

## Beginning of C programming →

\* A simple program to print a line or some text

```
// first program in C
#include <stdio.h>

// function main begins program execution
int main (
{
    printf(" Hello India\n");
    return 0;
} // end function main
```

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Output HelloIndia

Now step by step we will see that what this program basically consist line by line

⇒ // first program in C

// this shows that the following this is a comment.

- (a) to improve readability
- (b) do not cause computer to perform any action
- (c) ignored by compiler and do not cause any M/C language object code to be generated
- (d) It just help the people to read and help the program.

[ /\* ..... It is used to multiline comment.  
.....  
\*/

⇒ #include Preprocessor Directive

In this #include <stdio.h> is a directive to preprocessor. This tells to preprocessor to include the contents of the

Standard input/output header (<stdio.h>) in the program.

Working of printf ( ) function is defined by the <stdio.h>

⇒ int main ( )

→ Here main ( ) is the function from this program starts executing.

→ A program can have more than one function but there will a one function called main ( ) function. A function can return a value or may be not.

→ In this int main ( ) [ Here int datatype value will be returned by main function ]

If we don't want it to return any value then we can write it as

void main ( ) [ void means nothing ]

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# { } → start of body ⇒ left braces  
→ end of body → Right braces. [ This pair of braces and the portion of the program b/w this is called block ]

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# printf ( "Hello India\n" ); [ An Output Statement ]

It commands the computer to print the character between the " " . and ; is statement terminator to indicate the end of this statement.

⇒ \n in this \ is an 'escape character'. When compiler encounters with \ then it looks for the next character & combines it with the backslash to form an "escape sequence". So \n means go to the next line or new line for the cursor.

⇒ return 0; 'Return Zero', as we said function main ( ) here starts with int so it needs to have a value. So

Value 0 is passed to main function and this will be end of program as block ends with 3 right braces.

Here return 0; indicates the successful execution of the program.

### Brief Explanation of this program.

- ⇒ Every program starts from main() function
- ⇒ printf() is a library function to display output which will only work if #include <stdio.h> is included at the beginning.
- ⇒ Here, stdio.h is a header file (Standard input and output header file) and #include is command to paste the code from the header file when necessary.
- ⇒ When compiler encounters printf() function & doesn't find stdio.h header file, compiler shows error.
- ⇒ return 0; indicates the successful execution of the program.