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**Reverse Bits**

**Code:**

```cpp
class Solution {
public:
    uint32_t reverseBits(uint32_t n) {
        uint32_t result = 0;
        // Iterate over each bit in n (32 bits)
        for (int i = 0; i < 32; i++) {
            result <<= 1;                // Shift result to the left to make room for the next bit
            result |= (n & 1);           // Add the least significant bit of n to result
            n >>= 1;                     // Shift n to the right to process the next bit
        }
        return result;
    }
};
```

**Output:**