Experiment 1

Print The Hello World In different - different Format in C language.

```c
#include
#include
      void main(){
       printf("Hello World\n");  //Print Hello World Simply
       printf("H\nE\nL\nL\nO\n"); //Print Hello in Different Lines
        printf("H\n E\n L\n L\n O\n"); //Print Hello in verticles lines
      printf("H W\n E O\n L R\n L L\n O D"); //Print Hello World in Special Pattern
Types \
      }
```

Experiment 2

Do Operations using Arithmetic Operators.

```c
#include
void main(){
        int Num1,Num2,Sum,Sub,Mul,Div;
        printf("-----Enter The Two Number-----\n");
        printf("Enter the First Number:-");
        scanf("%d",&Num1);
        printf("Enter the Second Number:-");
         scanf("%d",&Num2);
        Sum=Num1+Num2;
        Sub=Num1-Num2;
        Mul=Num1*Num2;
        Div=Num1/Num2;
        printf("The Addition of First & Second Number is=%d",Sum);
        printf("\nThe Subtraction of First & Second Number is=%d",Sub);
        printf("\nThe Multiply of First & Second Number is=%d",Mul);
        printf("\nThe Division of First & Second Number is=%d",Div);
}
```

Output

```
-----Enter The Two Number-----
Enter the First Number: 45
-Enter the Second Number:- 20
The Addition of First & Second Number is=65
The Subustraction of First & Second Number is=25
The Multiply of First & Second Number is=900
The Division of First & Second Number is=2
```

Experiment 3

Find the Average of 5 Subject's Marks of a Student's in C language.

```
#include
void main(){
        int Num1,Num2,Num3,Num4,Num5,Average;
        printf("Enter the 5 Subject's Number Of The Student For Calculating
        their Average\n");
        printf("Mathematics Number:-");
        scanf("%d",&Num1);
        printf("English Number:-");
        scanf("%d",&Num2);
        printf("Hindi Number:-");
        scanf("%d",&Num3);
        printf("Science Number:-");
        scanf("%d",&Num4);
        printf("Computer Number:-");
        scanf("%d",&Num5);
        Average=Num1+Num2+Num3+Num4+Num5/5;
        printf("The Average Of 5 Subject's Of Student=%d",Average);
}
```

Output
```
        Enter the 5 Subject's Number Of The Student For Calculating their Average
        Mathematics Number:-45
        English Number:-65
        Hindi Number:-987
        Science Number:-2 78
        Computer Number:-58  85
        The Average Of 5 Subject's Of Student=303
```

Experiment 4

Swap two values.

```c
#include<stdio.h>

int main() {
    int num1, num2;
    printf("Enter the first number: ");
    scanf("%d", &num1);
    printf("Enter the second number: ");
    scanf("%d", &num2);
    printf("Original numbers: num1 = %d, num2 = %d\n", num1, num2);
    int temp;
    temp = num1;
    num1 = num2;
    num2 = temp;
    printf("Swapped numbers: num1 = %d, num2 = %d\n", num1, num2);

    return 0;
}
```

Output

Enter the first number: 45
Enter the second number: 12
Original numbers: num1 = 45, num2 = 12
Swapped numbers: num1 = 12, num2 = 45

Experiment 5

Find the Average of 5 Subject's Marks of a Student's in C language.

```c
#include<stdio.h>

int main() {
    float base, height;
    printf("Enter the base of the triangle: ");
    scanf("%f", &base);
    printf("Enter the height of the triangle: ");
    scanf("%f", &height);
    float area = 0.5 * base * height;
    printf("The area of the triangle is: %f\n", area);

    return 0;
}
```

Output

Enter the base of the triangle: 42
Enter the height of the triangle: 42 27
The area of the triangle is: 567.000000

Experiment 6

Find the Area of a Triangle.

```c
#include<stdio.h>
int main() {
        int a,b,c;
        printf("Enter the value of Length:");
        scanf("%d",&a);
        printf("Enter the value of Breath:");
        scanf("%d",&b);
        c=a*b;
        printf("The area of rectangle is:%d",c);
        return 0;
}
```

Output

Enter the value of Length:7
Enter the value of Breath:5
The area of rectangle is:35

Experiment 7

Program to find square root.

```c
#include<stdio.h>
#include<math.h>

int main() {\
    double num;
    printf("Enter a number: ");
    scanf("%lf", &num);
    double result = sqrt(num);
    printf("The square root of %.2lf is %.2lf\n", num, result);

    return 0;
}
```

Output

Enter the value of Length:7
Enter the value of Breath:5
The area of rectangle is:35

Experiment 8

Program to find area and perimeter of circle.

```c
#include<stdio.h>
int main()
{
    int Number; double Area,Perimeter;
    printf("Enter the value of Radius:- ");
    scanf("%d",&Number);
    Area=3.14*(pow(Number,2));
    printf("\nThe area of circle is :=%0.2lf",Area);
    Perimeter=3.14*2*Number; printf("\nThe Perimeter of Circle
    is:=%0.2lf",Perimeter);
    return 0;
}
```

Output

Enter the value of Radius:- 45
The area of circle is := 6358.50
The Perimeter of Circle is := 282.60

Experiment 9

Program to find Simple interest.

```c
#include<stdio.h>

int main() {
    float principal, rate, time;
    printf("Enter the principal amount: ");
    scanf("%f", &principal);
    scanf("%f", &rate);
    printf("Enter the time (in years): ");
    scanf("%f", &time);
    float simpleInterest = (principal * rate * time) / 100;
    printf("Simple Interest: %.2f\n", simpleInterest);
    return 0;
}
```

Output

Enter the principal amount: 45000
Enter the rate of interest 6
Enter the time (in years): 2
Simple Interest: 5400.00

Experiment 10

Program to find area of triangle using Heron's Formula.

```c
#include<stdio.h>
int main() {
        int a,b,c; float d,s;
        printf("Note one side should be greater than two.\n");
        printf("Enter the value of First side of triangle:");
        scanf("%d",&a);
        printf("Enter the value of second side of triangle:");
        scanf("%d",&b);
        printf("Enter the value of third side of triangle:");
        scanf("%d",&c);
        s=(a+b+c)/2.0;
        d=sqrt(s*(s-a)*(s-b)*(s-c));
        printf("The area of triangle using heron's formula is:%0.2f",d);
        return 0;
}
```

Output

```
Note one side should be greater than two.
Enter the value of First side of triangle:5
Enter the value of second side of triangle:7
Enter the value of third side of triangle:8
The area of triangle using heron's formula is:17.32
```