RED & WHITE®

Multimedia Education

Shaping "skills" for "scaling" higher...!!!

WELCOME,

PROGRAMMERS

TYPES OF UDF

TNRN

Take Nothing,
Return Nothing

TNRS

Take Nothing,
Return Something

TSRN

Take Something,
Return Nothing

TSRS

Take Something,
Return Something

Let’s see another remaining two **types of functions** in detail...

03

TNRS

Take Nothing, Return Something

Example of TNRS

```
return_type function_name(parameters)
{
    // Function body (code)
    return value; // Return statement (optional)
}
```

Example

```
int get_square()
{
     int a = 5;
     return a*a;
}
```

Use of TNRS function

Finds the function

```c
#include<stdio.h>


int get_square()
{
      int a = 5;
      return a*a;
}

void main()
{
      printf("Square: %d", get_square());
}
```

Replace the output from function body

25

```
// Output:
Square: 25
```

04

TSRS

Take Something, Return Something

Example of TSRS

```
return_type function_name(parameters)
{
    // Function body (code)
    return value; // Return statement (optional)
}
```

Example

```
int get_cube(int a)
{
     return a*a*a;
}
```

Use of TSRN function

```c
#include<stdio.h>

int get_cube(int a)
{
      return a*a*a;
}

void main()
{
      printf("Cube: %d", get_cube(4));
}
```

Passed in Parameters

64

Replace the output from function body

Arguments Passing

```
// Output:
Cube: 64
```

01.

What is Nested Function?

WHAT IS NESTED FUNCTION?

NESTED FUNCTION

A **nested function** usually refers to **a function that is defined within another function**.

However, it's important to note that true nested functions (functions defined within functions) are **not allowed in C language**.

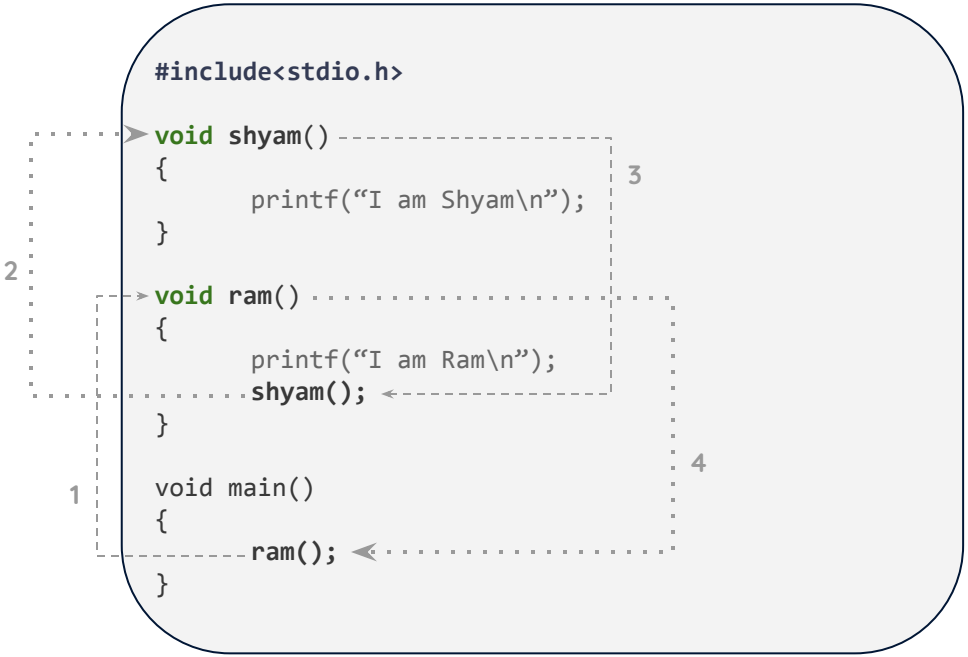
Each **function** in C **must be independent** and **can't be defined inside another function**.

NESTED FUNCTION

Here in C language, kindly note that we can only **call the function within another function**.

We cannot define the function within the function in C language.

Use of Nested function




```
// Output:
I am Ram
I am Shyam
```

02.

WHAT IS RECURSION?

RECURSION

Recursion is a programming concept in which **a function calls itself** directly or indirectly in order to solve a problem.

A function that calls itself is called a **recursive function**, and the **process of repeatedly executing the same set of instructions** is known as **recursion**.

Use of Recursion

```c
#include<stdio.h>

int fact(int n)
{
        if(n <= 1)
                return 1;
        else
                return n*fact(n-1);
}

void main()
{
        printf("Factorial is %d", fact(3));
}
```

```
// Output:
Factorial is 6
```

LANGUAGE

Let’s start now...