# **Decimal Number System**

Base = 10

1 – 9

1000 - 1 = 10^3

100 - 2 = 10^2

10 - 3 = 10^1

1 - 4 = 10^0

1234 = 1\*1000 + 2\*100 + 3\*10 + 4\*1

1234 = 1\*10^3 + 2\*10^2 + 3\*10^1 + 4\*10^0

**Binary Number System**

Base = 2

32 = 2^5

16 = 2^4

8 = 2^3

4 = 2^2

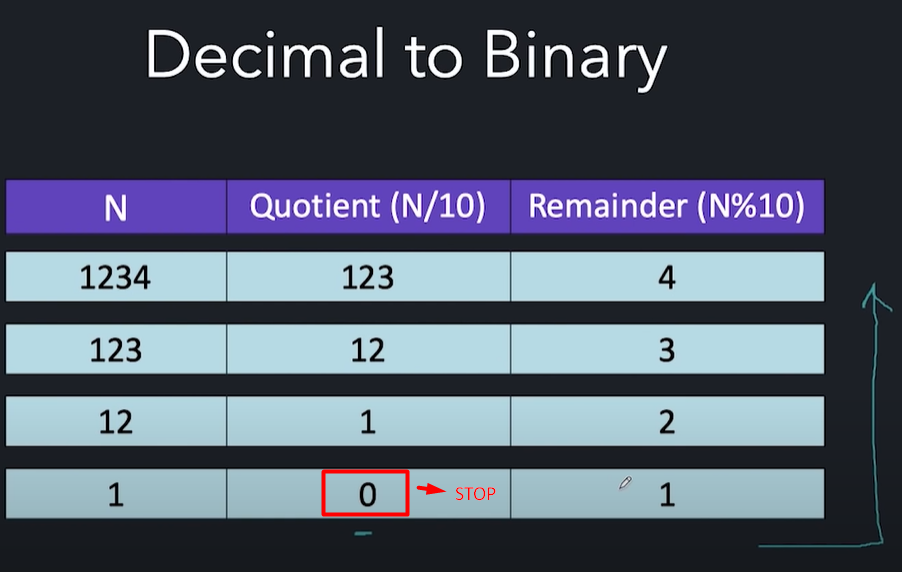
2 = 2^1

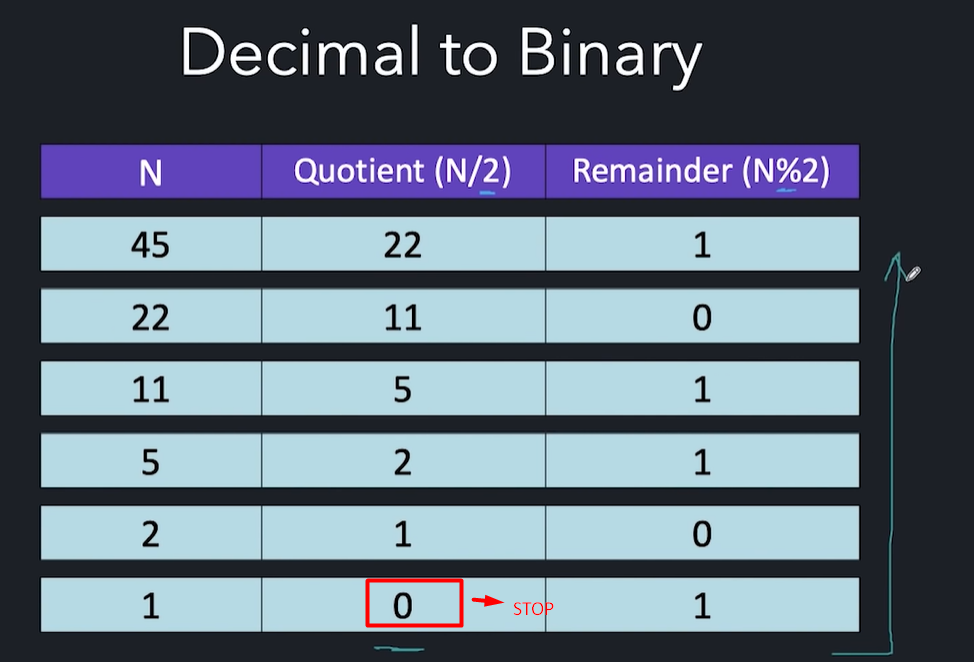
1 = 2^0

45 = 1\*32 + 0\*16 + 1\*8 + 1\*4 + 0\*2 + 1\*1

45 = 1\*2^5 + 0\*2^4 + 1\*2^3 + 1\*2^2 + 0\*2^1 + 1\*2^0

# **Decimal to Binary**





# **Binary to Decimal**

