

Ans →

Data type → Data type is to declare or define a variable. It is called data type. It specifies the data storage format for the variable.

Data type

Primitive User Defined Derived

Primitive data types in c are →

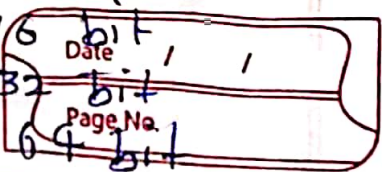
↓ Integer type → Integers are used to store whole numbers.

1 byte = 8 bit

2 byte = 16 bit

4 byte = 32 bit

8 byte = 64 bit



Size and range of integer type on 16 bit machine:

Type	Size (bytes)	Range	Format Specifier
int or signed int	2	-32768 to 32767	%d
unsigned int	2	0 to 65535	%u
short int or signed short int	1	-128 to 127	%hd
unsigned short int	1	0 to 255	%hu
long int or signed long int	4	-2147483648 to 2147483647	%ld
unsigned long int	4	0 to 4294967295	%lu

4. Void type :- Void type is usually used to specify the type of function which return nothing.

2) Floating point type: Floating type are used to store real numbers.

Size and range of Integer on type of 16 bit machine.

Type	Size (bytes)	Range	Format Specifier
float	4	$3.4E-38$ to $3.4E+38$	%f
double	8	$1.7E-308$ to $1.7E+308$	%lf
long double	10	$3.4E-4932$ to $1.1E+4932$	%Lf

Character type: Character type are used to store character value.

Size and range of Integer type in 16 bit machine.

Type	Size (bytes)	Range	Format Specifier
signed char	1	-128 to 127	%c
unsigned char	1	0 to 255	%c