

Data types

Data types- is a finite set of values with set of rules for different operations. $A='1'$ $B='2'$ $A+B$ 12

Types:

primary DT	secondary DT	User defined DT	void DT
Int Float Char	Array Structure Union Pointers	Enum Typedef	

The integer data type consists of a subset of integers. It consists of a sequence of digits preceded by sign(+) / (-)

The range of values and memory requirements

Data type	Bytes	Range	format
Short int Or int Or signed short int	2	-32768 to +32767 int a=32768	%d
Unsigned short int or unsigned int	2	0 to 65535	%u
Long int Or signed long int Or long	4	-2147483648 to +2147483647	%ld
Unsigned long int Or	4	0 to 4294967295	%lu

unsigned long			
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Float data type

Consists of subset of real numbers

Data type	Bytes	Range	Format
float	4	-3.4e 38 to +3.4e 38 3.4×10^{38}	%f
double	8	-1.7 e 308 to + 1.7 e 308 10^{308}	%lf
Long double	10	-1.7e 4932 to +1.7e 4932 10^{4932}	%Lf

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Character data type

Used to store special characters and alphabets

Data type	Bytes	Range	Format
Signed char or char	1	-128 - +127	%c
Unsigned char	1	0 to 255	%c