03-06-2024

-> Preprocessor directive

TYPES OF FUNCTIONS ( ) :-

1. System define Functions ( ) :- If the defination of the funition is given by system itself is called system defined funitions

   Ex:- printf( ); scanf( )

2. User defined Function( ) :- If the defination of the funition is given by user is called user defined funition.

   Ex:- main( )

TYPES OF FUNCTIONS ACCORDING TO ARGUMENTS :-

ARGUMENTS	RETURN
without	without
with	without
without	with
with	with

Without arguments without return:-

```
-> add()
   {
     int a, b, c;
     printf ("enter a, b ");
     scanf ("%d %d", &a, &b);
     c = a+b;
     printf ("%d", c);
   }
  main()
  {
   add();
  }
```

Area of rectangle:-

```
-> area()
   {
     float a, l, b;
     printf ("enter l, b");
     scanf ("%f %f", &l, &b);
     a = l * b;
     printf ("%f", a);
   }
   main()
   {
     area();
   }
```

Area of circle :- πr^2

```
-> area ()
   {
     float a, r;
     printf ("enter r");
     scanf ("%f", &r);
     a = 3.14 * r * r;
     printf ("%f", a);
   }
   main ()
   {
     area ();
   }
```

Area of triangle ; Circumference of circle ; Perimeter of rectangle ; Perimeter of square ; Diameter of circle

Area of a triangle :- $a = 0.5 * b * h$

```
-> area ()
   {
     float a, b, h;
     printf ("enter b, h");
     scanf ("%f %f", &b, &h);
     a = 0.5 * b * h;
     printf ("%f", a);
   }
   main ()
   {
     area ();
   }
```

Circumference of a circle :- $C = 2\pi r$

```
-> circumference ( )
   {
     float c, r;
     printf ("enter r");
     scanf ("%.f", &r);
     c = 2 * 3.14 * r;
     printf ("%.f", c);
   }
   main ( )
   {
     circumference ( );
   }
```

Perimeter of a rectangle :- $P = 2 * (l + b)$

```
-> Perimeter ( )
   {
     float l, b, P;
     printf ("enter l, b");
     scanf ("%.f %.f", &l, &b);
     P = 2 * (l + b);
     printf ("%.f", P);
   }
   main ( )
   {
     Perimeter ( );
   }
```

Perimeter of a square :- P = 4 * s

```
-> Perimeter ( )
   {
     float s, P;
     printf ("enter s");
     scanf ("%f", &s);
      P = 4 * s;
     printf ("%f", P);
   }
   main ( )
    {
       Perimeter ( );
    }
```

Diameter of a circle :- d = 2 * r

```
-> Diameter ( )
   {
     float r, d;
     printf ("enter r:");
     scanf ("%f", &r);
      d = 2 * r;
     printf ("%f", d);
   }
   main ( )
    {
      Diameter ( );
    }
```