Even Number Check

if (value % 2 == 0)
    return value == 2;

- This piece of code checks if value is an even number. Let's explain the process step by step:

1. if (value % 2 == 0)

The expression "value % 2 == 0" checks if the residual of val divided by 2 is 0.
- If value is an even number, this expression is true and enters the if block.
- If value is an odd number, this expression is false and does not enter the if block, the function continues to run.

2. If the value is even:

return value == 2;

This line checks if value is equal to 2.
- If value is equal to 2, the function returns true (1) because 2 is a prime number.
- If the value is not equal to 2 **(an even number but not 2)**, the function returns false (0) because all even numbers except 2 are not prime.
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This check is done to quickly eliminate even numbers. Prime numbers, except 2, are odd numbers. Therefore, checking for even numbers immediately increases the efficiency of the algorithm.

for "value = 4" :

4 % 2 == 0 returns true.
The expression return 4 == 2; returns false (because 4 is not prime).

For value = 2:

2 % 2 == 0 will be true.
The expression return 2 == 2; returns true (because 2 is prime).

For value = 7:

7 % 2 == 0 returns false.
It does not enter the if block and subsequent checks continue.