Data types

To store anything in our system, we should have to allocate the memory [bytes]. This memory comes with 3 properties.

1. Type of data we want to store in that memory.
2. No of bytes required to store that value.
3. Value range.

Above 3 properties decided by the data type.

int sal=25000/- non decimal no

int / short int / signed int➔ -32768 to +32767 – 2 bytes - %d – conversion char / format specifier

unsigned int sal = 55000/-

unsigned ➔ 0 to 65535

long int sal = 350000/-

signed long int ➔ -2147483648 to +2147483647

unsigned long int ➔ 0 to 4294967295

c & c++ working in 16 bit compilers – 2 bytes ➔ 2^{16} ➔ 65536

java/py/.net ➔ 4 bytes ➔ 32 bit compilers ➔ 2^{32} ➔ 4294967296

12.50 ← decimal number

+50000Rs

-50000Rs

4 types of number systems

1. Binary system - %d
2.
3. Octal system - %o
4. Decimal system - %d
5. Hexadecimal system - %x