

In [4]: *#Name: Mohith Dande*

The decimal number 42 in 8-bit binary number representation is 00101010.

For -42, the 8-bit two's complement representation is used, which gives 11010110.

The decimal number 42 in 8-bit binary number representation is 00101010.

This is obtained by converting the decimal number to binary format using the repeated division method or by mapping each decimal number to its binary equivalent.

For a negative number like -42, the two's complement representation is used in 8-bit binary format.

To find the 8-bit two's complement of -42, you first find the binary representation of 42 in 8 bits, which is 00101010.

You then flip all the bits (so 0s become 1s and 1s become 0s) to get 11010101.

Finally, add 1 to the least significant bit to get 11010110, which is the 8-bit two's complement of -42.

In [1]: