**Important programs of C**

**Generate Fibonacci series Reverse a number**

unsigned int i=0,j=0,sum=1,num;

printf("nEnter the limit for the series ");

scanf("%d",&num);

while(sum<num)

{

printf("%d ",sum);

i=j;

j=sum;

sum=i+j;

}

int n, n1, rev = 0, rem;

printf("Enter any number: \n");

scanf("%d", &n);

n1 = n;

/\* logic \*/

while (n > 0) {

rem = n % 10;

rev = rev \* 10 + rem;

n = n / 10;

}

printf("\nreversed number is %d\n",rev);

M**aximum of 3 numbers Maximum of 3 numbers using ternary operators**

int a,b,c;

printf("Enter a,b,c: \n");

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

int max = ((a>b)?((a>c)?a:c):((b>c)?b:c));

printf("\nThe larger number is %d\n",max);

int a, b, c;

printf("Enter a,b,c: \n");

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

if (a > b && a > c)

printf("\na is Greater than b and c\n");

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

printf("\nb is Greater than a and c\n");

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

printf("\nc is Greater than a and b\n");

else

printf("\nall are equal or any two values are equal\n");

C**heck palindrome number**

int n, n1, rev = 0, rem;

printf("Enter any number: \n");

scanf("%d", &n);

n1 = n;

/\* logic \*/

while (n > 0) {

rem = n % 10;

rev = rev \* 10 + rem;

n = n / 10;

}

if (n1 == rev)

printf("\nGiven number is a palindromic number\n");

else

printf("\nGiven number is not a palindromic number\n");

**Print a line without semicolon**

if(printf("Hello\_world\n")){}

C**heck number is even or odd**

int a;

printf("Enter a: \n");

scanf("%d", &a);

/\* logic \*/

if (a % 2 == 0)

printf("\nThe given number is EVEN\n");

else

printf("\nThe given number is ODD\n");

**Factorial of a number Check Prime number or not**

int n, i, c = 0;

printf("Enter any number n: \n");

scanf("%d", &n);

/\*logic\*/

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

{

if (n % i == 0)

c++;

}

printf("\nValue of c is %d\n",c);

if (c == 2)

printf("\n%d is a Prime number\n",n);

else

printf("\n%d is not a Prime number\n",n);

int n;

int i = 0;

int fact = 1;

printf("\nPlease enter a Value \n");

scanf("%d",&n);

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

fact = fact \* i ;

printf("\nValue of the entered Number is %d\n",fact);

**Decimal to Binary number**

int n;

int i = 0,j = 0;

int b[4];

printf("\nPlease Enter the Number\n");

scanf("%d",&n);

while(n > 0)

{

b[i] = n%2;

n = n/2;

i++;

}

j--;

for(i = j;j > 0; j--)

printf("%d\n",b[i]);

S **Swapping Numbers without third variable**

int a, b;

printf("\nEnter values of a and b: \n");

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

printf("\nBefore swapping a=%d, b=%d", a,b);

/\*Swapping logic \*/

a = a + b;

b = a - b;

a = a - b;

printf("\nAfter swapping a=%d b=%d\n", a, b);

**Swap numbers using passing parameters String is palindrome or not**

char arr[] = "arjun";

char \*p,\*q;

p = q = arr;

while(\*q != '\0')

q++;

q--;

while(q >= &arr[0])

{

if(\*p++ != \*q--)

{

printf("\nThe string is not palindrome\n");

exit(0);

}

printf("\nString is palindrome\n");

}

int a,b;

printf("\nEnter values of a and b: \n");

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

swap(&a,&b);

printf("\nAfter Swapping the Values of a = %d b = %d\n",a,b);

void swap(int \*a,int \*b)

{

int c;

c = \*a;

\*a = \*b;

\*b = c;

}

**Reversing of string Stringzing Operator**

#define STRING(x,y) #x " Developed by " #y

main()

{

char s[] = STRING(Program,Arjun Kumar Rath);

printf("%s\n",s);

}

Output: Program Developed by Arjun Kumar Rath

char \* rev\_string (char \* str);

main()

{

char buff[10];

printf("\nPlease enter a string\n");

scanf("%s",buff);

rev\_string(buff);

printf("\nThe Reversed String is %s\n",buff);

}

char \* rev\_string (char \* str)

{

char temp;

int i , j;

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

i--;

for(j = 0 ; j < i ; j++ , i--)

{

temp = str[j];

str[j] = str[i];

str[i] = temp;

}

return str;

}