Practical-01

Aim:- Structure of C Program.

Code:-

```
#include<stdio.h>
// Header file > stdio stand for Standard Input , Output.

/*If we use Turbo C and CodeBlocks we must include
conio.h header file...> conio stands for Console I/O.
*/

int main()   // This is the main Function...
//Compiler starts executing instruction from main function
{

    return 0; // return type > here is return 0 Because out main
              // function's type is int.
}
```

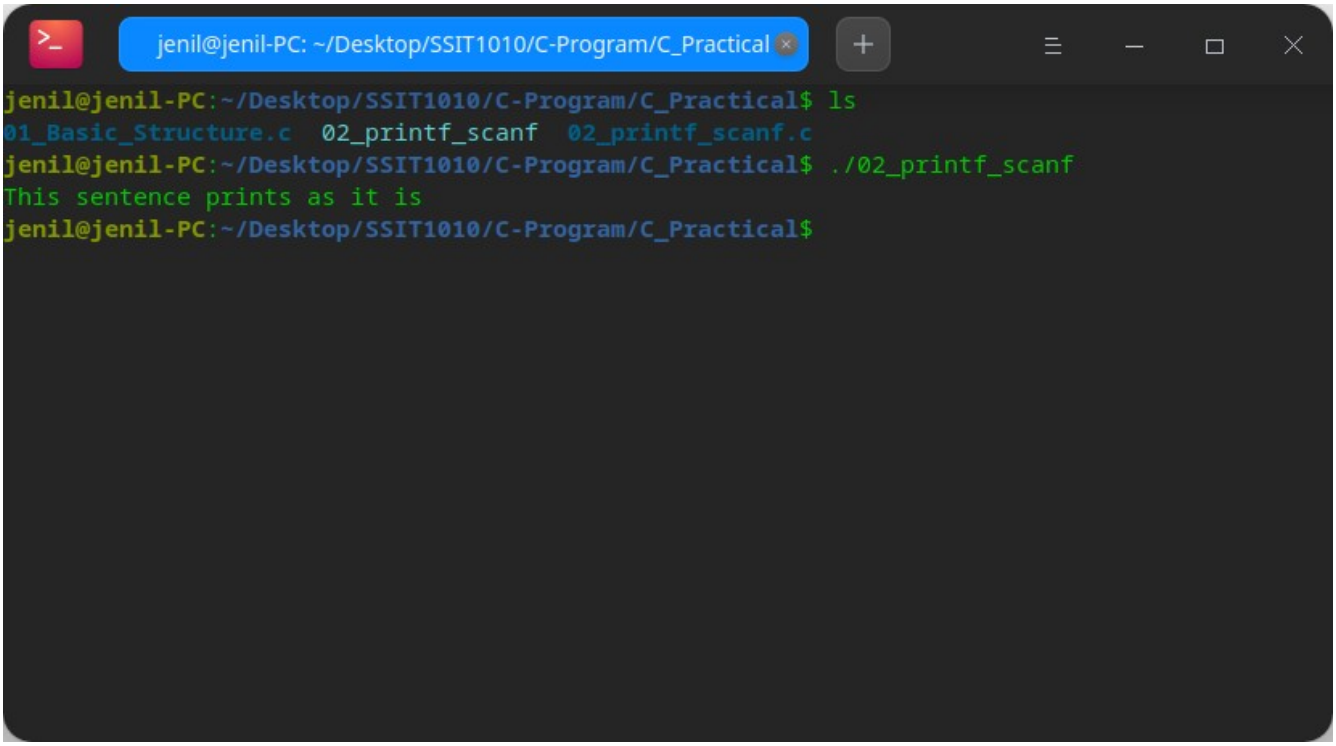
Practical-02

Aim:- Implement Basic C Programs using scanf() and printf()

Code:-(Printf)

```c
#include<stdio.h>


int main(){

    printf("This sentence prints as it is");
    //  \n .... New line
    return 0;
}
```

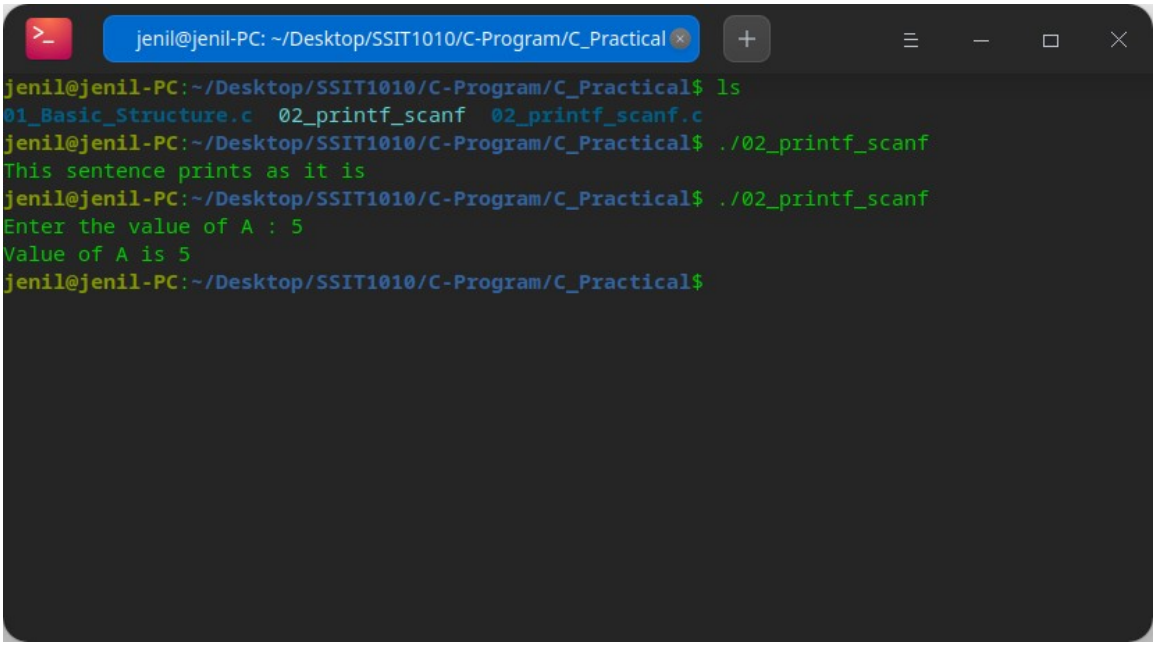
Output:-



Code:-(Scanf)

```
#include<stdio.h>
int main(){
	int A;//Variable Initialization

	printf("Enter the value of A : ");
	scanf("%d",&A);
	printf("Value of A is %d\n",A);
	/*
		%d for Integers
		%f for Real Number(Float)
		%c for Character
	*/

	return 0;
}
```

Output:-



Practical-03

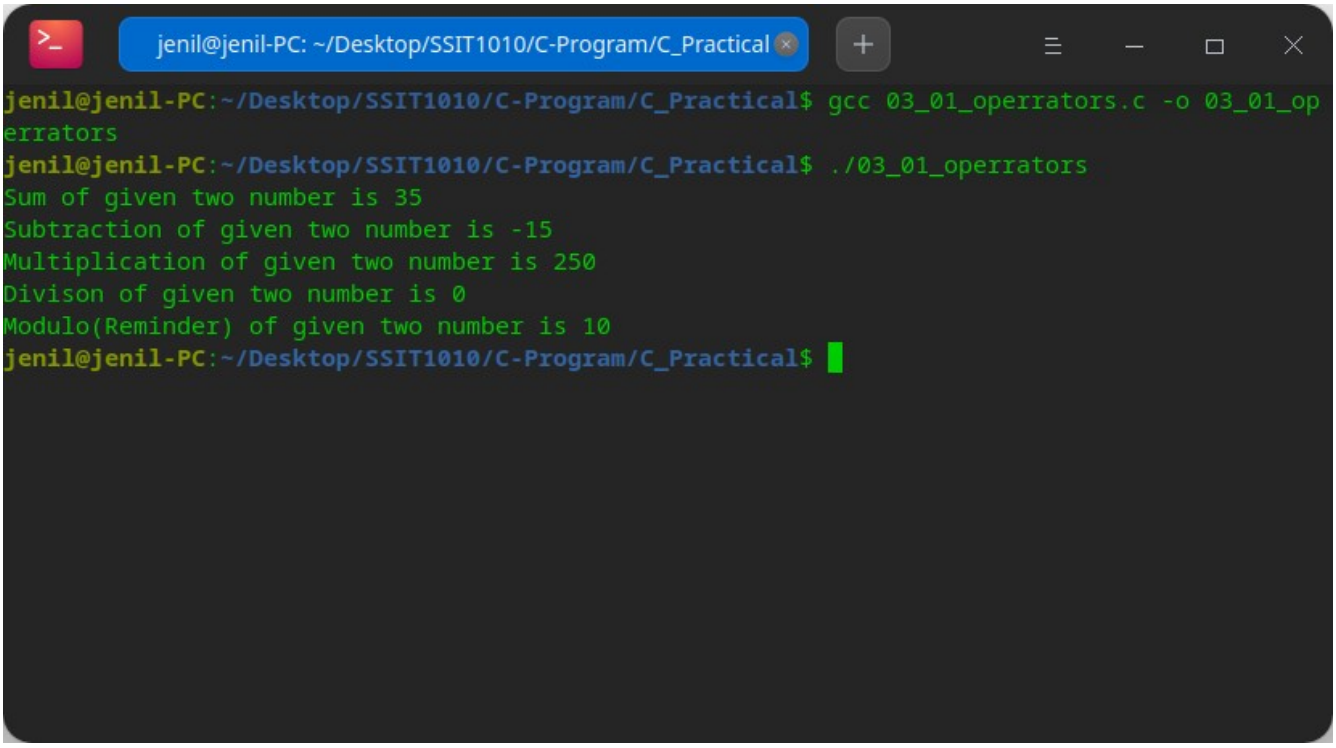
Aim:- Implement Basic C Programs to demonstrate different types of operators.

Code:- (Arithmetic operator)

```c
#include<stdio.h>
    // Arithmetic operators
int main(){
    /*
        +(Sum),-(Sub),*(Multiplication),/(Division)
        %(Modulo)....reminders.
    */
//varible init.. and Declaration.
    int Sum, Sub, Mul, Div, Mod;
    int A= 10;
    int B = 25;
//Operations
    Sum = A+B;
    Sub = A-B;
    Mul = A*B;
    Div = A/B;
    Mod = A%B;
//Print Statements
    printf("Sum of given two number is %d \n",Sum);
    printf("Subtraction of given two number is %d \n",Sub);
    printf("Multiplication of given two number is %d \n",Mul);
    printf("Divison of given two number is %d \n",Div);
    printf("Modulo(Reminder) of given two number is %d \n",Mod);
    return 0;
}
```

Output:-

Here we use gcc command to compile the .c extension file. After this command compiler creates [File_name].exe (executable) file automatically….



Code:-(Increment Decrement)

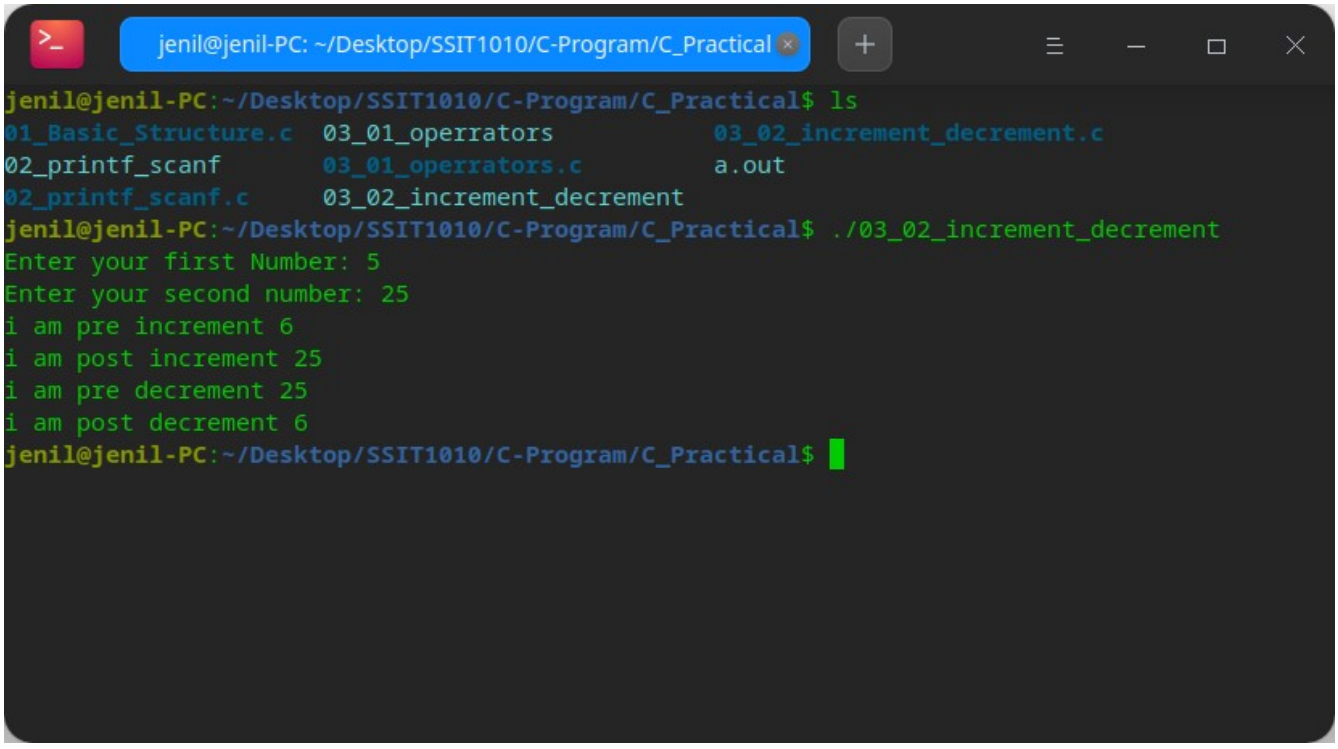
```c
#include<stdio.h>

int main(){

    int a, b;//Var initialization

    //take input from user
    printf("Enter your first Number: ");
    scanf("%d",&a);
    printf("Enter your second number: ");
    scanf("%d",&b);

    // Increment/Decrement operators
    int post_increment, post_decrement;
    int pre_increment, pre_decrement;

    pre_increment = ++a;   // (first calculate a+1 and then print it)
    post_increment = b++; // (first Print and then Calculate a+1)
    pre_decrement = --b;   // (first calculate a-1 and then print it)
    post_decrement = a--; // (first Print and then Calculate a-1)


    printf("i am pre increment %d\n",pre_increment);
    printf("i am post increment %d\n",post_increment);
    printf("i am pre decrement %d\n",pre_decrement);
    printf("i am post decrement %d\n",post_decrement);

    return 0;
}
```

Output:-

Explain:- Let First Number take X and second Number is Y. So X = 5 and Y = 25……

X's pre_increment is 6 (5+1) so now X's value is 6..
Post increment means first print and then increase value by adding 1..
so in this case first print Y's value and then Y's value will update..(26)

Y's pre_decrement is 25 (26-1) so now Y's value is 25..
Post decrement means first print and then decrease value by deduct 1..
so in this case first print X's value(6) and then X's value will update..(5)



Practical-04

Aim:- Swap two Numbers using third variable

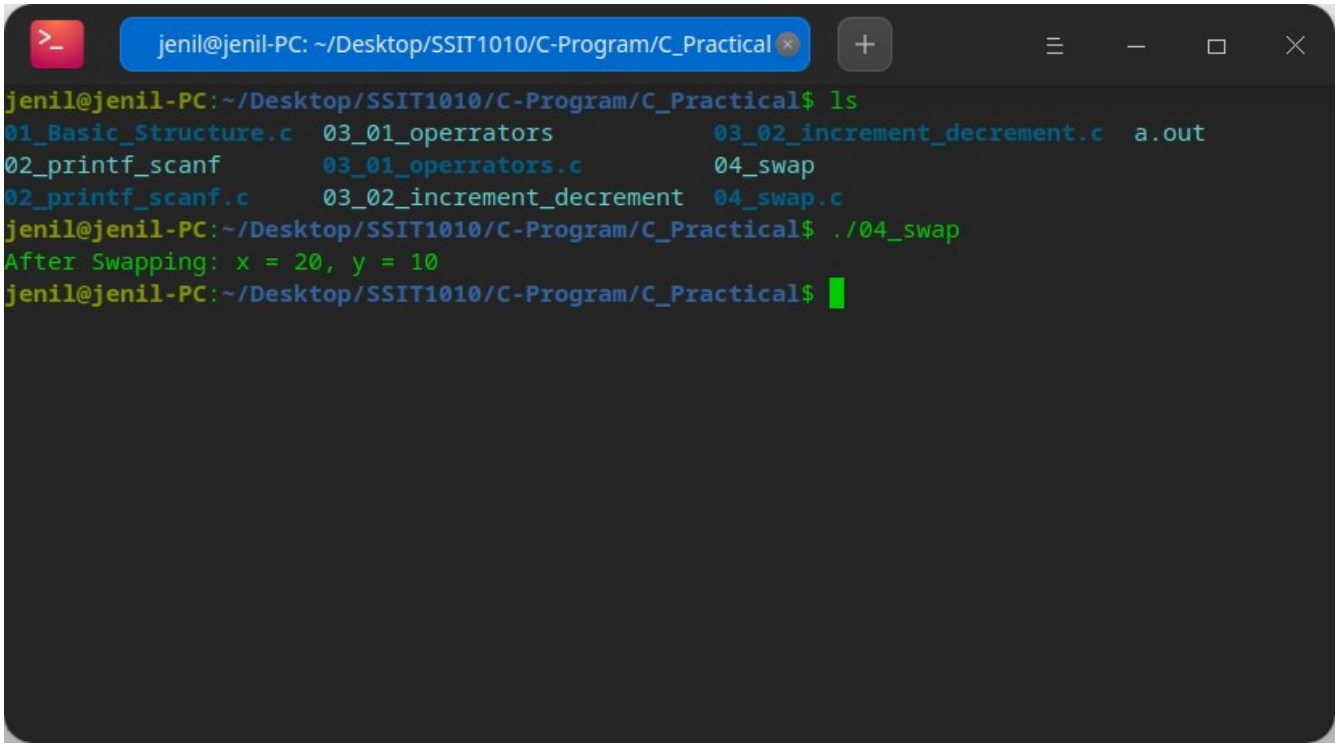
Code:-

```
#include<stdio.h>


int main()
{
	int x, y;

	x = 10;
	y = 20;

	int temp = x;

	x = y;
	y = temp;

	printf("After Swapping: x = %d, y = %d\n", x, y);

	return 0;
}
```

Output:-

Explain:-

- first of all store x's value in third variable(temp).
- So the value of temp is 10.
- now store y's value in variable x.
- So the value of x is become 20 and y is also 20
- now store temp's value in y.
- So that value of y become 10(same as x).



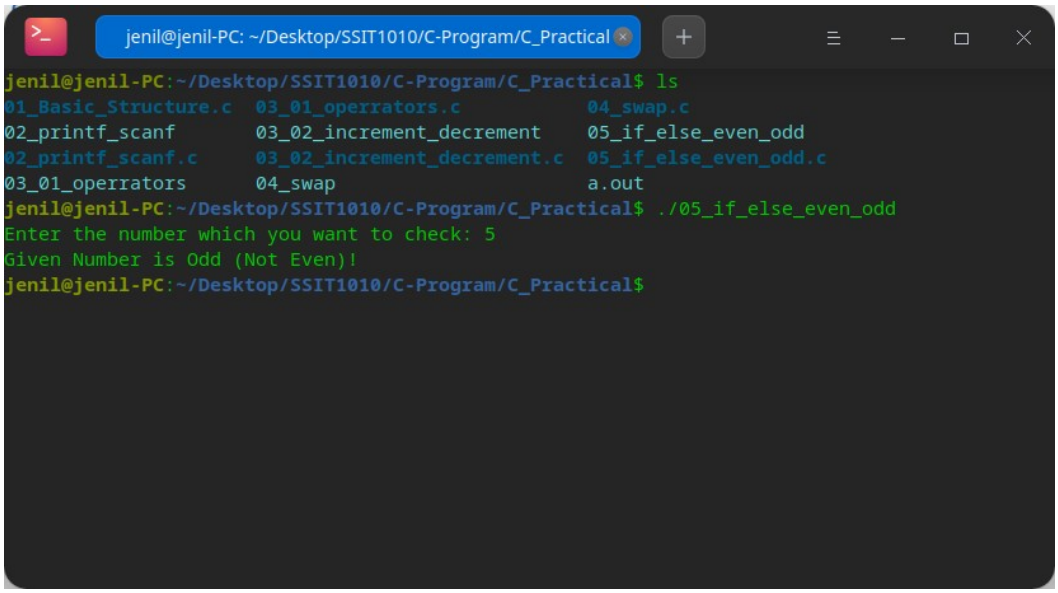
Practical-05

Aim:- Implementation in C for conditional statement: if()...else{}

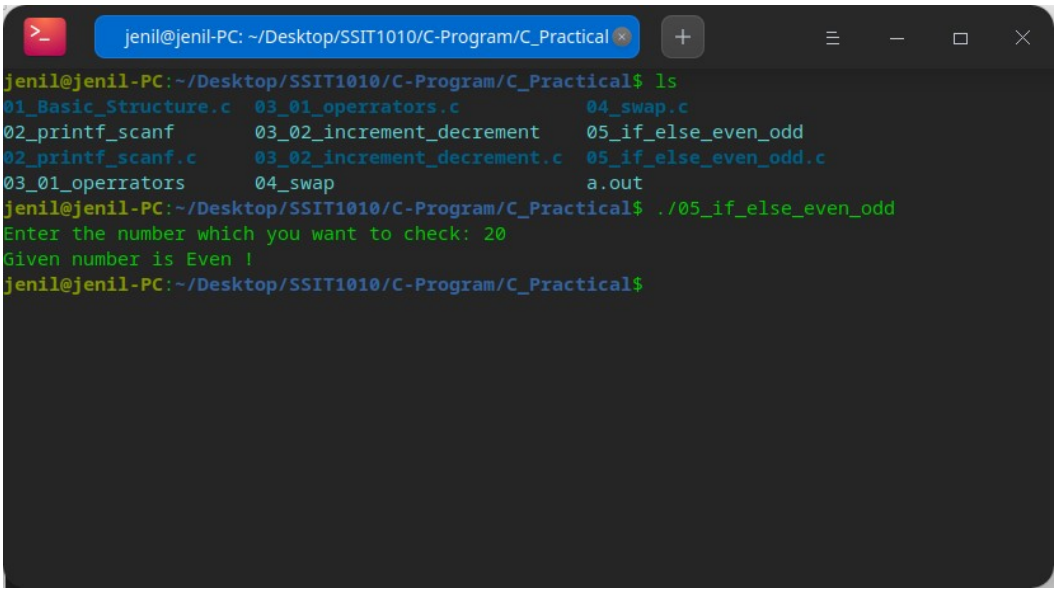
Code:-

```c
#include<stdio.h>

int main(){

	int Number;

	printf("Enter the number which you want to check: ");
	scanf("%d",&Number);

	if (Number%2 == 0)
	{
		printf("Given number is Even !\n");
	}
	else
	{
		printf("Given Number is Odd (Not Even)! \n");
	}

	return 0;
}
```

Code:-



Output i: for odd number



Output ii: for even number

Practical-06

Aim:-Write a C program to calculate simple Interest

Code:-

```c
#include<stdio.h>


float main(){

    float P,R,T;
    printf("Enter amout of your Principle value: ");
    scanf("%f",&P);
    printf("Enter your Rate value: ");
    scanf("%f",&R);
    printf("Enter Time period: ");
    scanf("%f",&T);

    float formula = (P*R*T)/100;
    printf("you will get %f in period of %d.\n",formula,(int)T);

    return 0;
}
```

Output:-

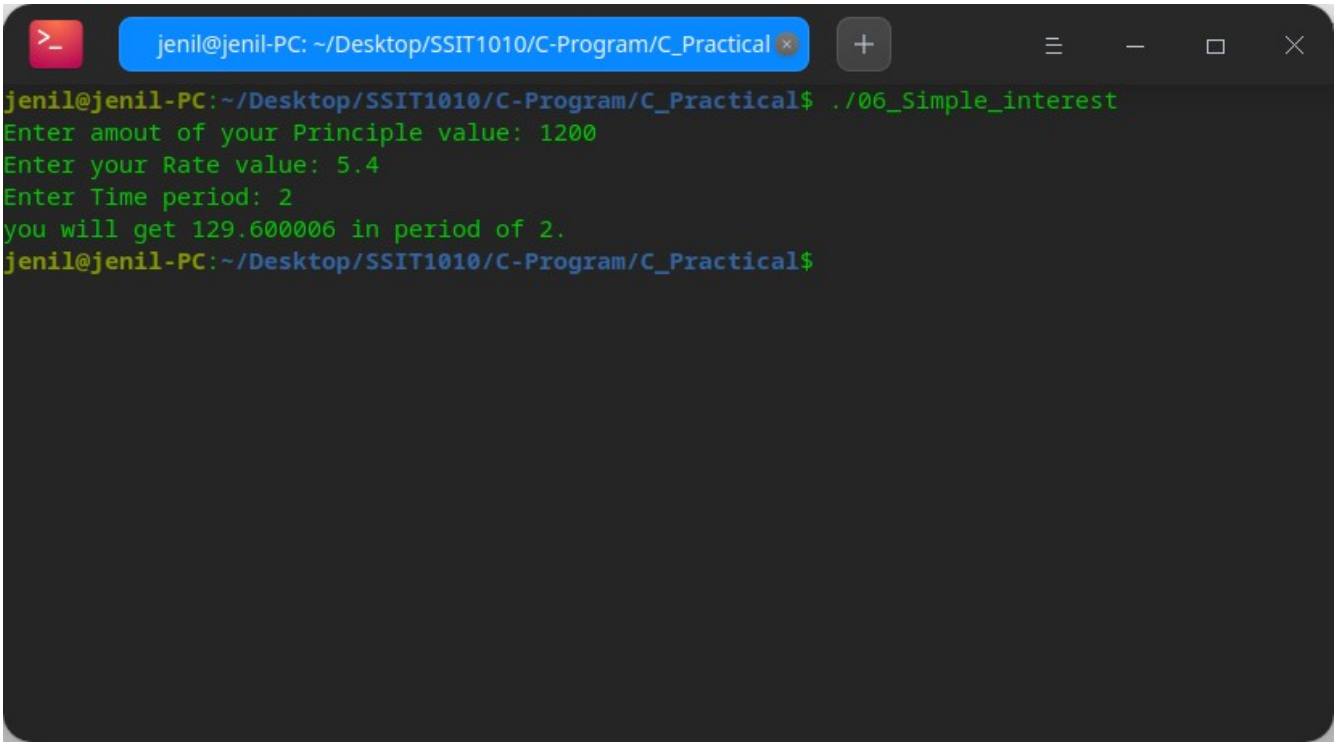


Figure 1: Principle value of 1200 and Rate is 4.5

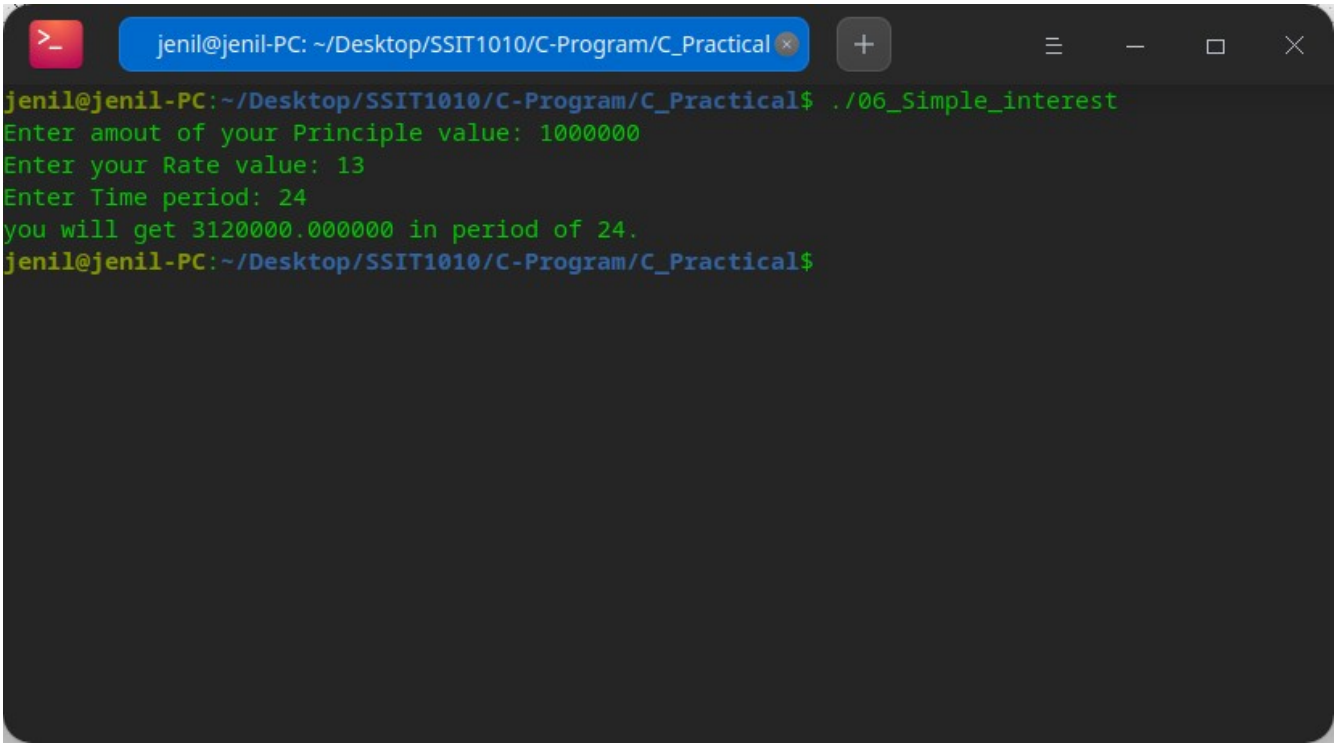


Figure 2: Details as per Mutual Funds (13% Return)

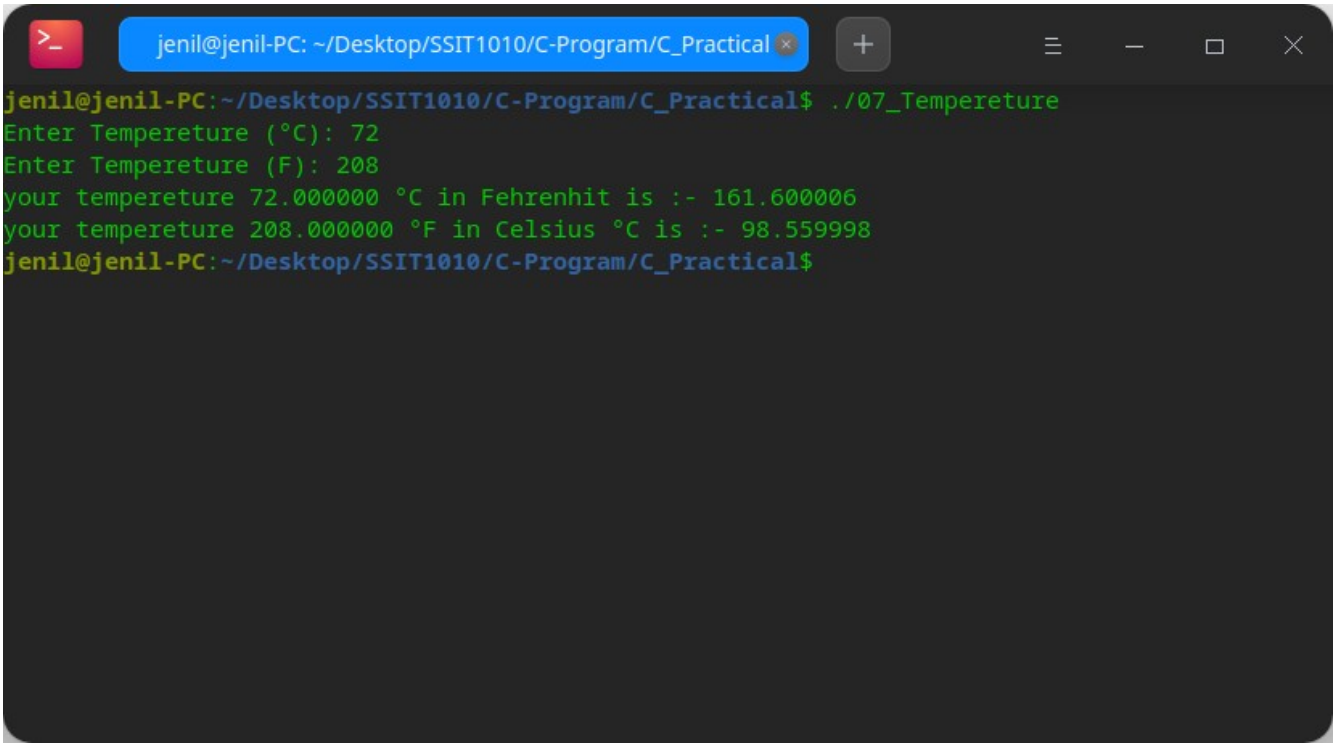
Practical 07

Aim:- Write a C program to convert celsius to Fahrenheit and Fahrenheit to Celcius.

Code:-

```
#include<stdio.h>

int main(){
	float degree,degree2;

	printf("Enter Tempereture (°C): ");
	scanf("%f",&degree);
	printf("Enter Tempereture (F): ");
	scanf("%f",&degree2);

	float answer = (degree*1.8)+32.00;
	float answer2 = (degree2-32.00)*0.56;

	printf("your tempereture %f °C in Fehrenhit is :- %f\
	n",degree,answer);
	printf("your tempereture %f °F in Celsius °C is :- %f\
	n",degree2,answer2);

	return 0;
}
```

Output:-


jenil@jenil-PC: ~/Desktop/SSIT1010/C-Program/C_Practical
jenil@jenil-PC:~/Desktop/SSIT1010/C-Program/C_Practical$ ./07_Tempereture
Enter Tempereture (°C): 72
Enter Tempereture (F): 208
your tempereture 72.000000 °C in Fehrenhit is :- 161.600006
your tempereture 208.000000 °F in Celsius °C is :- 98.559998
jenil@jenil-PC:~/Desktop/SSIT1010/C-Program/C_Practical$

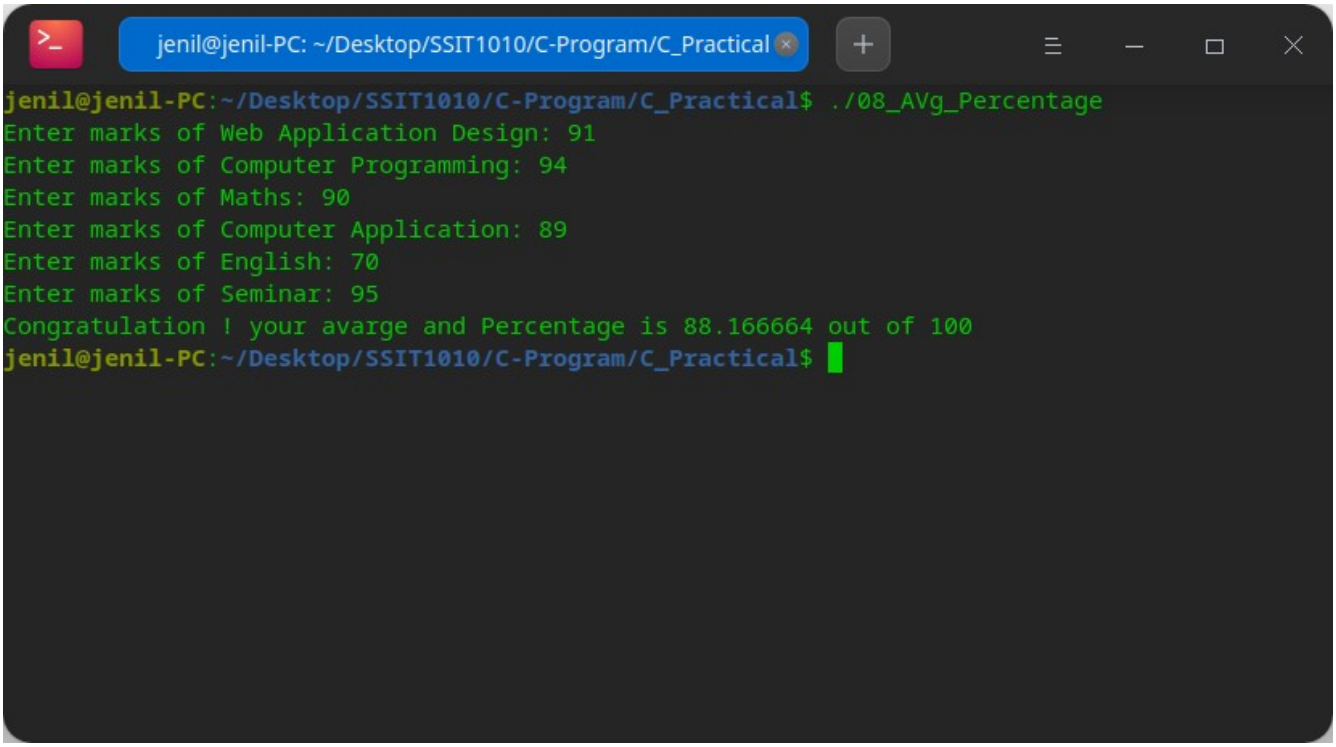
Practical 08

Aim:-Write a C program to calculate Avg of Total marks and Percentage

Code:-

```
#include<stdio.h>
int main(){
	int WAD,ICP,Maths,ICA,English,Seminar;

	printf("Enter marks of Web Application Design: ");
	scanf("%d",&WAD);
	printf("Enter marks of Computer Programming: ");
	scanf("%d",&ICP);
	printf("Enter marks of Maths: ");
	scanf("%d",&Maths);
	printf("Enter marks of Computer Application: ");
	scanf("%d",&ICA);
	printf("Enter marks of English: ");
	scanf("%d",&English);
	printf("Enter marks of Seminar: ");
	scanf("%d",&Seminar);

	float Avg = (WAD+ICP+Maths+ICA+English+Seminar)/6.00;
	printf("Congratulation ! your avarge and Percentage is %f out of
	100\n",Avg);

	return 0;
}
```

Output:-


jenil@jenil-PC: ~/Desktop/SSIT1010/C-Program/C_Practical
jenil@jenil-PC:~/Desktop/SSIT1010/C-Program/C_Practical$ ./08_AVg_Percentage
Enter marks of Web Application Design: 91
Enter marks of Computer Programming: 94
Enter marks of Maths: 90
Enter marks of Computer Application: 89
Enter marks of English: 70
Enter marks of Seminar: 95
Congratulation ! your avarge and Percentage is 88.166664 out of 100
jenil@jenil-PC:~/Desktop/SSIT1010/C-Program/C_Practical$

Practical 09

Aim:-Write C program to calculate area of ractangle.

Code:-

```
#include<stdio.h>
int main(){
        float length,width;
        printf("Enter size of Length: ");
        scanf("%f",&length);
        printf("Enter size of Width: ");
        scanf("%f",&width);
        printf("your area of Ractangle(%f x %f) is %f Meter Square\n
        ",length,width,(float)(length*width));
        return 0;
}
```

Output:-