter the string\n");

gets(a);

for (i = 0;a[i] != '\0';i++) {

if (a[i] == ' ')

{

b[k][j] = '\0';

k++;

j = 0;

}

else

{

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

j++;

}

}

b[k][j] = '\0';

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

{

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

{

if (strcmp(b[i], b[j]) == 0)

{

for (m = j;m <= k;m++)

strcpy(b[m], b[m + 1]);

k--;

}

}

}

for (n = 0;n <= k;n++)

{

printf("%s ", b[n]);

}

}

**OUTPUT:** enter the string

hi this this is

hi this is

**RESULT:**