

## (Video 5) Basic Output Functions.

```
printf("Bablooshachi");
```

```
printf("%d", var);
```

```
printf("%d %d", var1, var2);
```

place holder for integer.

%d → decimal

## (Video 6) Fundamental Data Type - Integer

⇒ 2 byte = 16 bits

1 byte = 8 bit

⇒ 4 byte = 32 bits

sizeof operator shows size of data type.

```
printf("%d", sizeof(int));
```

→ 4 byte

32 bit

a. 2's complement  
a. 1's complement

**Range** → Upper and lower limit of some set of data

$$\{0, 1, 2, 3, 4\}$$

Decimal number system →

$$0 - 9$$

Range of **4 bit** data -  $\frac{0000}{0}$  to  $\frac{1111}{15}$   $\left(2^n - 1\right)$   
 $\downarrow$   
 max  
 15 is value

**2 byte** } Unsigned Range: 0 to 65535  $\left(2^{16} - 1\right)$   
**16 bit** } Signed Range: -32768 to +32767  
 $0000\ 0000\ 0000\ 0000$   
 $\frac{1111\ 1111\ 1111\ 1111}{\rightarrow 0 \rightarrow}$

**4 byte** } Unsigned Range: 0 to 4294967295 ✓  
**32 bit** } Signed Range: -2147483648 to  
 $+2147483647$   
 $0000\ 0000\ 0000\ 0000\ 0000\ 0000\ 0000\ 0000$   
 $\frac{1111\ 1111\ 1111\ 1111\ 1111\ 1111\ 1111\ 1111}{\rightarrow +0 \rightarrow}$