

# Unit - 4

## Types of Function

# Functions

- **There can be 4 different types of user-defined functions, they are:**
  - 1) Function with no return and no argument
  - 2) Function with no return but arguments
  - 3) Function with return but no argument
  - 4) Function with return and arguments

# Functions

- **Function with argument and No Return value:**
- Function with no return no argument, neither returns a value nor accepts any argument.
- In this method, We won't pass any arguments to the function while defining, declaring, or calling the function.
- This type of functions in C will not return any value when we call the function from main() or any sub-function.
- **Note:** You must add void as function return type for this type of function.

## Syntax:

```
void function_name()  
{  
    // Function body  
}
```

# Functions

- **Function with argument and No Return value:**
- This method allows us to pass the arguments to the function while calling the function. But,
- This type of function will not return any value when we call the function from main () or any subfunction.
- It does not return a value but accepts arguments as input.
- For this type of function you must define function return type as void.

## **Syntax:**

```
void function_name(type arg1, type arg2, ...)  
{  
    // Function body  
}
```

# Functions

- **Function with no argument and with Return value:**
- It returns a value but does not accept any argument.
- The Data Type of the return value will depend upon the return type of function declaration. For instance, if the return type is int then return value will be int.

## Syntax:

```
return_type function_name()  
  
{  
    // Function body  
    return some_value;  
}
```

**Note:** return\_type and some\_value must be declared with same type.

# Functions

- **Function with argument and Return value:**
- This method allows us to pass the arguments to the function while calling the function.
- This type of function will return some value when we call the function from main () or any subfunction.
- Data Type of the return value will depend upon the return type of function declaration.

## **Syntax:**

```
return_type function_name(type arg1, type arg2, ...)  
{  
    // Function body  
    return some_variable;  
}
```