
Welcome!
We're glad you're here!

PROGRAM…..!

- What is program?

  Set of instructions that you give to a computer so that it will do a particular task.

- Why we need to learn programming languages?

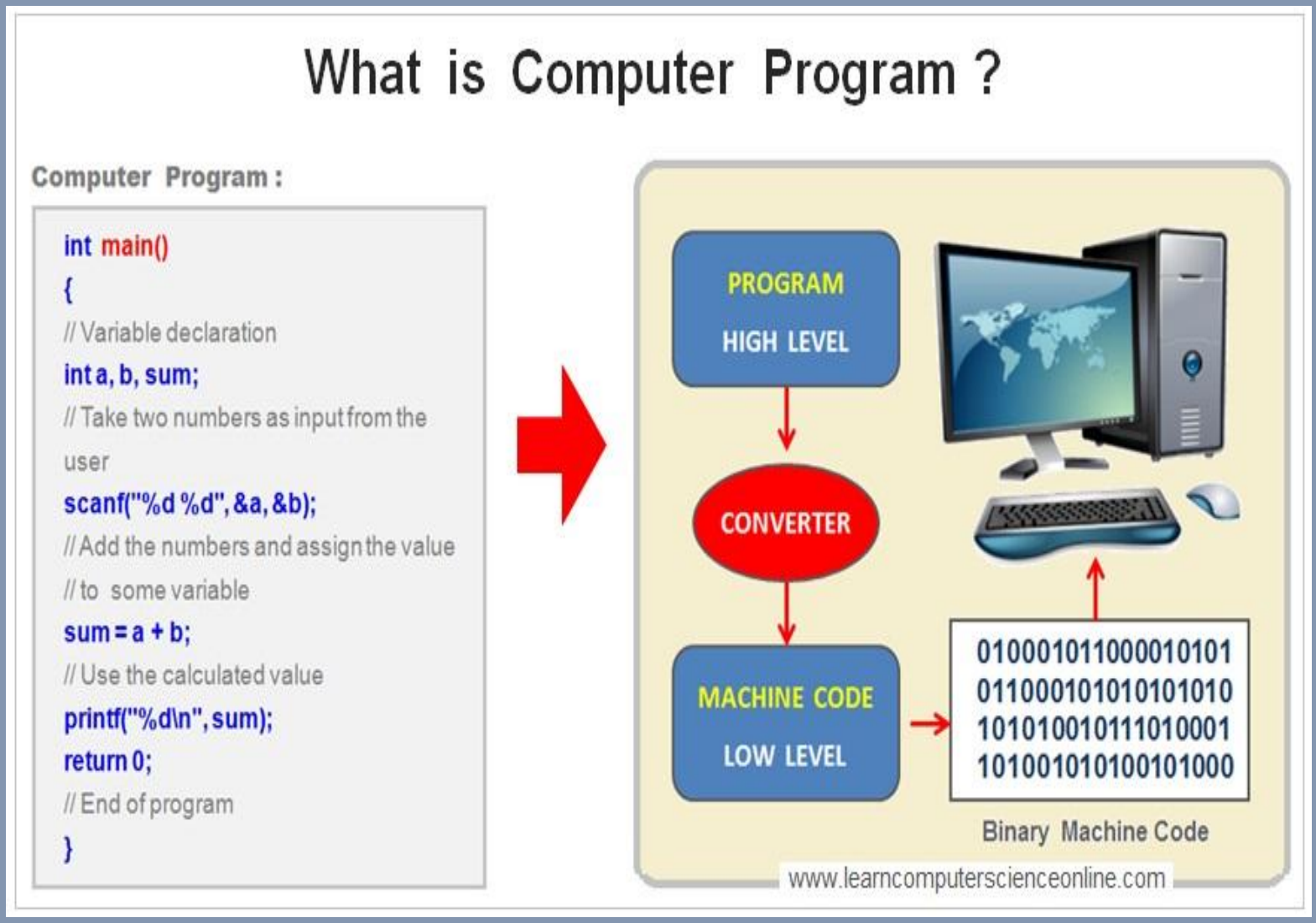
  Computers can only understand machine level language (i.e., 0's and 1's binary digits)

- MACHINE LEVEL LANGUAGE:-

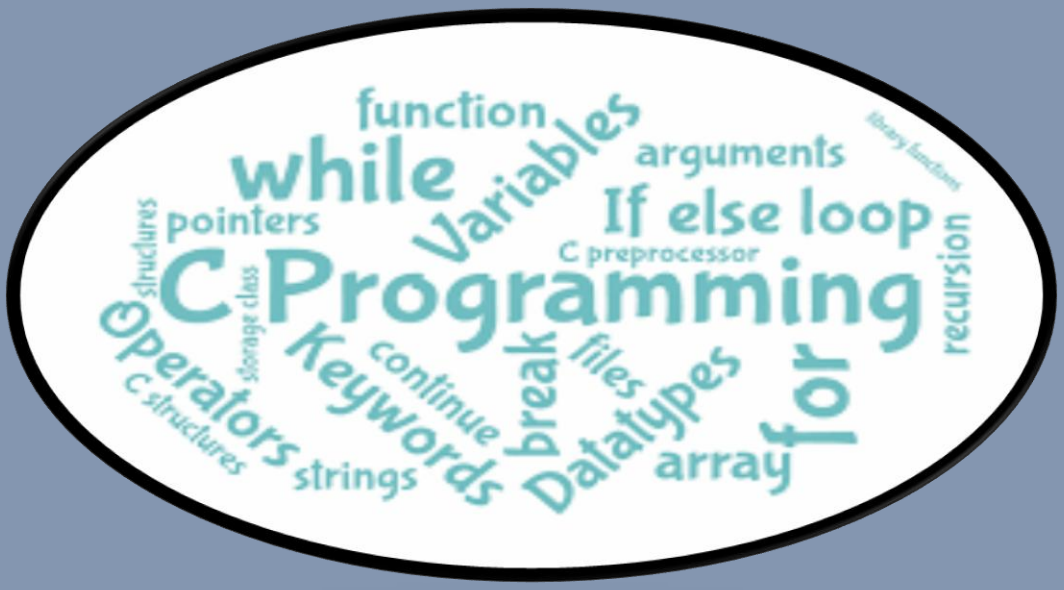
  It contains only binary digits. It executes faster, but difficult to understand and program by the programmer.

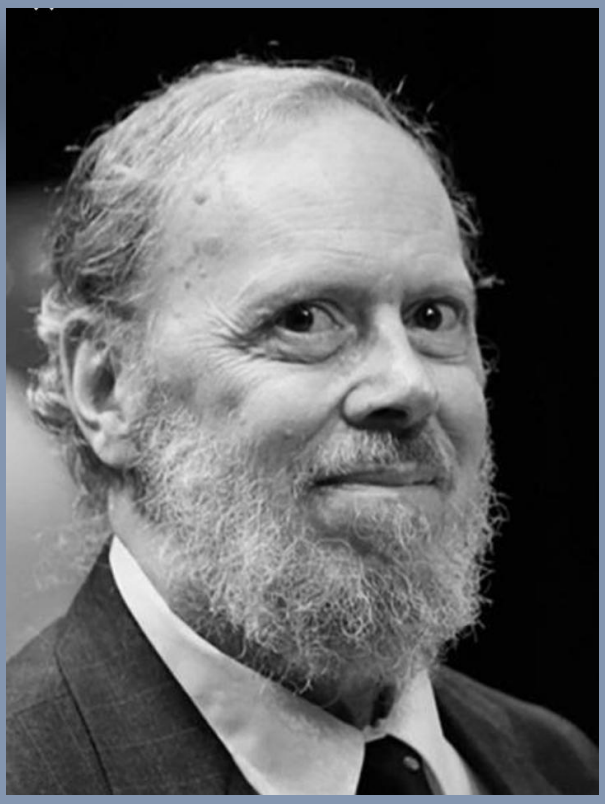
- HIGH LEVEL LANGUAGE:-
  As it is machine independent language it is very easy to program.
  They have simple English words as commands therefore easy to understand and program.
  Ex:- C, C++ ,JAVA, PYTHON etc…

- COMPILER:- It translates HLL to MLL i.e., source code into object code. This process is called compilation.



C PROGRAMMING LANGUAGE .....!



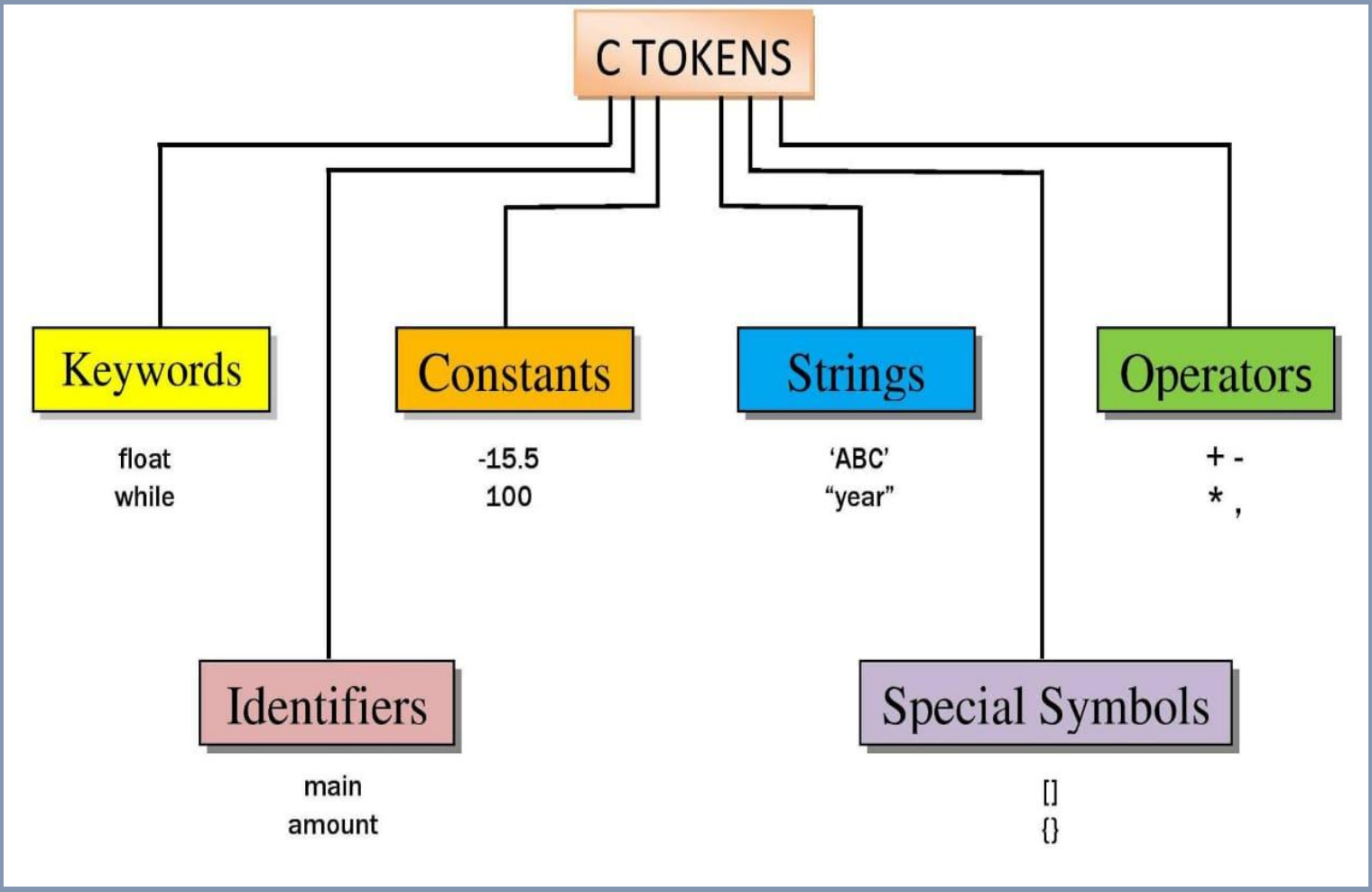


♣ **C** is known as Mother of all programming languages present in the software industry.

History:- "Dennis Ritchie" the founder of C programming language developed C in the year 1972 at Bell laboratories U.S.A….

Basics of C:-

- **Tokens :-** Smallest programming element.



- KEYWORDS:- The variables which have special meaning and are predefined in the C libraries.
- IDENTIFIERS:- The name given to the programming element for identification.
- CONSTANTS:- Fixed value.
- STRINGS:- Sequence of characters enclosed within the double quotes.
- SPECIAL CHARACTERS:- These are the symbols that have special built-in meaning.

❖ OPERATORS:- It is a mathematical sign used for the operations.

Ex:- a+b, a-b, a*b, a/b, a%b (Arithmetic operators)

i++, i- - (increment/decrement)

a=10, 10==10, a>b, a<b, a>=b, a<=b, a!=2(Relational)

&&, ||, ! (Logical operators)

Units of Computer Memory Measurements

1 Bit	= Binary Digit
8 Bits	= 1 Byte
1024 Bytes	= 1 KB [Kilo Byte]
1024 KB	= 1 MB [Mega Byte]
1024 MB	= 1 GB [Giga Byte]
1024 GB	= 1 TB [Terra Byte]
1024 TB	= 1 PB [Peta Byte]
1024 PB	= 1 EB [Exa Byte]
1024 EB	= 1 ZB [Zetta Byte]
1024 ZB	= 1 YB [Yotta Byte]
1024 YB	= 1 Bronto Byte
1024 Brontobyte	= 1 Geop Byte

Geop Byte is the Highest Memory.

Data Type	Range	Bytes	Format
signed char	-128 to + 127	1	%c
unsigned char	0 to 255	1	%c
short signed int	-32768 to +32767	2	%d
short unsigned int	0 to 65535	2	%u
signed int	-32768 to +32767	2	%d
unsigned int	0 to 65535	2	%u
long signed int	-2147483648 to +2147483647	4	%ld
long unsigned int	0 to 4294967295	4	%lu
float	-3.4e38 to +3.4e38	4	%f
double	-1.7e308 to +1.7e308	8	%lf
long double	-1.7e4932 to +1.7e4932	10	%Lf

Note: The sizes and ranges of int, short and long are compiler dependent. Sizes in this figure are for 16-bit compiler.

STRUCTURE OF "C" PROGRAM:-

1. HEADER:- A header file is a predefined file with extension .h which contains C function declarations.

   Ex:- #include<stdio.h>

   #include<math.h>

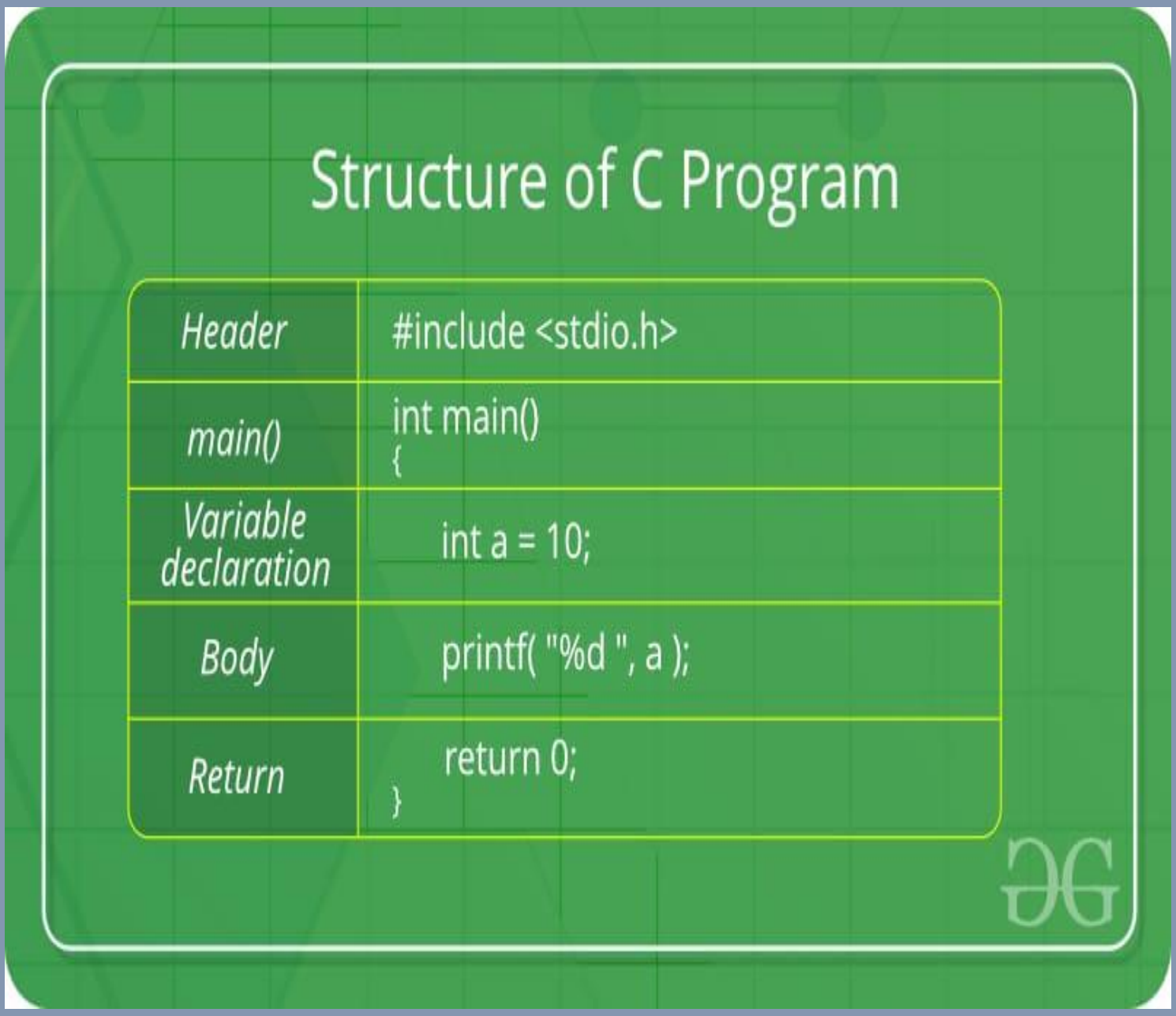
   #include<conio.h>

2. main( ):- Every program must have only one main function. Execution starts from the main function.
3. VARIABLE DECLARATION :- int a=77;

4. BODY:- It contains set of statements.

;→ Statement terminator

5. }:- Indicates end of the program.



DO YOU WANT TO SEE A COLOURFUL MAGIC OF C PROGRAM….!???

Program:-

File Edit Search Run Compile Debug Project Options Window Help

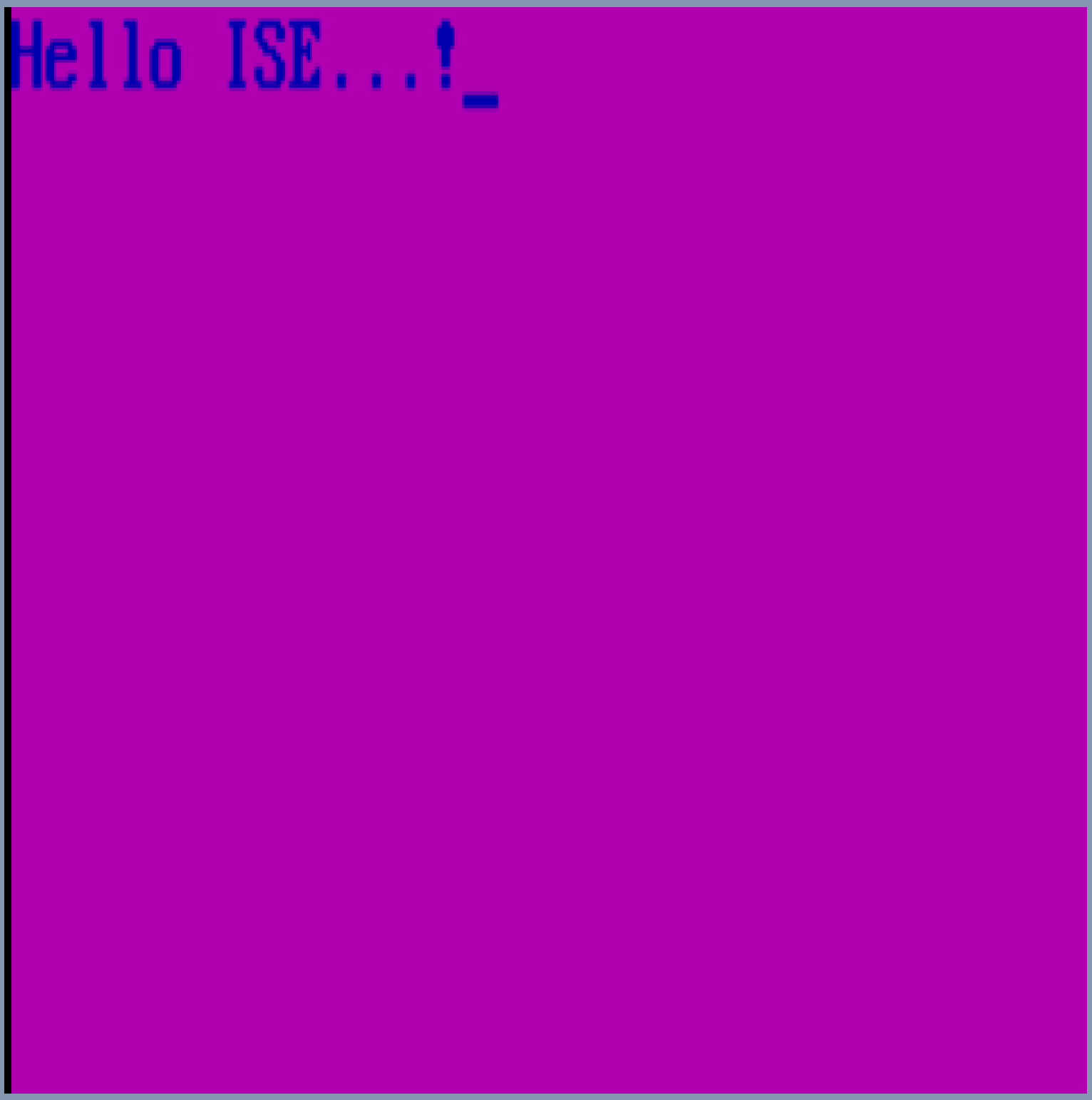
COLOR.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
textbackground(LIGHTMAGENTA);
textcolor(BLUE);
clrscr();
cprintf("Hello ISE...!");
getch();
}
```

1:1

F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

Output:-




Thank You!