**Data Types:**

**int:**

* It helps to store any integer value

e.g. int x;

* In 32 bit compiler int will take 4 bytes of memory
* Negative numbers are stored in 2’s compliment notation.
* Range: -2n-1 to 2n-1 – 1 [ n= number of bits ]
* Incase of 32 bit compiler range of int is -2147483648 to 2147483647
* By using modifiers range of integer can be increased
* Two modifiers are present:

1. unsigned
2. long

**float:**

* Used to define variables which can store real numbers.

e.g. float x;

* In 32 bit compiler float will take 4 bytes of memory
* Range: -3.4 X 1038  to 3.4 X 1038
* No modifiers are used for float

**double:**

* Used to define variables which can store real numbers and its range is more than float.

e.g. double x;

* In 32 bit compiler float will take 8 bytes of memory
* Range: -1.7 X 10308  to 1.7 X 10308
* Here only long is used as a modifier.

**char:**

* Used to define variables which can store characters.

e.g. char x;

* In 32 bit compiler float will take 1 byte of memory
* Range: - 2n to 2n-1
* Incase of 32 bit compiler range of char is -128 to 127
* Here only unsigned is used as a modifier.
* char x =’a’;
* This character a will be stored as an integer value in the memory that it’s corresponding value will get from ASCII codes.