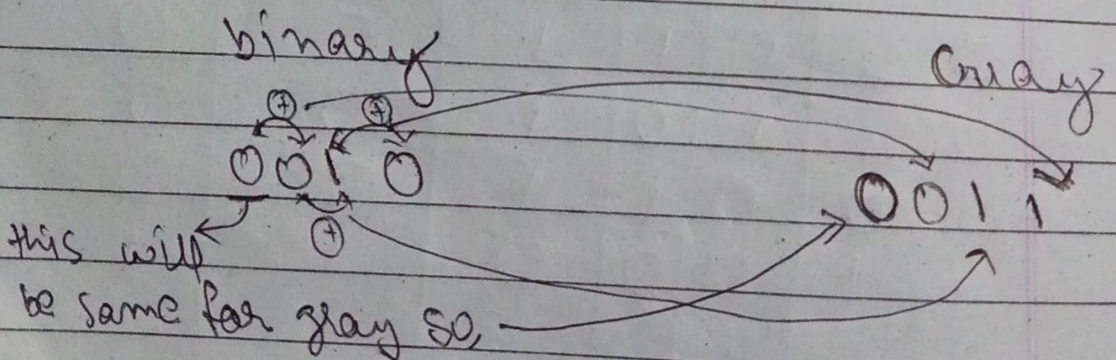


## → Gray code :-

binary to gray conversion :-

- we take binary numbers in 4 bit form
- first binary digit from left is same.
- now for next gray code bit we find ~~xxxx~~ do xor operation b/w current binary bit and previous binary bit.

ex. -



binarygray

0 →	0000	0000
1 →	0001	0001
2 →	0010	0011
3 →	0011	0010
4 →	0100	0110
5 →	0101	0111
6 →	0110	0101
7 →	0111	0100
8 →	1000	1100

For any binary number we follow same rule -

11001001 convert to gray code.  
 → 11001001 → 10101101

Gray code is called unidistance code as for 2 adjacent/continuous decimal numbers, Gray code only changes by one bit -



## Gray to binary conversion -

• First bit of gray code is same for first binary code ~~now~~ bit.

• now for current binary bit we find XOR of current gray bit and previous binary bit.

Ex: -

Gray -	1	0	1	0	1	1	0	1
Binary -	1	1	0	0	1	0	0	1

