FUNCTION in PROGRAMMING

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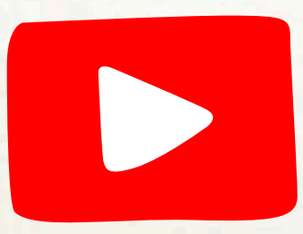
In C, a function is a block of code designed to perform a specific task, which can be called from elsewhere in the program. Functions improve code organization, readability, and reusability.



Declaration :

This tells the compiler about the function's name, return type, and parameters. It’s optional if the function definition appears before the function call.

Syntax: Data Type Function Name ();

```
int add(int a, int b);
void add();
void fact();
void info();
```

“अपनों को संकट में डाल कर कार्य संपन्न करने वालों की विजय होती है कायरों कि नहीं ।”

REVIEW

Definition:

This contains the actual code for the function. It's where the logic resides.

Syntax:

```
data type function name()
{ // set of code
}
```

Example:

```
void add()
{
int a=40,b=60,c;
c=a+b;
printf("sum=%d",c);
}
```

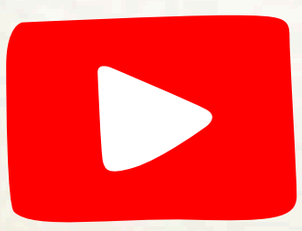
REVIEW

Calling

This executes the function with specific arguments.

c main function

```
void main()
{
clrscr();
add(); //Function Calling
getch();
}
```



#include <stdio.h>

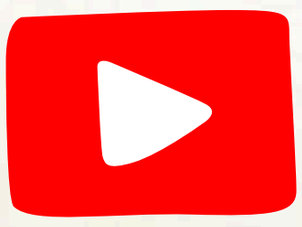

```
// Function definition: prints a
greeting message
void greet()
{
printf("Hello, welcome to C
programming!\n");
}

int main() {
greet(); // Function call
return 0;
}
```

- void greet():
- This is the function declaration and definition.
- The void return type indicates that this function does not return any value.
- Inside the function, printf prints a message to the console.
- main():
- The main function is the entry point of the program.
- The greet() function is called within main.
- Output: When you run the program, it will disp

Types of Function

1. **Function with No Return Value and No Parameters**
2. **Function with No Return Value but with Parameters**
3. **Function with Return Value but No Parameters**
4. **Function with Return Value and Parameters**

“तपस्या धर्म का पहला और आखिरी कदम है।”



- **Function with No Return Value and No Parameters**

```
#include <stdio.h>

void greet()
{
printf("Hello, World!\n");
}

int main()
{
greet(); // Function call
return 0;
}
```

Used when the task is self-contained and does not depend on external data.

REVIEW

- Function with No Return Value but with Parameters

```
#include <stdio.h>

void displaySum(int a, int b)
{
    printf("Sum: %d\n", a + b);
}

int main()
{
displaySum(5, 3); // Function call with arguments
    return 0;
}
```

REVIEW

Function with Return Value but No Parameters

```
#include <stdio.h>

int getNumber()

{
    return 42;
}

int main() {
int num = getNumber(); // Function call
    printf("Number: %d\n", num);
    return 0;
}
```

REVIEW

Function with Return Value and Parameters

```
#include <stdio.h>

int add(int a, int b)
{
    return a + b;
}

int main()
{
int result = add(7, 3); // Function call with
arguments
    printf("Result: %d\n", result);
    return 0;
}
```

Most commonly used when both input and output are required.

"शिक्षा भविष्य के
लिए पासपोर्ट है जो
आज इसके लिए
तैयारी करते हैं।"