**Basic C Programs**

1. **Factorial of a number**

#include <stdio.h>

int

main ()

{

int num;

unsigned long factorial = 1;

printf ("Enter a number:");

scanf ("%d", &num);

if (num < 0)

{

printf ("Cannot find the factorial of a negative number!");

}

else

{

for (int i = 1; i <= num; i++)

{

factorial = factorial \* i;

}

printf ("Factorial of the given number is %llu", factorial);

}

}

1. **Sum of 2 Numbers**

#include <stdio.h>

int

main ()

{

int a;

int b;

int c;

printf ("Enter first number:");

scanf ("%d", &a);

printf ("Enter second number:");

scanf ("%d", &b);

c = a + b;

printf ("The sum of 2 integers is:%d", c);

return(0);

}

1. **Fibonacci series**

#include <stdio.h>

int

main ()

{

int i, n, num1 = 0, num2 = 1, nextnum;

printf ("Enter the range: ");

scanf ("%d", &n);

printf ("Fibonacci Series: ");

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

{

printf ("%d, ", num1);

nextnum = num1 + num2;

num1 = num2;

num2 = nextnum;

}

return 0;

}

1. **To check whether the number is positive or negative**

#include <stdio.h>

int

main ()

{

int num;

printf ("Enter the number: ");

scanf ("%d", &num);

if(num<0)

{

printf("The number is a negative number");

}

else

{

printf("The number is a positive number");

}

}

1. **To check whether the number is prime or not**

#include <stdio.h>

int

main ()

{

int num, i, flag = 0;

printf ("Enter the number: ");

scanf ("%d", &num);

if (num < 0)

{

printf

("Entered number is negative number. Please enter a positive number");

}

else

{

for (i = 2; i <= num / 2; i++)

{

if (num % i == 0)

{

flag = 1;

break;

}

}

if (flag == 0)

{

printf ("Entered number is prime number");

}

else

{

printf ("Entered number is not a prime number");

}

}

}

1. **Example of a Function**

#include <stdio.h>

#include <conio.h>

int demofunc (int num);

int

main ()

{

int n = -10;

int result;

result = demofunc (n);

printf (result);

}

int

demofunc (int num)

{

char res;

if (num >= 0)

{

res = printf ("number is positive");

}

else

{

res = printf ("number is negative");

}}

1. **Arrays in C Programming**

#include <stdio.h>

int main () {

int n[ 11 ]={1,2,3,4,5,6,7,8,9,10};

int j;

for (j = 0; j < 11; j++ ) {

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

}

return 0;

}