

C programs.

- **Language**:- The ~~int~~ Media Communication between two person is called as language.
- **Machine language**:- The Communication between user and a Computer system is called as an machine language.
- **Translator**:- In computer i.e The Computer understand binary language and we understand English etc so There are 3 transistor in computer which translate the language into binary the Computer process on it and again show us in English on Computer desktop / window.

following are translator.

- ① Compiler
- ② Insulator
- ③ Assembler.

so C/C++ use the Compiler -

How work compiler - it traverse the first All program and lastly show error once. while you compile the program.

~Shailesh

How and where type our C/C++ code.

- ① Open MS-Dos / Turbo C++.
- ② type your code
- ③ save = Ctrl+S
- ④ compile.
- ⑤ Run = ~~Alt~~ ^{Alt} + R.

TO see again your output

press F5.

operator used in C++ -

short trick to remember LARA

L - Logical - $==, !=, &&, \&\&, !$

A - Arithmetic - $+, -, *, \%, /$

R - Relational - $>, >=, <, <=$

A - Assignment - $=$

data - simply value or set of value.

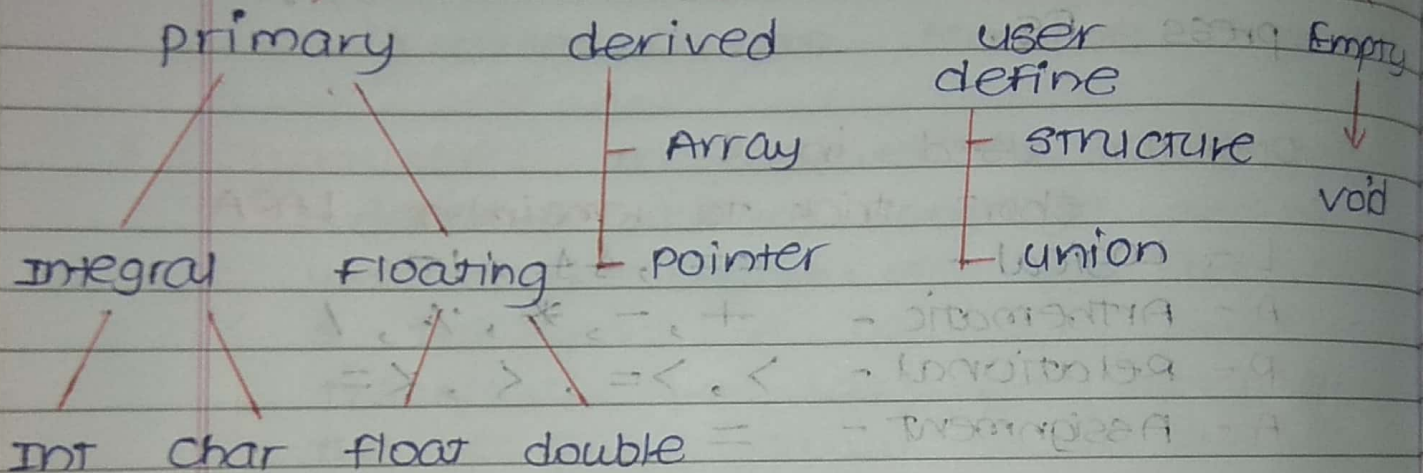
we declare the variable in data type.

variable - which varies the value.

different data type store the different type of value.

data type

data type



Format specifier in C language and Range

data type	format specifier	storage
char	%c	1 byte = 8 bit
int	%d	2 byte = 16 bit
float	%f	4 byte = 32
double	%lf	8 byte = 64
long int	%ld	8 byte
string	%s	

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Range of The data Type

data Type	Range
Char	-128 to 127 / 0-255
Int	-32768 to 32767
Float	1.2×10^{-38} to 1.2×10^{38}
double	2.3×10^{-308} to 2.3×10^{308}

• Input/Output statement :-

Input \rightarrow scanf("format specifier", &variable);

&variable \rightarrow at the address of variable.

store the value at the / in the variable

Output \rightarrow printf("format specifier", variable
or "message");

header file :- header file mean the statement which we use in C program, the meaning / prototype of every statement that is written as follow.

#include <file name.h>
.h \rightarrow .header file.

Ex .

#include <stdio.h>
stdio.h \rightarrow standard input output.
header file.

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Now, we just write our first C program to printing our name.

```
#include <stdio.h>
```

```
main()
```

```
{
```

```
printf("shailesh mane");
```

```
}
```

this will print / output is
output →

Shailesh mane.

following are the structure of C program

```
#include <stdio.h>
```

```
main()
```

```
{
```

```
declaration of variable ;
```

```
[statement / block] ;
```

```
}
```

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- Write a program in C to addition of two NO.

```
#include <stdio.h>
main()
{
    int a, b, c;
    printf("Enter the two number");
    scanf("%d %d", &a, &b);
    c = a + b;
    printf("%d", c);
}
```

Output :-

Enter the two number
= 5 5
= 10.

How to Run program on page.

- Read instruction one by one

a	b	c
5	5	10

- write a program in C to calculate area of circle.

```
#include <stdio.h>
main()
{
    int a, r, pi = 3.14;
    printf("Enter the radius");
    scanf("%d", &r);
    a = pi * r * r;
    printf("The area of circle is %d", a);
}
```

output

Enter the radius
r = 2

The area of circle is 12.56

r	a
2	12.56

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