Number system conversion

Binary(BInary DigiT - BIT) base2 and decimal – base10 (0….9)

Octal(0….7) and hexadecimal(0….9.a…..f) total 16

A picture containing diagram

Description automatically generated

0b11001 – here 0b is to mention that it is binary number

Oct(25) will show the octal number

Hex(25) – this will show 0x… which means it is a hexadecimal, now try for hex(10) , what could be the answer?

0xf will give ?

Find the binary format of 32, 55,65

Swap two variables

A = 5

B = 6

A = b

B = a

Print(a)

Print(b)

This will give 6 6

Now we can swap with the help of third variable

Temp = a

A = b

B = temp

Print(a) – 6

Print(b) – 5

Here we are using another variable which is in in efficient and it still takes some memory.

A = a + b #11

B = a – b #5

A = a – b #6

Print(a)

Print(b)

Here with 11 we are wasting an extra bit so we will use ^ (XOR)

A picture containing text, light, gray

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A = a ^ b

B = a ^ b

A = a ^ b

XOR will not waste extra bits

Final one

A,b = b,a

Right side will solve first and it will go into stack and it will reverse (the value of a and b) rot\_two() which will swaps the two most top items.