

Program 1:

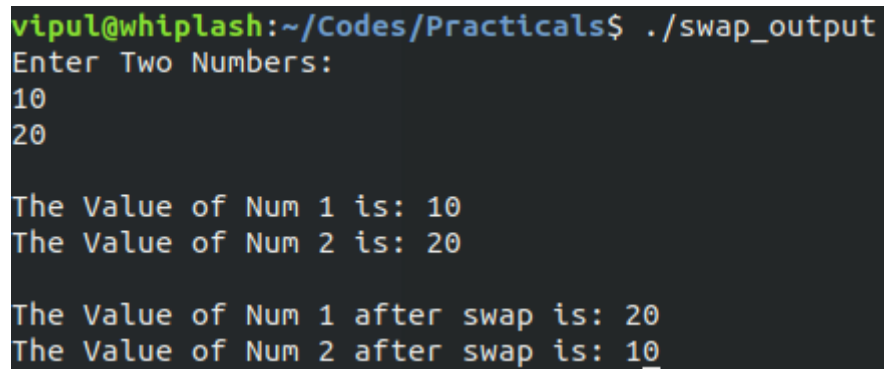
// Program to swap two numbers using temporary variable

```
#include<stdio.h>
int main(){
    int num1,num2,temp;
    printf("Enter Two Numbers:\n");
    scanf("%d %d",&num1,&num2);

    printf("\nThe Value of Num 1 is: %d\nThe Value of Num 2 is: %d\n",num1,num2);

    temp=num1;
    num1=num2;
    num2=temp;

    printf("\nThe Value of Num 1 after swap is: %d\nThe Value of Num 2 after swap is: %d\n",num1,num2);
}
```



A terminal window showing the execution of the program. The prompt is 'vipul@whiplash:~/Codes/Practicals\$'. The command './swap_output' is entered. The program prompts 'Enter Two Numbers:' and the user enters '10' and '20' on separate lines. The program then displays the initial values: 'The Value of Num 1 is: 10' and 'The Value of Num 2 is: 20'. Finally, it displays the values after swapping: 'The Value of Num 1 after swap is: 20' and 'The Value of Num 2 after swap is: 10'.

```
vipul@whiplash:~/Codes/Practicals$ ./swap_output
Enter Two Numbers:
10
20

The Value of Num 1 is: 10
The Value of Num 2 is: 20

The Value of Num 1 after swap is: 20
The Value of Num 2 after swap is: 10
```

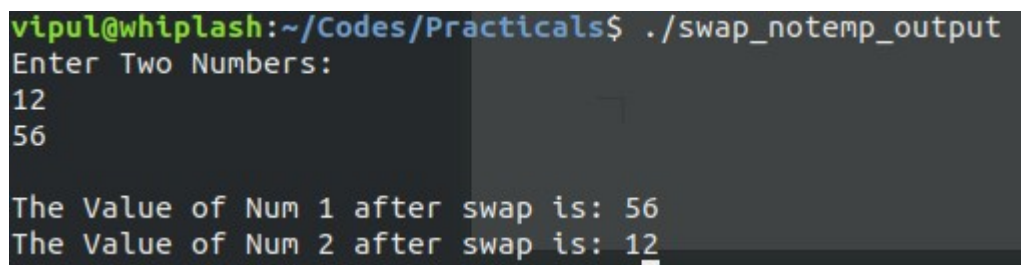
Program 2:

// Program to swap two numbers without using temporary variable

```
#include<stdio.h>
int main(){
    int num1,num2;
    printf("Enter Two Numbers:\n");
    scanf("%d %d",&num1,&num2);

    num1=num1+num2;
    num2=num1-num2;
    num1=num1-num2;

    printf("\nThe Value of Num 1 after swap is: %d\nThe Value of Num 2 after swap is %d\n",num1,num2);
}
```

A terminal window with a dark background. The prompt is 'vipul@whiplash:~/Codes/Practicals\$'. The command './swap_notemp_output' has been executed. The output shows 'Enter Two Numbers:' followed by two lines of input: '12' and '56'. Then, the output continues with 'The Value of Num 1 after swap is: 56' and 'The Value of Num 2 after swap is: 12'.

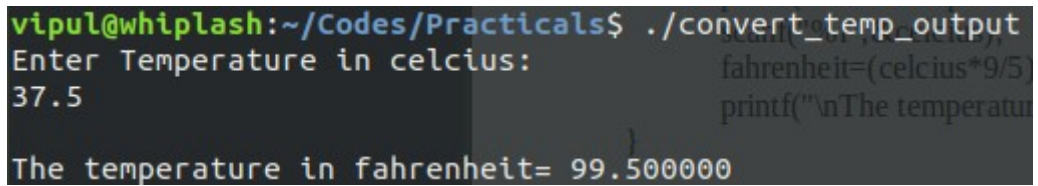
```
vipul@whiplash:~/Codes/Practicals$ ./swap_notemp_output
Enter Two Numbers:
12
56

The Value of Num 1 after swap is: 56
The Value of Num 2 after swap is: 12
```

Program 3:

// Program to Convert Temperature from Celcius to Fahrenheit

```
#include<stdio.h>
int main(){
    float celcius,fahrenheit;
    printf("Enter Temperature in celcius:\n");
    scanf("%f",&celcius);
    fahrenheit=(celcius*9/5)+32;
    printf("\nThe temperature in fahrenheit= %f\n",fahrenheit);
}
```



A terminal window showing the execution of the program. The prompt is 'vipul@whiplash:~/Codes/Practicals\$'. The user enters './convert_temp_output'. The program prompts 'Enter Temperature in celcius:' and the user enters '37.5'. The program then outputs 'The temperature in fahrenheit= 99.500000'.

```
vipul@whiplash:~/Codes/Practicals$ ./convert_temp_output
Enter Temperature in celcius:
37.5
The temperature in fahrenheit= 99.500000
```

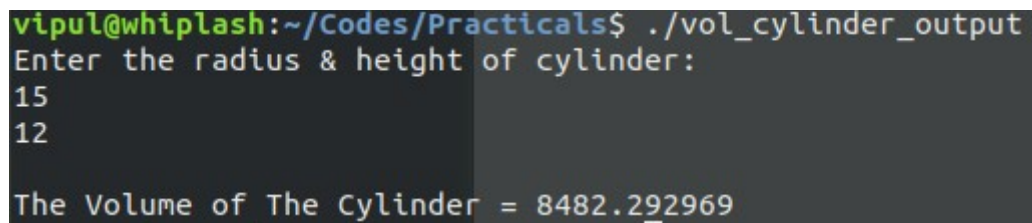
Program 4:

// Program to calculate volume of cylinder

```
#include<stdio.h>
int main(){
    float radius,height,volume;
    printf("Enter the radius & height of cylinder:\n");
    scanf("%f %f",&radius,&height);

    volume=3.14159*radius*radius*height;

    printf("\nThe Volume of The Cylinder = %f\n",volume);
}
```

A terminal window with a dark background. The prompt is 'vipul@whiplash:~/Codes/Practicals\$'. The command './vol_cylinder_output' has been executed. The program prompts 'Enter the radius & height of cylinder:'. The user has entered '15' for the radius and '12' for the height. The program has calculated and displayed 'The Volume of The Cylinder = 8482.292969'.

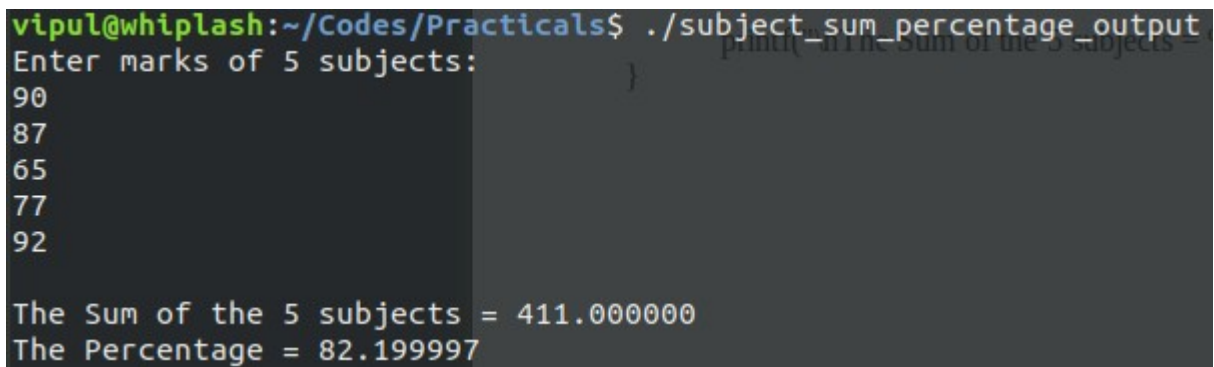
```
vipul@whiplash:~/Codes/Practicals$ ./vol_cylinder_output
Enter the radius & height of cylinder:
15
12
The Volume of The Cylinder = 8482.292969
```

Program 5:

// Program to calculate sum of 5 subjects and calculate percentage

```
#include<stdio.h>
int main(){
    float subjects[5],sum=0,percentage;
    printf("Enter marks of 5 subjects:\n");
    for(int i=0;i<5;i++){
        scanf("%f",&subjects[i]);
        sum+=subjects[i];
    }
    percentage=sum/5;

    printf("\nThe Sum of the 5 subjects = %f\nThe Percentage = %f\n",sum,percentage);
}
```

A terminal window with a dark background. The prompt is 'vipul@whiplash:~/Codes/Practicals\$'. The command './subject_sum_percentage_output' has been executed. The program prompts 'Enter marks of 5 subjects:' and the user has entered five numbers: 90, 87, 65, 77, and 92, each on a new line. The program then outputs 'The Sum of the 5 subjects = 411.000000' and 'The Percentage = 82.199997' on separate lines.

```
vipul@whiplash:~/Codes/Practicals$ ./subject_sum_percentage_output
Enter marks of 5 subjects:
90
87
65
77
92

The Sum of the 5 subjects = 411.000000
The Percentage = 82.199997
```

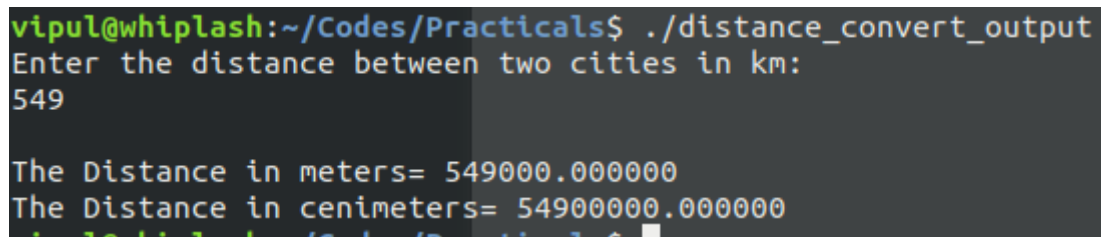
Program 6:

// Program to input distance between two cities in km. and convert to meters and centimeters

```
#include<stdio.h>
int main(){
    float distance,meters,centimeters;
    printf("Enter the distance between two cities in km:\n");
    scanf("%f",&distance);

    meters=distance*1000;
    centimeters=meters*100;

    printf("\nThe Distance in meters= %f\nThe Distance in cenimeters= %f\n",meters,centimeters);
}
```



```
vipul@whiplash:~/Codes/Practicals$ ./distance_convert_output
Enter the distance between two cities in km:
549

The Distance in meters= 549000.000000
The Distance in cenimeters= 54900000.000000
```