Program 1

AIM: Write a program in C for addition of two numbers.

Source Code:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b,c;
clrscr();
printf("\nEnter the first number:");
scanf("%d",&a);
printf("Enter the second number:");
scanf("%d",&b);
c=a+b;
printf("Sum of two numbers=%d",c);
getch();
}
```

Test Data: a = 40 and b=50 So, c=a+b ie 90

Output:

```
Enter the first number:40
Enter the second number:50
Sum of two numbers=90
```

Program 2

AIM: Calculate Simple Interest for a set of values representing principal, number of years and rate of interest.

Source Code:-

```c
#include<stdio.h>
#include<conio.h>
void main()
{
int p,n;
double r,si;
clrscr();
printf("Enter the principal amount:");
scanf("%d",&p);
printf("Enter the number of years:");
scanf("%d",&n);
printf("Enter the rate of interest:");
scanf("%lf",&r);
si=(p*n*r)/100;
printf("simple interest=%lf",si);
getch();
}
```

Test Data:- Principal = 5000 , No. of years = 2 and Rate = 5%

Output:

```
Enter the principal amount:5000
Enter the number of years:2
Enter the rate of interest:5
simple interest=500.000000_
```

Program 3

AIM: Ramesh's basic salary is input through the keyboard his dearness allowance is 40% of basic salary and house rent allowance is 20% of basic salary. Write a program to find his gross salary.

Source Code:

```
#include<stdio.h>
#include<conio.h>
void main()
{
long int bs,da,r,gs;
clrscr();
printf("\nEnter Ramesh's basic salary:");
scanf("%ld",&bs);
da=bs*40/100;
r=bs*20/100;
printf("\tDearness allowance=%d",da);
printf("\n\tHouse rent=%d",r);
gs=bs+da+r;
printf("\n\tGross salary=%d",gs);
getch();
}
```

Test Data: basic salary is 7000 and the gross salary is 11200(2800+1400+7000)

Output:

```
Enter Ramesh's basic salary:7000
        Dearness allowance=2800
        House rent=1400
        Gross salary=11200_
```

Program 4

AIM: The length and breadth of rectangle and radius of a circle are input through the keyboard. Write a program to calculate the area and perimeter of a rectangle and the area and circumference of a circle.

Source Code: –

```
#include<stdio.h>
#include<conio.h>
int main(){
float l,b,r,p,a,c,ca;
clrscr();
printf("\nEnter the length of the rectangle:");
scanf("%f",&l);
printf("Enter the breadth of the rectangle:");
scanf("%f",&b);
printf("Enter the radius of the circle:");
scanf("%f",&r);
p=(l+b)*2;
a=l*b;
printf(" \nPerimeter=%f",p);
printf(" \nArea of rectangle=%f",a);
c=2*3.14*r;
ca=3.14*r*r;
printf(" \nCircumference=%f",c);
printf(" \nArea of circle=%f",ca);
getch();
}
```

Test Data: length and breadth is 25 and radius is 52

Output:

```
   Enter the Length and BreadthEnter the radius of a circle if you want25
   52
   3.5
   The Perimiter of Rectangle is.. 154.000000The area of rectangle is.. 1300.000000
   The Circumference is.. 21.980000The Area of a circle is.. 38.465000_
```

Program 5. Temperature of a city in Fahrenheit degree is input through the keyboard. Write a program to convert this temperature into Celsius degree.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
Float c,f;
Clrscr();
printf("Enter the Temperature in Farehniet");
scanf("%f",&f);
C=(f-32)*5/9;
printf("The temperature in celsius %f",C);
Getch();
}
```

Test Code: - Fahrenheit Temperature is 50 and it will convert this into Celsius ie 10.

Output:-

```
Enter the Temprature in Farehniet50
The temprature in celsius 10.000000
```

Program 6. Write a program to find the greatest number between 3 numbers given by the user.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main(){
    int a,b,c;
    printf("Enter the 1st numbers \n");
    printf("Enter the 2nd numbers \n");
    printf("Enter the 3rd numbers \n");
    scanf("%d %d %d",&a,&b,&c);
    if (a>b && a>c){
        printf("A is greater %d",a);
    }
    if (b>a && b>c){
        printf("B is greater %d",b);
    }
    if (c>a && c>b){
        printf("C is greater %d",c);
    }
    getch();
}
```

Test Code: - A is 10, B is 20 and C is 30. So, C is greater.

Output: -

```
Enter the 1st numbers
Enter the 2nd numbers
Enter the 3rd numbers
10
20
30
C is greater 30

...Program finished with exit code 0
Press ENTER to exit console.
```

Program 7. If quantity purchased is more than 1000 then the discount of 10% is offered. If price and quantity input through the keyboard, Write a program to calculate total expenditure

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
long int p,q;
double tp,dp,fp;
clrscr();
printf("Enter the Quantity and Price");
scanf("%ld %ld",&q,&p);
tp=p*q;
dp=(tp*10)/100;
fp=tp-dp;
if(q>1000){
printf("The Discounted price is %lf",fp);
}
else{
printf("The Final price is %lf",tp);
}
getch();
}
```

Test Code: - Quantity and price is 1200 and 30. Price before discount is 36000 and after discount it is 32400.

Output:-

```
Enter the Quantity and Price1200
30
The Discounted price is 32400.000000
```

Program 8. Write a program to swap two numbers using a third variable.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main(){
int a,b,temp;
clrscr();
printf("Enter the 2 numbers");
scanf("%d %d",&a,&b);
temp=a;
a=b;
b=temp;
printf("The Swap value is %d%d",a,b);
getch();
}
```

Test Code: - 2 numbers are 9 and 2 then the numbers after swapped is 2 and 9.

Output:-

```
Enter the 2 numbers9
2
The Swap value is 29
```

Program 9. Two number input through the keyboard into 2 location. Write a program to interchange the contents of C and D.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main(){
int c,d;
clrscr();
printf("Enter the 2 numbers");
scanf("%d %d",&c,&d);
c=c+d;
d=c-d;
c=c-d;
printf("The interchange value is %d%d",c,d);
getch();
}
```

Test Code: - c=2 and d=4 So, the interchange value is 42.

Output: -

```
Enter the 2 numbers2
4
The interchange value is 42
```

Program 10. Write a program to input 5 digit number from keyboard and print its sum of a digits.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main(){
long int n,r1,r2,r3,r4,n1,n2,n3,n4,n5,sum;
clrscr();
printf("Enter 5 digit number");
scanf("%ld",&n);
r1=n%10; //5
n2=n/10; //1234
r2=n2%10; //4
n3=n2/10; //123
r3=n3%10; //3
n4=n3/10; //12
r4=n4%10; //2
n5=n4/10; //1
sum=r1+r2+r3+r4+n5;
printf("The Sum of the digits %ld",sum);
getch();
}
```

Test Code: - The 5 digit number is 67924. So, the sum of the digits is 28.

Output: -

```
Enter 5 digit number67924
The Sum of the digits 28_
```

Program 11:- Write a program to input through the keyboard and print the number in reverse order.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
long int f,w,r,n,h,r1,r2,r3,r4,rev;
printf("Enter 5 digit number");
scanf("%ld",&n);
r=n%10; //5
w=n/10; //1234
r1=w%10; //4
f=w/10; //123
r2=f%10; //3
h=f/10; //12
r3=h%10; //2
r4=h/10; //1
rev=r*10000+r1*1000+r2*100+r3*10+r4;
printf("Reverse no. %ld",rev);
getch();
}
```

Test Code:- The number which is input is. 12345 and the final outcome is 54321.

Output:-

```
C:\TURBOC3\BIN>TC
Enter 5 digit number12345
Reverse no. 54321_
```

Program 12. If an employee basic salary is less than 1500 then House rent allowance will be 10% and Dearness allowance 90% of basic salary, if his salary is either equal to or above 1500 then house rent allowance will be Rs.500 and dearness allowance 98% of basic salary. If the salary is input through the keyboard then write a program to find his gross salary.

Source Code:-

```
#include<stdio.h>
#include<conio.h>
void main(){
double bs;
double hra,da,gs;
clrscr();
printf("Enter the Salary");
scanf("%lf",&bs);
if (bs<1500){
hra=(bs*10)/100;
da=(bs*90)/100;
gs=bs+hra+da;
printf("The gross salary is..%lf",gs);
}
if (bs>=1500){
hra=500;
da=(bs*98)/100;
gs=bs+hra+da;
printf("The gross salary is..%lf",gs);
}
getch();
}
```

Test Code:- basic salary is 1600 and the gross salary is.. 3668

Output:-

```
    Enter the Salary1600
    The gross salary is..3668.000000
```

Program 13. Write a program to check if a given no. is odd or even.

Source Code:-

```c
#include<stdio.h>
#include<conio.h>
void main(){
int a;
printf("Enter the number");
scanf("%d",&a);
if (a%2==0){
printf("It is even");
}
else {
printf("It is odd");
}
getch();
}
```

Test Code:- A=34 So it is even and then A=45 it is odd..

Output:-

```
    Enter the number 34
    It is evenEnter the number45
    It is odd_
```

Program 14. Write a program to check if a given number is prime or not.

Source Code:-

```c
#include<stdio.h>
#include<conio.h>
void main(){
int a,count=0,i;
printf("Enter the number");
scanf("%d",&a);
for(i=1;i<=a;i++)
{
if(a%i==0){
count++;
}
}
if(count==2){
printf("prime");
}
else{
printf("not prime");
}
getch();
}
```

Test Code:- we enter 57 so it is not prime number and 17 which is a prime number.

Output:-

```
Enter the number57
not prime_
```

```
Enter the number17
prime
```
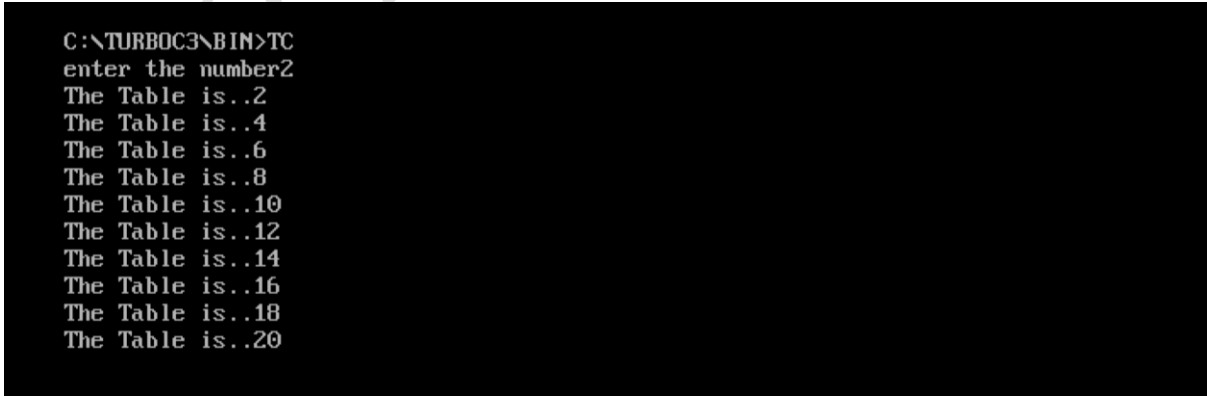
Program 15. Write a program to input a number and print its table.

Source Code:-

```c
#include<stdio.h>
#include<conio.h>
void main(){
int a,i,m;
printf("enter the number");
scanf("%d",&a);
for (i=1;i<=10;i++)
{
m=a*i;
printf("The Table is..%d\n",m);
}
getch();
}
```

Test Code: - 2

Output:-

```
C:\TURBOC3\BIN>TC
enter the number2
The Table is..2
The Table is..4
The Table is..6
The Table is..8
The Table is..10
The Table is..12
The Table is..14
The Table is..16
The Table is..18
The Table is..20
```

Program 16. Write a program to check if a given no. is odd or even with using turnary operator.

Source Code:-

```
#include<stdio.h>
#include<conio.h>
void main(){
int a,i;
printf("\nEnter the Number\n");
scanf("%d",&a);
(a%2==0)?printf("It is even"):printf("It is odd");
getch();
}
```

Test Code: - 45 and 68

Output:-

```
Enter the Number
45
It is odd
Enter the Number
68
It is even_
```

Program 17. Write a program to print the table of any number using while loop.

Source Code:-

```
#include<stdio.h>
#include<conio.h>
void main(){
int a,i=1;
clrscr();
printf("Enter the Number");
scanf("%d",&a);
while(i<=10){
printf("table..%d\n",a*i);
i++;
}
getch();
}
```

Test Code: - 4

Output:-

```
Enter the Number4
table..4
table..8
table..12
table..16
table..20
table..24
table..28
table..32
table..36
table..40
```

Program 18.

Write a program to find the average of six subjects and display the results as follows.

```
AVERAGE                                   RESULT
>=35 & <50                                Third Division
>=50 & <60                                Second Division
>=60 & <75                                First Division
>=75 & <=100                              Distinction
If marks in any subject less than 35      Fail
```

Source Code:-

```c
#include<stdio.h>
#include<conio.h>
void main(){
int s1,s2,s3,s4,s5,s6;
float avg,sum;
printf("Enter the marks of the subjects");
scanf("%d %d %d %d %d %d",&s1,&s2,&s3,&s4,&s5,&s6);
sum=s1+s2+s3+s4+s5+s6;
avg=sum/6;
if (s1<35||s2<35||s3<35||s4<35||s5<35||s6<35){
printf("fail");
}
else{
if(avg>=35 && avg<50){
printf("3rd division");
}
else if (avg>=50 && avg<60){
printf("2nd division");
}
else if (avg>=60 && avg<=100){
printf("1st division");
}
else if (avg>=75 && avg<=100){
printf("distinction");
}
}
getch();
}
```

Output:-

```
Enter the marks of the subjects98
99
89
97
87
82
1st division
```
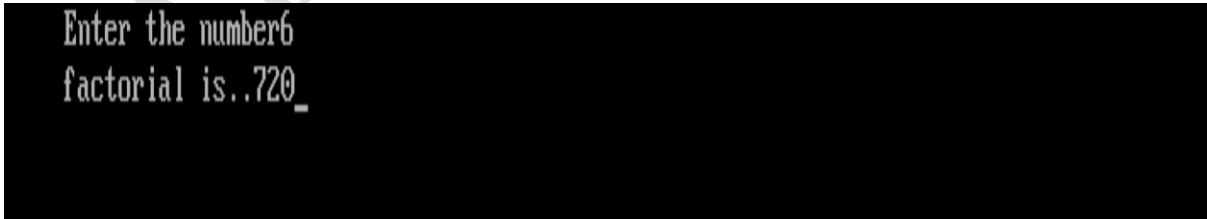
Program 19. Write a program to find a factorial value of any number enter through the keyboard.

Source Code:-

```
#include<stdio.h>
#include<conio.h>
void main(){
int a,i,f=1;
clrscr();
printf("Enter the number");
scanf("%d",&a);
for(i=1;i<=a;i++)
{
f=i*f;
}
printf("factorial is..%d",f);
getch();
}
```

Test Code: - 6

Output:-

```
Enter the number6
factorial is..720_
```

Program 20. Write a program to print all Armstrong no. between 1 and 500.

Source Code:-

```c
#include<stdio.h>
#include<conio.h>
void main(){
int a,sum=0,n,temp;
printf("enter the number");
scanf("%d",&n);
temp=n;
while(n>0)
{
a=n%10; //153 so 3
sum=sum+(a*a*a);
n=n/10;//153 so n will be 15
}
if (temp==sum){
printf("yes it is armstrong");
}
else{
printf("no");
}
getch();
}
```

Test Code: - 370

Output:-

```
C:\TURBOC3\BIN>TC
enter the number370
yes it is armstrongenter the number
123

no
```

Program 21. Two number are entered through the keyboard write a program to find value of one no. raised to another no..

Source Code:-

```c
#include<stdio.h>
#include<conio.h>
void main(){
int p,n,temp=1,i;
printf("enter the number\n");
scanf("%d",&n);
printf("enter the power\n");
scanf("%d",&p);
for(p;p>0;p--){
temp=temp*n;
//p- - for while loop
}
printf("%d",temp);
getch();
```

Test Code: - Number is 5 and power is 3

Output:-

```
enter the number
5
enter the power
3
125
```

Program 22. Write a program to print all the odd and even numbers from 1 to 100.

Source Code:-

```c
#include<stdio.h>
#include<conio.h>
void main(){
 clrscr();
 for(int i=1;i<=100;i++){
 if(i%2==0){
  printf("Even No.%d\t",i);
 }
 else{
 printf("Odd No.%d\t",i);
 }
 }
getch();
}
```

Output:-

```
 Odd No.1        Even No.2       Odd No.3        Even No.4       Odd No.5
 Even No.6       Odd No.7        Even No.8       Odd No.9        Even No.10
 Odd No.11       Even No.12      Odd No.13       Even No.14      Odd No.15
 Even No.16      Odd No.17       Even No.18      Odd No.19       Even No.20
 Odd No.21       Even No.22      Odd No.23       Even No.24      Odd No.25
 Even No.26      Odd No.27       Even No.28      Odd No.29       Even No.30
 Odd No.31       Even No.32      Odd No.33       Even No.34      Odd No.35
 Even No.36      Odd No.37       Even No.38      Odd No.39       Even No.40
 Odd No.41       Even No.42      Odd No.43       Even No.44      Odd No.45
 Even No.46      Odd No.47       Even No.48      Odd No.49       Even No.50
 Odd No.51       Even No.52      Odd No.53       Even No.54      Odd No.55
 Even No.56      Odd No.57       Even No.58      Odd No.59       Even No.60
 Odd No.61       Even No.62      Odd No.63       Even No.64      Odd No.65
 Even No.66      Odd No.67       Even No.68      Odd No.69       Even No.70
 Odd No.71       Even No.72      Odd No.73       Even No.74      Odd No.75
 Even No.76      Odd No.77       Even No.78      Odd No.79       Even No.80
 Odd No.81       Even No.82      Odd No.83       Even No.84      Odd No.85
 Even No.86      Odd No.87       Even No.88      Odd No.89       Even No.90
 Odd No.91       Even No.92      Odd No.93       Even No.94      Odd No.95
 Even No.96      Odd No.97       Even No.98      Odd No.99       Even No.100
```

Program 23. Write a program to calculate the salary of three persons the given data basic salary is input through the keyboard. House rent allowance and dearness allowance 90% and 10% of basic salary. Calculate gross salary.

Source Code:-

```
#include<stdio.h>
#include<conio.h>
void main()
{ int bs,hr,dr,gs,i=1;
clrscr();
while(i<=3)
{ printf("\nEnter the basic salary of the employee:");
scanf("%d",&bs);
hr=0.90*bs;
dr=0.10*bs;
gs=hr+dr+bs;
printf("Gross salary of the employee:%d",gs);
i++;}
getch();
}
```

Test Code: - 7000 of 1st , 2nd 8000 and 3rd is 6000

Output:-

```
Enter the basic salary of the employee:7000
Gross salary of the employee:14000
Enter the basic salary of the employee:8000
Gross salary of the employee:16000
Enter the basic salary of the employee:6000
Gross salary of the employee:12000
```

Program 24. Write a program to find if the number is factorial, Prime or not, odd or even and exit using switch case.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
int choice,n,i,fact,count=0;
printf("Enter the Number");
scanf("%d",&n);
printf("\nPress 1 for factorial");
printf("\nPress 2 for prime or not");
printf("\nPress 3 for odd and even");
printf("\nPress 4 for exit");
scanf("%d",&choice);
switch(choice){
case 1:
fact=n;
for(i=1;i<n;i++){
fact=fact*i;
}
printf("factorial is..%d",fact);
break;
case 2:
for (i=1;i<=n;i++){
if(n%i==0){
count++;
}
}
if (count==2)
printf("prime");
else
printf("not");
break;
case 3:
if (n%2==0){
printf("even");
}
else {
printf("odd");
}
break;
case 4:
break;
default:
printf("you have entered wrong choice");
}
getch();
}
```

Test Code: - 10 and 7

Output:-

```
Enter the Number10

Press 1 for factorial
Press 2 for prime or not
Press 3 for odd and even
Press 4 for exit1
factorial is..3628800
Enter the Number7

Press 1 for factorial
Press 2 for prime or not
Press 3 for odd and even
Press 4 for exit2
prime
Enter the Number6

Press 1 for factorial
Press 2 for prime or not
Press 3 for odd and even
Press 4 for exit3
even
```

Program 25. Write a menu driven program to construct a calculator for following arithmetic operations: Addition, Subtraction, Multiplication, division, average and percentage.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
int av,p,e,sum,per,a,b;
clrscr();
printf("Enter the Number");
scanf("%d %d",&a,&b);
printf("Press 1 for addition");
printf("\nPress 2 for subtraction");
printf("\nPress 3 for multiplication");
printf("\nPress 4 for division");
printf("\nPress 5 for average");
printf("\nPress 6 for percentage");
scanf("%d",&e);
switch(e)
{
case 1:
printf("Addition=%d",a+b);
break;
case 2:
printf("Subtraction=%d",a-b);
break;
case 3:
printf("Multiplication=%d",a*b);
break;
case 4:
printf("Division=%d",a/b);
break;
case 5:
av=(a+b)/2;
printf("Average=%d",av);
break;
case 6:
p=(a+b/2)*100;
printf("The Percentage=%d",p);
default:
printf("wrong input");
}
getch();
}
```

Output:-

```
Enter the Number34 56
Press 1 for addition
Press 2 for subtraction
Press 3 for multiplication
Press 4 for division
Press 5 for average
Press 6 for percentage1
Addition=90_
```

Program 26.
The distance between two cities in km is input through the keyboard write a program to convert and print the distance in meter, feet, inches and centimeters.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main()
{
float km,m,cm,i,f;
clrscr();
printf("\n\tEnter the distance in kilometres=");
scanf("%f",&km);
m=1000*km;
cm=m*100;
i=cm/2.54;
f=i/12;
printf("\n\t\tDistance in metres=%f",m);
printf("\n\t\tDistance in centimetres=%f",cm);
printf("\n\t\tDistance in inches=%f",i);
printf("\n\t\tDistance in feets=%f",f);
getch();
}
```

Test code: distance in km=86, distance in metres=86000, distance in centimetres=8600000,

Distance in inches=3385826.75, distance in feets=282152.218750

Output:-

```
Enter the distance in kilometres=86

          Distance in metres=86000.000000
          Distance in centimetres=8600000.000000
          Distance in inches=3385826.750000
          Distance in feets=282152.218750
```

Program 27. Write a menu driven program to perform the following operations:

(1) Print Armstrong numbers up to N,

(2) Display prime numbers between 1 to N

(3) Reverse of an integer

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main()
{
int choice,n,rev=0,rem,i,fact,j,max,r,sum,arm;
printf("press 1 to find armstrong no ");
printf("\npress 2 to find out prime upto N");
printf("\npress 3 to reverse a integer");
printf("\npress 4 to exit");
scanf("%d",&choice);
switch(choice){
case 1:
printf("enter range to print armstrong no.");
scanf("%d",&max);
for(i=1;i<=max;i++){
n=i;
arm=i;
sum=0;
while(n!=0){
r=n%10;
sum+=r*r*r;
n=n/10;
if(sum==arm)
printf("%d\n",sum);
}
}
break;
```

```
case 2:
printf("enter a number to print prime number");
scanf("%d",&n);
printf("prime number:\n");
for(i=1;i<=n;i++){
fact=0;
for(j=1;j<=i;j++){
if(i%j==0)
fact++;
}
if(fact==2)
printf("%d\n",i);}
break;
case 3:
printf("Enter a integer");
scanf("%d",&n);
while(n>0){
rem=n%10;
rev=rev*10+rem;
n=n/10;
}
printf("reversed integer=%d",rev);
break;
case 4:
break;
}
getch();
}
```

Test Code: 2 and prime numbers upto 20

Output:-

```
press 1 to find armstrong no
press 2 to find out prime upto N
press 3 to reverse a integer
press 4 to exit2
enter a number to print prime number20
prime number:
2
3
5
7
11
13
17
19
```

Program 28. Write a program in C to swap two numbers using Call by value.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void swap(int x,int y);
void main(){
int a,b;
printf("Enter the 2 numbers");
scanf("%d %d",&a,&b);
swap(a,b);
getch();
}
void swap(int x,int y){
int temp;
temp=x;
x=y;
y=temp;
printf("The Swap value of A and B is %d and %d",x,y);
}
```

Output:-
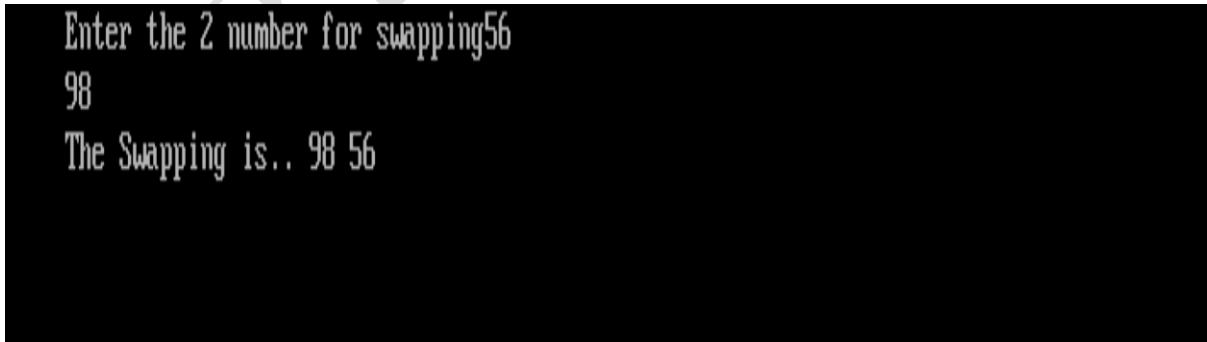
```
Enter the 2 numbers67
87
The Swap value of A and B is 87 and 67
```

Program 29. Write a program in C to swap two numbers using Call by reference.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void swap(int *x,int *y);
void main(){
int a,b;
clrscr();
printf("Enter the 2 number for swapping");
scanf("%d %d",&a,&b);
swap(&a,&b);
getch();
}
void swap(int *x,int *y){
int *temp;
temp=x;
x=y;
y=temp;
printf("The Swapping is.. %d %d",*x,*y);
}
```

Output:-

```
Enter the 2 number for swapping56
98
The Swapping is.. 98 56
```

Program 30. Write a program in c to calculate area and perimeter of a circle using call by reference.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
#define pie 3.14
void area(double *x);
void peri(double *x);
void main(){
double r;
clrscr();
printf("Enter the radius of a circle");
scanf("%lf",&r);
area(&r);
peri(&r);
getch();
}
void area(double *x){
double a;
a=pie*(*x)*(*x);
printf("\nThe Area of a Circle is %lf",a);
}
void peri(double *x){
double p;
p=2*pie*(*x);
printf("\nThen perimeter of a circle is %lf",p);
}
```

Output:-

```
    Enter the radius of a circle12

    The Area of a Circle is 452.160000
    Then perimeter of a circle is 75.360000
```

Program 31. Write a program to add, subtract, multiply and divide two numbers using pointers.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void sum(int *x,int *y);
void sub(int *x,int *y);
void mul(int *x,int *y);
void div(int *x,int *y);
void main(){
int a,b,e;
clrscr();
printf("Enter the numbers");
scanf("%d %d",&a,&b);
printf("\nFor addition press 1");
printf("\nFor subtraction press 2");
printf("\nFor multiplication press 3");
printf("\nFor division press 4");
scanf("%d",&e);
switch(e){
case 1:
sum(&a,&b);
break;
case 2:
sub(&a,&b);
break;
case 3:
mul(&a,&b);
break;
case 4:
div(&a,&b);
break;
default:
printf("Not Valid");
break;
}
getch();
}
void sum(int *x,int *y){
int s;
s=(*x)+(*y);
printf("The sum is %d",s);
}
void sub(int *x,int *y){
int m;
m=(*x)-(*y);
printf("Subtraction is %d",m);
}
void div(int *x,int *y){
```

```
int d;
d=(*x)/(*y);
printf("Division is %d",d);
}
void mul(int *x,int *y){
int n;
n=((*x)*(*y));
printf("Multiplication is %d",n);
}
```

Output:-

```
    Enter the numbers15
    3

    For addition press 1
    For subtraction press 2
    For multiplication press 3
    For division press 43
    Multiplication is 45_
```

Program 32. Write a program to input marks of 50 students using an array and display the average marks of the class.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main(){
int sum=0,avg,i;
int marks[50];
for(i=0;i<50;i++)
{
printf("\nEnter the marks of student");
scanf("%d",&marks[i]);
sum=sum+marks[i];
}
avg=sum/50;
printf("Average is %d",avg);
getch();
}
```

Output:-

```
Enter the marks of student60

Enter the marks of student64

Enter the marks of student24

Enter the marks of student57

Enter the marks of student88

Enter the marks of student44

Enter the marks of student56

Enter the marks of student76

Enter the marks of student23

Enter the marks of student98

Enter the marks of student56

Enter the marks of student74

Average is 56_
```

Program 33. Write a program to search for a number entered by the user in a given variable.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
int a[1];
int e,s,r,count=0,f;
clrscr();
printf("\nEnter the Range of a array");
scanf("%d",&r);
for(e=0;e<=r-1;e++){
printf("\nEnter the element");
scanf("%d",&a[e]);
}
printf("\nEnter the searchable element");
scanf("%d",&f);
for(s=0;s<=r-1;s++){
if(a[s]==f){
count++;
}
}
if(count==1){
printf("\nYes it is");
}
else{
printf("\nNot found");
}
getch();
}
```

Output:-

```
Enter the Range of a array6
Enter the element56
Enter the element78
Enter the element92
Enter the element12
Enter the element76
Enter the element34
Enter the searchable element67
Not found
```

```
Enter the Range of a array3
Enter the element12
Enter the element34
Enter the element76
Enter the searchable element76
Yes it is_
```

Same question with different style...

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main(){
int number[5];
int a,i,count=0,n;
clrscr();
for(i=0;i<5;i++)
{
printf("Enter the Number %d",i);
scanf("%d",&number[i]);
}
printf("Enter the searchable number");
scanf("%d",&a);
for(n=0;n<=i;n++){
if(number[n]==a){
count++;
}
}
if(count==1){
printf("yes it is");
}
else{
printf("no");
}
getch();
}
```

Output:-

```
Enter the Number 034
Enter the Number 145
Enter the Number 256
Enter the Number 335
Enter the Number 445
Enter the searchable number56
yes it is
```

Program 34. Write a program in C to pass array element to a function by call by value.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void display(int x);
void main(){
int a[6]={1,2,3,4,5,6};
clrscr();
for(int i=0;i<=5;i++){
display(a[i]);
}
getch();
}
void display(int x){
printf("\nThe element is %d",x);
}
```

Output:-

```
        The element is 1
        The element is 2
        The element is 3
        The element is 4
        The element is 5
        The element is 6
```

Program 35. Write a program in C to pass array element to a function by call by reference.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void display(int *x);
void main(){
int a[5]={4,5,6,7,8};
int i;
clrscr();
for(i=0;i<=4;i++){
display(&a[i]);
}
getch();
}
void display(int *x){
printf("\nThe element is %d",*x);
}
```

Output:-

```
    The element is 4
    The element is 5
    The element is 6
    The element is 7
    The element is 8
```

Program 36. Write a program in C to print the following pattern.

```
*
**
***
****
*****
```

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main(){
int a,n,i;
printf("Enter the number of row");
scanf("%d",&n);
for(i=1;i<=n;i++)
{
for(a=1;a<=i;a++)
{
printf("*");
}
printf("\n");
}
getch();
}
```
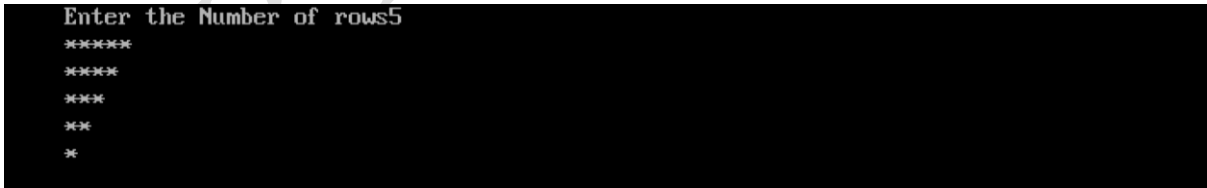
Output:-

```
Enter the number of row5
*
**
***
****
*****
```

Program 37. Write a program in C to print the inverted half pyramid of *.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main(){
int a,rows,n;
clrscr();
printf("Enter the Number of rows");
scanf("%d",&rows);
for(a=rows;a>=1;a--)
{
for(n=1;n<=a;n++){
printf("*");
}
printf("\n");
}
getch();
}
```

Output:-

```
Enter the Number of rows5
*****
****
***
**
*
```

Program 38. Write a program in C to print the half pyramid of numbers

1
1 2
1 2 3
1 2 3 4

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main(){
int a,i,n,row;
printf("Enter the Number of Row");
scanf("%d",&row);
for(i=1;i<=row;i++){
for(n=1;n<=i;n++){
printf("%d",n);
}
printf("\n");
}
getch();
}
```

Output:-

```
Enter the Number of Row4
1
12
123
1234

_
```

Program 39. Write a program using pointers to compute the sum of all elements stored in the array.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
int a[6],i;
int *p,sum=0;
clrscr();
for(i=0;i<6;i++){
printf("Enter the Number");
scanf("%d",&a[i]);
sum=sum+(*(a+i));
}
printf("Sum is %d",sum);
getch();
}
```

Test Code: - 1,2,3,4,5,6

s

Output:-

```
    Enter the Number1
    Enter the Number2
    Enter the Number3
    Enter the Number4
    Enter the Number5
    Enter the Number6
    Sum is 21_
```

Program 40. Write a program in C to sort the elements of an array using pointers.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
void main()
{
    int n[5];
    int *m;
    int i,j,p=0;
    printf("enter 5 numbers:");
    for(i=0;i<5;i++)
    {
    scanf("%d",&n[i]);
    }
    m=n;
    for(i=0;i<5;i++)
    {
     for(j=i+1;j<5;j++)
     {
        if(*(m+i)>*(m+j))
         {p=*(m+i);
          *(m+i)= *(m+j);
         *(m+j)=p; }
     }
    }
    for(i=0;i<5;i++)
    {
     printf("%d\n",*(m+i));
    }
   getch();

}
```

Output:-

```
Turbo C++ Version 3.00 Copyright (c) 1992 Borland International
main.cpp:
Turbo Link  Version 5.0 Copyright (c) 1992 Borland International

        Available memory 4124800
enter 5 numbers:1 34 56 23 9
1
9
23
34
56
```

Program 41. Write a program in C to show the use of malloc and free function.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
#include<alloc.h>
void main(){
int *n;
char *ch;
float *f;
clrscr();
ch=(char *)malloc(sizeof(char));
n=(int *)malloc(sizeof(int));
f=(float *)malloc(sizeof(float));
printf("Enter the Character");
*ch=getchar();
printf("\nEnter the Number of Interger");
scanf("%d",n);
printf("\nEnter the Float");
scanf("%f",f);
printf("\n The Contents which you are entered are %d %c %f",*n,*ch,*f);
free(ch);
free(n);
free(f);
getch();
}
```

Output:-

```
 Enter the CharacterG

 Enter the Number of  Interger12

 Enter the Float13.1

  The Contents which you are entered are 12 G 13.100000
```

Program 42. Write a program to show the concept of dynamic memory allocation for an array.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
#include<alloc.h>
void main(){
int i,*p,n;
clrscr();
printf("\nEnter the Range of an Array");
scanf("%d",&n);
p=(int *)malloc(sizeof(int)*n);
for(i=0;i<n;i++){
printf("Enter the P[%d] element",i);
scanf("%d",p+i);
//p+=i;
}
for(i=0;i<n;i++){
printf("\nThe P[%d] element is... %d",i,*(p+i));
}
getch();
}
```

Output:-

```
Enter the Range of an Array5
Enter the P[0] element12
Enter the P[1] element16
Enter the P[2] element19
Enter the P[3] element2
Enter the P[4] element31

The P[0] element is... 12
The P[1] element is... 16
The P[2] element is... 19
The P[3] element is... 2
The P[4] element is... 31
```

Program 43. Write a program C to perform Matrix Addition, Multiplication, Transpose.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void add(int m[][3],int n[][3],int sum[3][3]);
void sub(int m[3][3],int n[3][3],int result[3][3]);
void multiply(int m[3][3],int n[3][3],int result[3][3]);
void transpose(int matrix[3][3],int trans[3][3]);
void display(int matrix[3][3]);
void main()
{
int a[][3]={{1,1,1},{2,2,2},{3,3,3}};
int b[][3]={{1,1,1},{2,2,2},{3,3,3}};
int c[3][3];
printf("first matrix :\n");
display(a);
printf("second matrix:\n");
display(b);
int choice;
do
{
printf("\n choose the matrix opertion\n");
printf("1.Addtion\n");
printf("2.subtraction\n");
printf("3.multiplication\n");
printf("4.transpose\n");
printf("-------------------\n");
printf("Enter choice");
scanf("%d",&choice);
switch(choice)
```

```c
{
case 1:
add(a,b,c);
printf("sum of matrix:\n");
display(c);
break;
case 2:
sub(a,b,c);
printf("subtraction of matrix:\n");
display(c);
break;
case 3:
multiply(a,b,c);
printf("Multiplication of matrix:\n");
display(c);
break;
case 4:
printf("Transpose of first matrix:\n");
transpose(a,c);
display(c);
printf("Transpose of second matrix:\n");
transpose(b,c);
display(c);
break;
case 5:
printf("Thank you\n");
exit(0);
default:
printf("You entered wrong choice\n");
}
}
while(1);
}
```

```
void add(int m[3][3],int n[3][3],int sum[3][3]){

int i,j;

for (i=0;i<3;i++){

for(j=0;j<3;j++){

sum[i][j]=m[i][j]+n[i][j];

}

}

}

void sub(int m[3][3],int n[3][3],int sub[3][3])

{int i,j;

for (i=0;i<3;i++)

for(j=0;j<3;j++)

sub[i][j]=m[i][j]+n[i][j];

}

void multiply(int m[3][3],int n[3][3],int mul[3][3])

{

int i,j,k;

for (i=0;i<3;i++){

for(j=0;j<3;j++){

mul[i][j]=0;

for(k=0;k<3;k++){

mul[i][j]+=(m[i][k]*n[k][j]);

}

}

}

}

void transpose(int matrix[3][3],int trans[3][3])

{

int i,j;

for (i=0;i<3;i++){

for(j=0;j<3;j++){

trans[j][i]=matrix[i][j];

}
```

```
}

}

void display(int matrix[3][3]){

int i,j;

for (i=0;i<3;i++){

for(j=0;j<3;j++){

printf("%d \t",matrix[i][j]);

}

printf("\n");

}

getch();

}
```

Output:-

Program 44. Write a program to check if a string is palindrome or not.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main(){
//strcmp() strrev() strcpy()
char name1[50];
char name2[50];
printf("\nEnter the String");
gets(name1);
strcpy(name2,name1);
strrev(name1);
if(!strcmp(name1,name2)){
printf("Yes, it is palindrome");
}
else{
printf("No");
}
getch();
}
```

Output:-

```
Enter the Stringmadam
Yes, it is palindrome
Enter the Stringcollege
No_
```

Program 45. Write a program to check if a string is palindrome or not. (Without using predefined function).

Source Code: -

```c
#include<stdio.h>
#include<string.h>
#include<conio.h>
void main(){
char name[100];
int c=0,n,i;
printf("\nEnter the String");
gets(name); //it is same as scanf the diffrence is that it is use with string only..
n=strlen(name); //length of a string
for(i=0;i<n/2;i++){
if(name[i]==name[n-i-1]){
c++;
}
}
if(c==i){
printf("\nYes, it is palindrome");
}
else {
printf("\nNo, it is not palindrome");
}
getch();
}
```

Output:-

```
Enter the StringSarthak

No, it is not palindrome
Enter the StringMadam

No, it is not palindrome
Enter the Stringmadam

Yes, it is palindrome
```

Program 46. Write a menu driven program to implement following operations:

(i) Calculate length of string

(ii) Concatenate at the end of a given string

(iii) Copy one string to another

(iv) Compare contents of two strings

(v) Copy nth character string to another.

Source Code: -

```
#include<stdio.h>
#include<string.h>
#include<conio.h>
void main(){
char name[100];
char name1[100];
char temp[100];
int c,n;
clrscr();
printf("Enter the String");
scanf("%s",name);
printf("\nPress 1 for finding the length of a String");
printf("\nPress 2 for concatenate");
printf("\nPress 3 for copy the string");
printf("\nPress 4 for comparing");
printf("\nPress 5 for n element");
scanf("%d",&c);
switch(c){
case 1:
printf("%d",strlen(name));
break;
case 2:
strcpy(temp,name);
printf("Enter another string");
scanf("%s",name1);
strcat(temp,name1);
printf("\nConcatenation is %s",temp);
break;
case 3:
strcpy(temp,name);
printf("String is copied in another variable temp %s",temp);
break;
case 4:
printf("Enter the String For Comparing");
scanf("%s",temp);
if(strcmp(name,temp)==0){
printf("It is identical");
}
else{
```

```
printf("Not identical");
}
break;
case 5:
printf("How many character do you to copy from the above string");
scanf("%d",&n);
strncpy(temp,name,n);
printf("\nResulted String is %s",temp);
break;
default:
printf("Wrong Input");
break;
}
getch();
}
```

Test Code: - sarthak

Output:-

```
Enter the Stringsarthak

Press 1 for finding the length of a String
Press 2 for concatenate
Press 3 for copy the string
Press 4 for comparing
Press 5 for n element1
7
Enter the Stringsarthak

Press 1 for finding the length of a String
Press 2 for concatenate
Press 3 for copy the string
Press 4 for comparing
Press 5 for n element2
Enter another stringarora

Concatenation is sarthakarora
```

```
Enter the Stringtias

Press 1 for finding the length of a String
Press 2 for concatenate
Press 3 for copy the string
Press 4 for comparing
Press 5 for n element3
String is copied in another variable temp tias
Enter the Stringparas

Press 1 for finding the length of a String
Press 2 for concatenate
Press 3 for copy the string
Press 4 for comparing
Press 5 for n element4
Enter the String For Comparing
sarthak
Not identical_
```

Program 47. Write a program of calculating factorial with recursive function or recursion.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
int rec(int);
void main(){
int i,a;
clrscr();
printf("Enter the Number");
scanf("%d",&i);
a=rec(i);
getch();
}
int rec(int x){
int f,i;
if(x==1){
return(1);
}
else{
f=x*rec(x-1); //3*rec(2) then it will in rec then it will make 2*rec(1) ie 2*1 so 3*2
i=rec(x-1);
printf("%d ",i);
}
return(f);
}
```

Test Code: - 5

Output:-

```
Enter the Number5
Factorial is...120_
```

Program 48. Write a program to convert hexadecimal number to binary number.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void hexa(char *);
void main(){
char code[100];
int i,n;
clrscr();
printf("Enter the hexa code");
gets(code);
hexa(code);
getch();
}
void hexa(char *x){
int i=0;
while(x[i]){
switch(x[i]){
case '0':
printf("0000");
break;
case '1':
printf("0001");
break;
case '2':
printf("0010");**
break;
case '3':
printf("0011");
break;
case '4':
printf("0100");
break;
case '5':
printf("0101");
break;
case '6':
printf("0110");
break;
case '7':
printf("0111");
break;
case '8':
printf("1000");
break;
case '9':
printf("1001");
break;
```

```
case 'A':
printf("1010");
break;
case 'B':
printf("1011");
break;
case 'C':
printf("1100");
break;
case 'D':
printf("1101");
break;
case 'E':
printf("1110");
break;
case 'F':
printf("1111");
break;
default:
printf("not valid");
break;
}
i++;
}
}
```

Output:-

```
Enter the hexa code1AB2
0001101010110010
```

Program 49. Write a program to create a structure for employees

- Emp.ID
- Name
- Age
- Address
- Department
- Salary

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
struct employ{
int id;
char name[50];
int age;
char add[50];
char depart[20];
int salary;
};
struct employ d[10];
int i,n;
for(i=0;i<10;i++){
printf("Enter ID Name Age Address Department Salary");
scanf("%d %s %d %s %s %d",&d[i].id,&d[i].name,&d[i].age,&d[i].add,&d[i].depart,&d[i].salary);
}
printf("\nEnter the Employee ID\n");
scanf("%d",&n);
for(i=0;i<10;i++){
if(d[i].id==n){
printf("\n%d %s %d %s %s %d",d[i].id,d[i].name,d[i].age,d[i].add,d[i].depart,d[i].salary);
}
getch();
}
}
```

Output:-

```
Enter ID Name Age Address Department Salary1 Sarthak 19 BH BCA 98000
Enter ID Name Age Address Department Salary2 Piyush 22 CV BBA 1200
Enter ID Name Age Address Department Salary3 gautam 19 fg BBA 13000
Enter ID Name Age Address Department Salary4 PAras 26 GH IT 102000
Enter ID Name Age Address Department Salary5 Virat 23 UG LLB 50000
Enter ID Name Age Address Department Salary6 Anshuk 27 WQ BALLB 60000
Enter ID Name Age Address Department Salary7 Vipul 22 RT BCA 98000
Enter ID Name Age Address Department Salary8 Eliza 19 YP BCA 99000
Enter ID Name Age Address Department Salary9 Kushal 20 YU BCA 98098
Enter ID Name Age Address Department Salary10 Arsh 19 UI BBA 89000

Enter the Employee ID
6

6 Anshuk 27 WQ BALLB -5536
```

Program 50. Write a program to pass address of a structure variable to a user-defined function and display the content.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
struct book{
char name[50];
char author[25];
int pages;
};
void display(struct book *);
void main(){
struct book b1={"Java","James",496};
clrscr();
display(&b1);
}
void display(struct book *b2){
printf("\nThe Book Name is %s\n",b2->name);
printf("The Author Name is %s\n",b2->author);
printf("Pages are %d",b2->pages);
}
```

Output:-

```
The Book Name is Java
The Author Name is James
Pages are 496_
```

Program 51. Write a program to make use of array with structures in following ways.

  I.   Use array as a structure data member.
  II. Create array of Structure variable.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
struct student{
char name[20];
int rollno[5];
char course[10];
};
int i;
struct student s1[5];
for(i=0;i<5;i++){
printf("\nEnter the Name Roll No Course\n");
scanf("%s %d %s",s1[i].name,&s1[i].rollno[i],s1[i].course);
}
for(i=0;i<5;i++){
printf("%s %d %s",s1[i].name,s1[i].rollno[i],s1[i].course);
}
getch();
}
```

Output:-

```
Enter the Name Roll No Course
Sarthak 1 bca

Enter the Name Roll No Course
Eliza 2 bba

Enter the Name Roll No Course
Paras 3 bca

Enter the Name Roll No Course
Arsh 4 BBA

Enter the Name Roll No Course
Dhruv Singh 5 BCA
Sarthak 1 bcaEliza 2 bbaParas 3 bcaArsh 4 BBADhruv
```

Program 52. Write a program to illustrate difference between structure and union.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
struct emp{
int id;
char name[20];
float salary;
};
union student{
int rollno;
char name[20];
float marks;
};
void main(){
struct emp e={1,"Sarthak",98000};
union student s={3};
clrscr();
printf("Id=%d Name=%s Salary=%f",e.id,e.name,e.salary);
printf("RollNo=%d",s.rollno);
printf("\nSize of Structure is %d",sizeof(e));
printf("\nSize of union is %d",sizeof(s));
getch();
}
```

Output:-
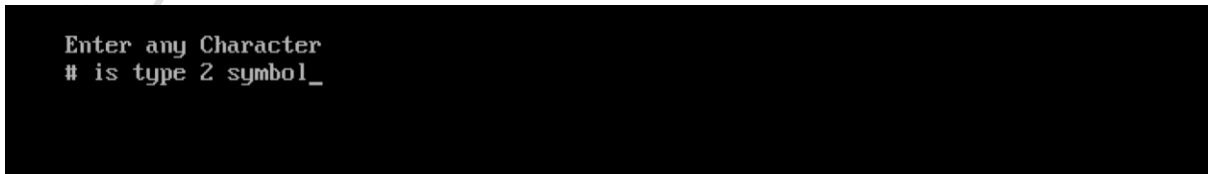
```
Id=1 Name=Sarthak Salary=98000.000000
RollNo=3
Size of Structure is 26
Size of union is 20
```

Program 53. Write a program in C to show the use of the concept enemuration.

Source Code: -

```
#include<stdio.h>
#include<ctype.h>
#include<conio.h>
void main(){
int f;
char ch;
enum ctype{
letter,Digit,Other
};
printf("\nEnter any Character\n");
ch=getch();
f=isalpha(ch);
if(f!=0){
printf("%c is type %d symbol",ch,letter);
}
else{
f=isdigit(ch);
if(f!=0){
printf("%c is type %d symbol",ch,Digit);
}
else{
printf("%c is type %d symbol",ch,Other);
}
}
getch();
}
```

Output:-

```
Enter any Character
# is type 2 symbol_
```

Program 54. Write a program to read the data from the keyboard write into the file named INPUT and read again the same data from the input file and display on the screen.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main(){
FILE *p;
char ch;
p=fopen("INPUT.txt","w");
if(p==NULL){
printf("Cannot open");
exit(1);
}
printf("Enter the Data and to stop press .");
while(ch!='.'){
ch=getche();
putc(ch,p);
}
fclose(p);
printf("\nTo read\n");
p=fopen("INPUT.txt","r");
while(!feof(p)){
printf("%c",getc(p));
}
getch();
}
```

Output:-

```
C:\TURBOC3\BIN>TC
Enter the Data and to stop press .Sarthak Arora from BCA 1st shift.
To read
Sarthak Arora from BCA 1st shift. _
```

Program 55. Write a program to open pre-existing file and add the information at the end of the file.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
FILE *fp;
char ch='.';
fp=fopen("input.txt","r");
while(!feof(fp)){
ch=getc(fp);
printf("%c",ch);
}
fclose(fp);
fp=fopen("input.txt","a");
while(ch!='.'){
ch=getch();
putc(ch,fp);
}
fclose(fp);
}
```

Output:-

```
Sarthak Arora from BCA 1st shift. _
```

```
Sarthak Arora from BCA 1st shift.dob 06-01-2003.
```

Program 56. Write a program to show the use of W+ mode in file handling.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
FILE *fp;
char ch;
clrscr();
fp=fopen("INPUT.txt","w+");
if(fp==NULL){
printf("Can't open file");
}
printf("\nIn content to write and to stop press ','");
while(ch!='.'){
ch=getche();
putc(ch,fp);
}
rewind(fp);
printf("\nContents is : ");
while(!feof(fp)){
printf("%c",getc(fp));
}
getch();
fclose(fp);
}
```

Test Code
Output:-

```
In content to write and to stop press ','sarthak arora.
Contents is : sarthak arora. _
```

Program 57. Write a program to open a file for read write operation in binary mode.

Source Code: -

```c
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main(){
FILE *p;
char ch;
p=fopen("Sarthak.dat","wb");
if(p==NULL){
printf("Cannot open");
exit(1);
}
printf("Enter the Data and to stop press .");
while(ch!='.'){
ch=getche();
putc(ch,p);
}
fclose(p);
printf("\nTo read\n");
p=fopen("Sarthak.dat","rb");
while(!feof(p)){
printf("%c",getc(p));
}
getch();
}
```
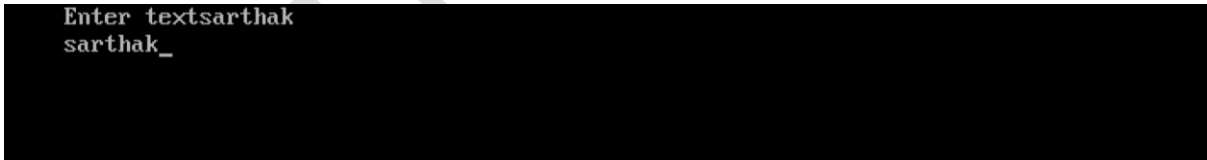
Output:-

```
    Enter the Data and to stop press .sarthak arora bca 1st shift .
    To read
    sarthak arora bca 1st shift . _
```

Program 58. Write a program to open a text file and write some text using fprintf and fscanf function.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
FILE *fp;
char text[30];
clrscr();
fp=fopen("text.txt","w");
printf("Enter text");
gets(text);
fprintf(fp,"%s",text);
fclose(fp);
fp=fopen("text.txt","r");
fscanf(fp,"%s",text);
printf("%s",text);
fclose(fp);
}
```

Output:-

```
Enter textsarthak
sarthak_
```

Program 59. Write a program to create a file "data" which contains a series int numbers and then write all odd no. to file called odd file and even numbers called even file.

Source Code: -

```
#include<stdio.h>
#include<conio.h>
void main(){
FILE *f1,*f2,*f3;
int number,i;
clrscr();
printf("Enter the Contents");
f1=fopen("prog59","w");
for(i=1;i<6;i++){
scanf("%d",&number);
putw(number,f1);
}
fclose(f1);
f1=fopen("prog59","r");
f2=fopen("odd","w");
f3=fopen("even","w");
while((number=getw(f1))!=EOF)
{
if(number%2==0){
putw(number,f3);
}
else{
putw(number,f2);
}
}
fclose(f2);
fclose(f3);
f2=fopen("odd","r");
f3=fopen("even","r");
while((number=getw(f2))!=EOF){
printf("\nOdd No's%d",number);
}
while((number=getw(f3))!=EOF){
printf("\nEven No's%d",number);
}
getch();
fcloseall();
}
```

Output:-

```
Enter the Contents1
2
5
6
7

Odd No's1
Odd No's5
Odd No's7
Even No's2
Even No's6
```

Program 60. Write a program to read the text file containing same sentence use f seek function and read the text after skipping n character from the file

Source Code: -

```
#include<stdio.h>
#include<conih>
void main(){
FILE *fp;
int n;
char ch;
clrscr();
fp=fopen("prog60.txt","w");
while(ch!='.'){
ch=getche();
putc(ch,fp);
}
fclose(fp);
fp=fopen("prog60.txt","r");
printf("\nIn content of the file\n");
while((ch=fgetc(fp))!=EOF){
printf("%c",ch);
}
printf("\nHow many Character you want to skip");
scanf("%d",&n);
fseek(fp,n,SEEK_SET);
printf("\nInformation after n character\n");
while((ch=fgetc(fp))!=EOF){
printf("%c",ch);
}
fclose(fp);
getch();
}
```

Output:-

```
    sarthak arora.
    In content of the file
    sarthak arora.
    How many Character you want to skip3

    Information after n character
    thak arora.
```