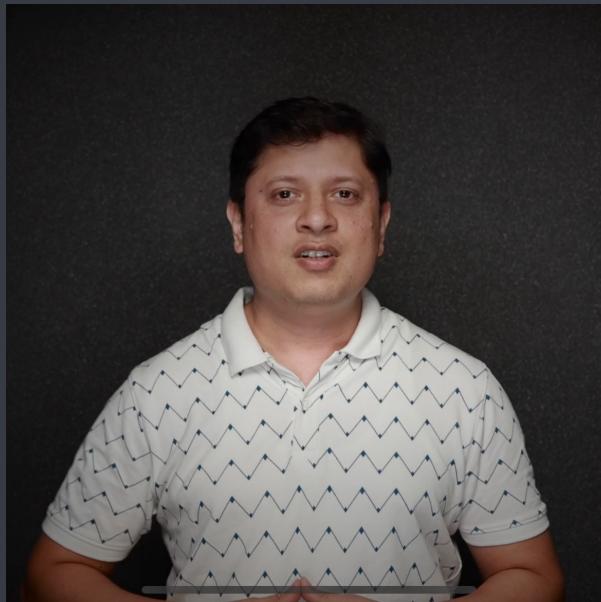


C Language

Function



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Agenda

- ① Ways to define a function
- ② Header files and Library files

Ways to define a function

1. Takes Nothing, Returns Nothing
2. Take something, Returns Nothing
3. Takes Nothing, Return Something
4. Take something, Return Something

$f1()$ a b
 { $\boxed{10}$ $\boxed{20}$

```
int a=10;  
int b=20;  
 $f1();$ 
```

$f2()$ { }

```
int c;  
 $c=a+b;$ 
```

{

}

```
#include<stdio.h> T N R N Prototype  
void add(); ← function declaration  
int main()  
{  
    add(); ← function call  
    return 0;  
}  
void add() ← TN function definition  
{  
    int a, b, c;  
    printf("Enter two numbers");  
    scanf("%d %d", &a, &b);  
    c = a + b;  
    printf("Sum is %d", c);  
}  
No return keyword means RN
```

```
#include <stdio.h> TSRN parameter  
void add(int ,int); == Argument  
int main()  
{  
    int x=3, y=4;  
    add(x,y);  
     Actual Arguments  
    return 0;  
}  
void add(int a,int b)  Formal Arguments  
{  
    int c;  
    c=a+b;  
    printf("Sum is %d",c);  
}  
}
```

```
#include<stdio.h> T N RS
```

```
int add();  
int main()  
{  
    int s;  
  
    s = add();  
    printf("sum is %d", s);  
    return 0;  
}
```

```
int add()
```

```
{
```

```
    int a, b, c;
```

```
    printf("Enter two numbers");  
    scanf("%d %d", &a, &b);
```

```
    c = a + b;
```

```
    return c;
```

return

- ① returns value
- ② returns control

You can only
return one value
of any type

value return hokar

Vapas wahin Jati
hai, Jahan se function

call hua
hota hai.

```
#include <stdio.h> TSRS
```

```
int add(int, int);
```

```
int main()
```

```
{ int s, x=3, y=4; Call by value
```

```
s = add(x, y); ←
```

(function call by
passing values)

```
printf("Sum is %d", s);
```

```
return 0;
```

```
}
```

```
int add(int a, int b)
```

```
{
```

```
int c;
```

```
c = a + b;
```

```
return c;
```

```
}
```

Definition of predefined function

→ Library files

Declaration of predefined function

→ Header files

Ask Yourself

1. Function call vs Function Definition vs Function Declaration
2. Function saves memory
3. main() is a userdefined function.
4. Header file vs Library file
5. When to write void?
6. When to write return?
7. Return type of main()
8. call by value
9. Function Prototype = function declaration
10. Can we call main() function()? Yes

