ASSIGNMENT 2

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1's Complement and 2's Complement

1's Complement

The one's complement of a binary number is found by changing all 0's to 1's and all 1's to 0's.

Ex:- i) 01101101001

It's 1's complement is 10010010110

ii) 11100010

1's complement is 00011101

iii) 00011100 1

1's complement is 11100011 0

2's Complement: The 2's complement of a binary number is found by first taking the 1's complement and then adding '1' to the result.

Ex: i) 00011010

St 1: Find 1's complement

= 11100101

St 2:

Adding 1

```
  11100101
         1
  --------
  11100110
```

St 3:

11100110 it is 2's complement.

ii) 11011000.

St 1: find its 1's complement

= 00100111

St 2: Adding 1

```
  00100111
         1
  --------
  00101000
```

St 3:

00101000 it is 2's complement.