```
In [4]: #Name: Mohith Dande
Step-by-step:
1. Convert +42 to binary (positive number)
42 in binary (base 2) = 00101010
(This is 8 bits, with leading zeros)

2. Invert the bits (flip 0s to 1s, and 1s to 0s)
Invert 00101010 → 11010101

3. Add 1 to the inverted binary
11010101 + 1 = 11010110

Final Answer:
The 8-bit 2's complement of -42 is: 11010110
```

In [1]: