

FUNDAMENTALS OF C

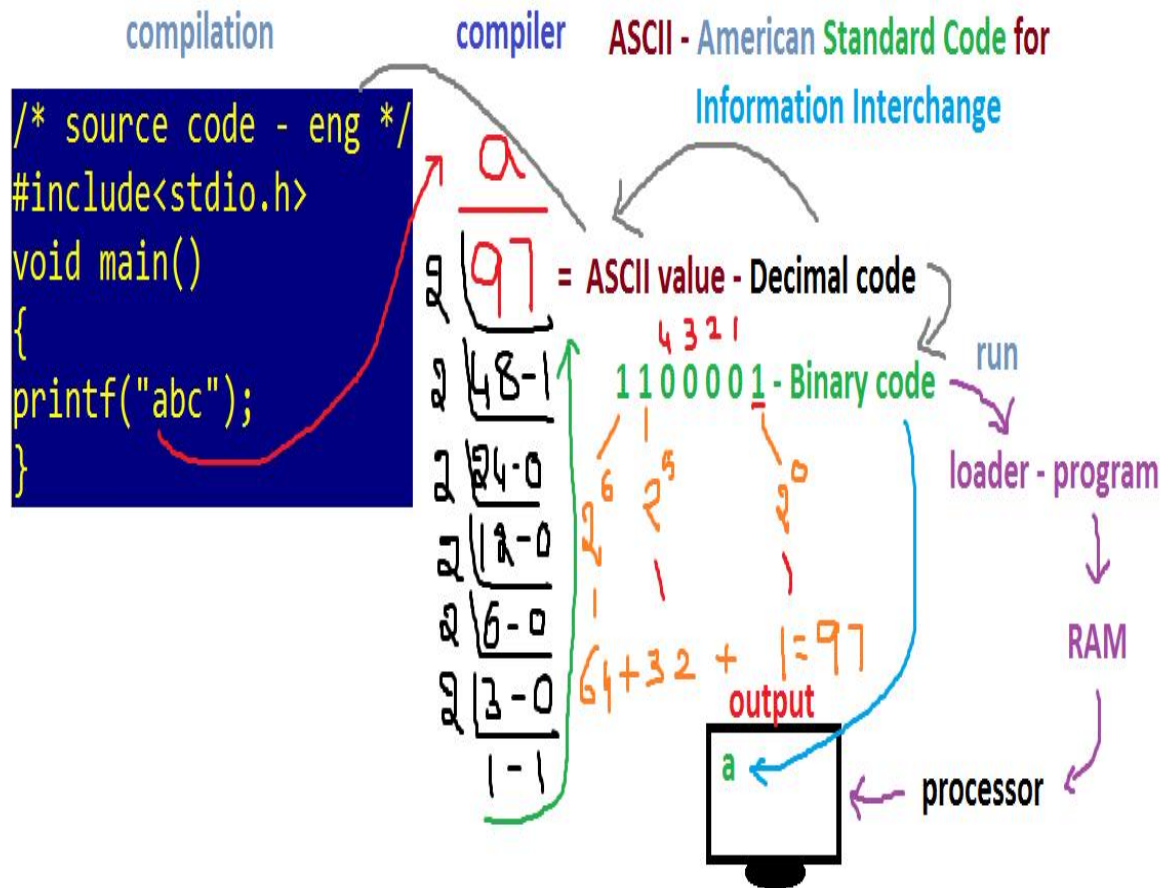
C CHARACTER SET: Every programming uses a particular character set and by using this character set only we can make the programs [software]. C uses ASCII character set which comes with 256 characters. In this we are having **52 alphabets**, [a-z, A-Z], **10 digits** [0-9], **44 operators** [+, -, *,...], **14 separators** [, . ; : “ ” ‘ ’ { },...] and remaining all are special characters.

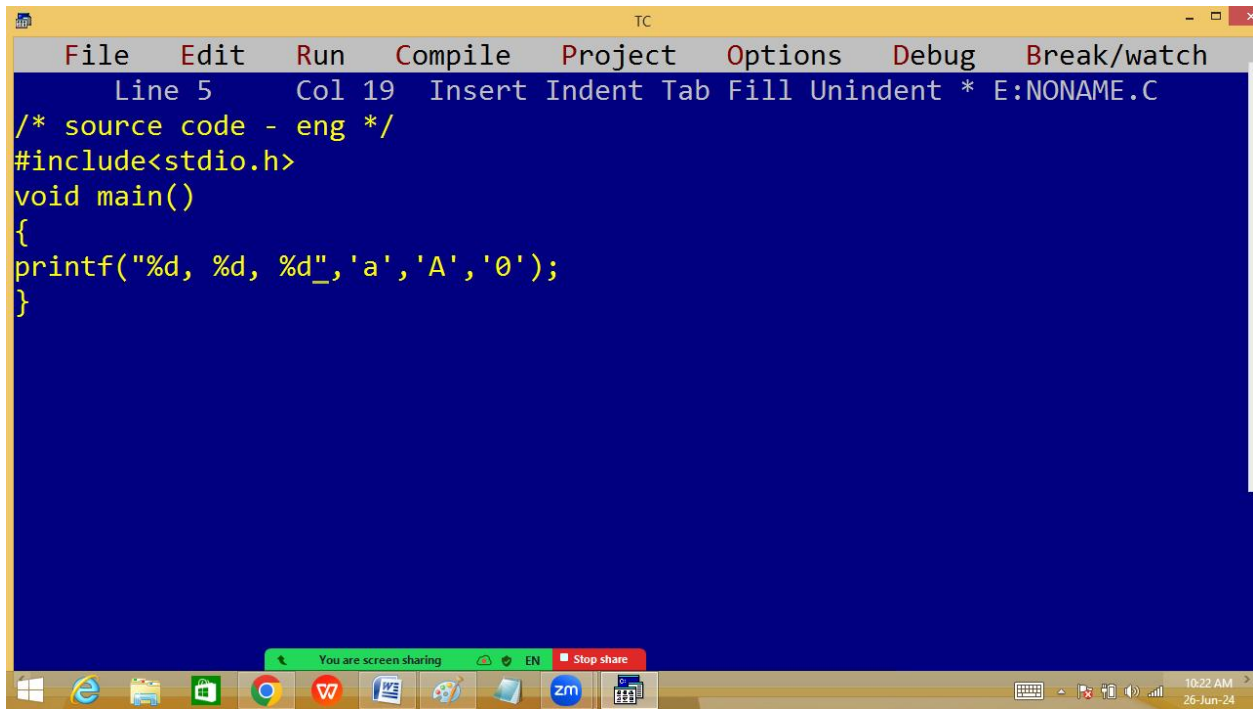
<u>ENGLISH LANGUAGE</u>	<u>C LANGUAGE</u>
Alphabet set - 26	ASCII – 256 characters
English words	Keywords – 32
English sentences	Instructions
English paragraphs	Programs
English documents	software

<u>Characters</u>	<u>ASCII values</u>
a-z	97-122
A-Z	65-90
0-9	48-57
Space	32
+	43
*	42
Esc	27

Back Space	8
Tab key	9

Compilation and execution process:

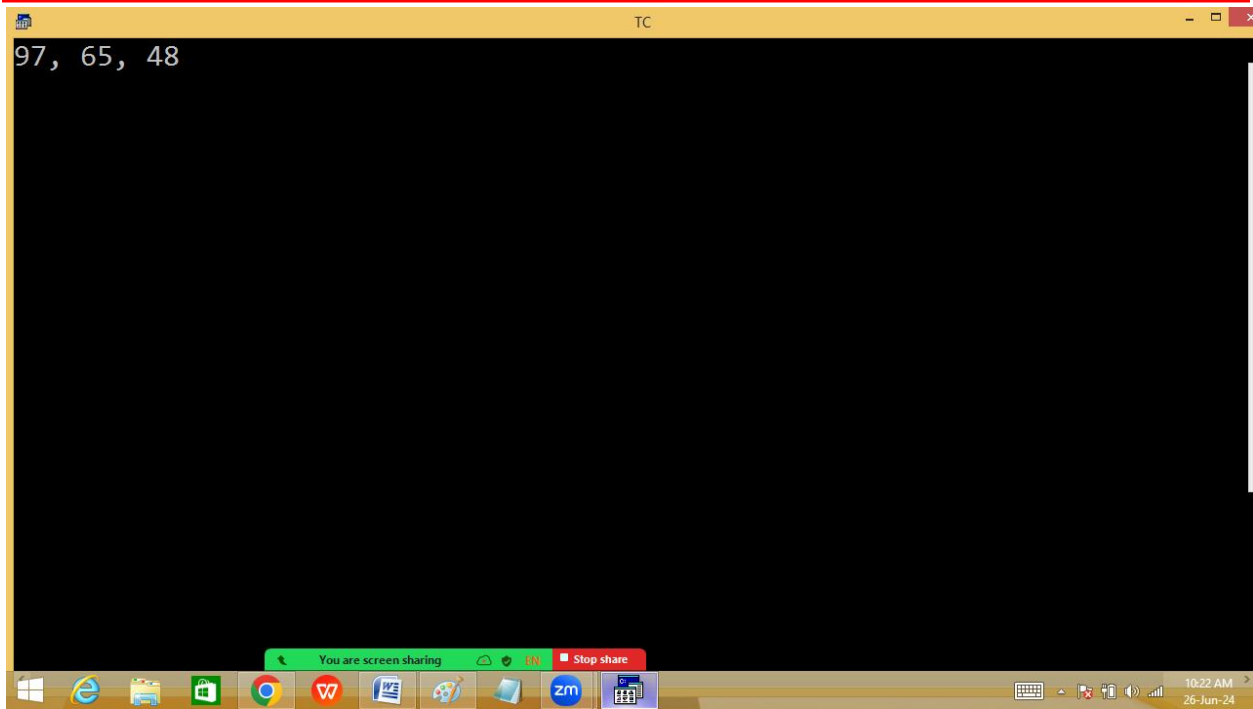




The screenshot shows the Turbo C++ (TC) IDE interface. The title bar reads "TC". The menu bar includes "File", "Edit", "Run", "Compile", "Project", "Options", "Debug", and "Break/watch". The status bar at the top indicates "Line 5", "Col 19", and "Insert Indent Tab Fill Unindent * E:NONAME.C". The main editing area has a blue background and contains the following C code:

```
/* source code - eng */  
#include<stdio.h>  
void main()  
{  
printf("%d, %d, %d_", 'a', 'A', '0');  
}
```

At the bottom, a Windows taskbar is visible with icons for various applications. A green notification bar above the taskbar says "You are screen sharing" with a "Stop share" button. The system clock in the bottom right corner shows "10:22 AM" and "26-Jun-24".



The screenshot shows the Turbo C++ (TC) IDE interface after execution. The title bar reads "TC". The main editing area, which previously contained code, now has a black background and displays the output of the program:

```
97, 65, 48
```

The Windows taskbar and the "You are screen sharing" notification bar are also visible at the bottom, matching the top screenshot. The system clock shows "10:22 AM" and "26-Jun-24".

**ASCII CHARACTER SET – 256 -C & C++ - American
Standard Code for Information Interchange – IBM
Corporation – International Business Machines**

**JAVA/.NET/PY-UNICODE CHARACTER SET – Universal
Code – 65536 characters**

C – TOKENS

The smallest individual words we are using in developing a C program are called Tokens.

They are of different types.

1. **Keywords**: The system predefined / reserved words are called keywords. Each keyword is having certain meaning and we can't change this meaning. C comes with 32 keywords.

Eg: auto, break, char, continue, case, const, do, double, default, else, enum, extern, for, float, goto, int, long, while, switch, union, typedef, register,...

