Experiment 10

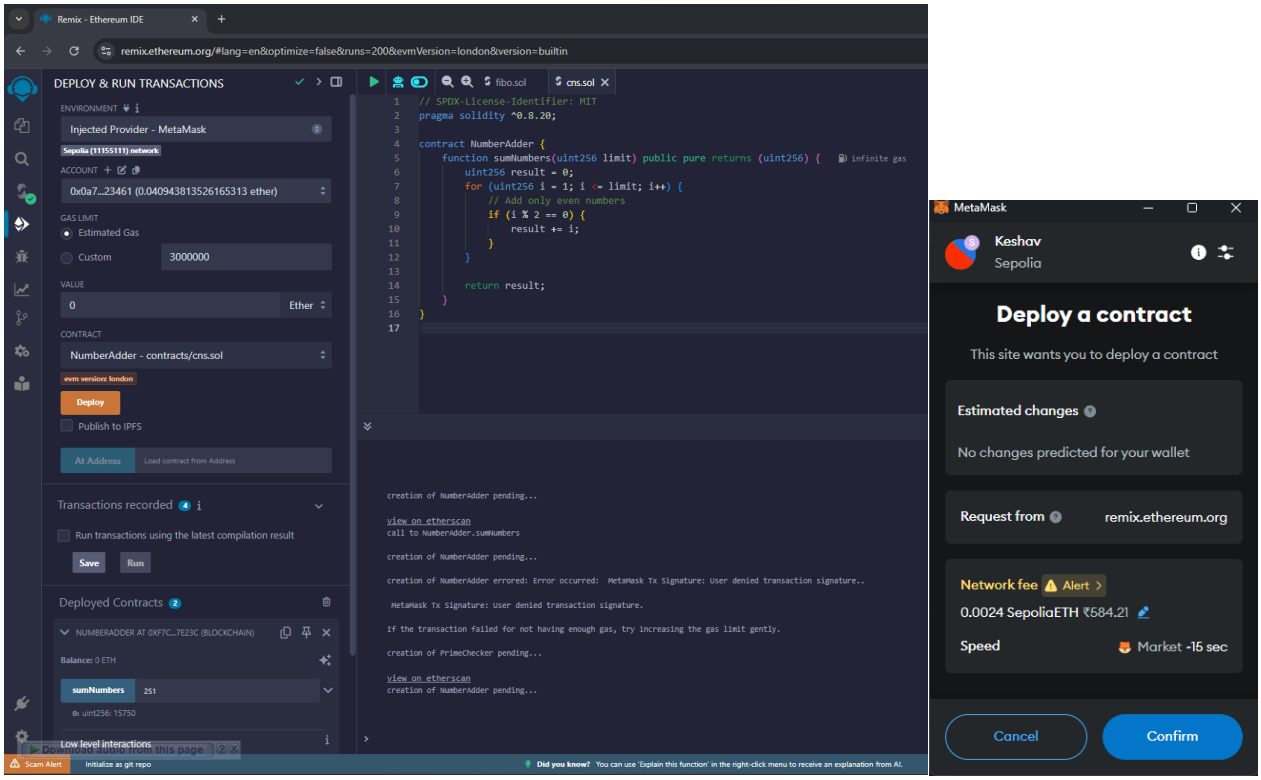
Aim: Deployment of smart contracts in public blockchain fields.

1. Write Smart contract for Ether Transaction and deploy it Meta Mask environment.
Code: Sum of all even numbers

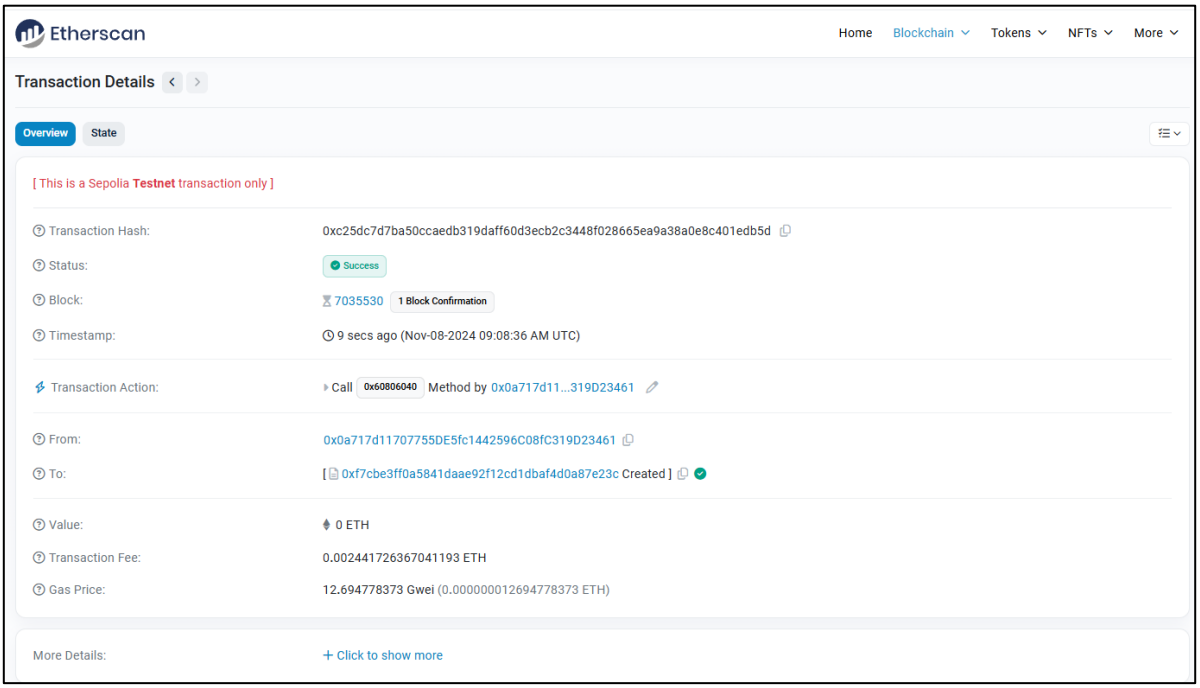
```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.20;

contract NumberAdder {
    function sumNumbers(uint256 limit) public pure returns (uint256) {
        uint256 result = 0;
        for (uint256 i = 1; i <= limit; i++) {
            // Add only even numbers
            if (i % 2 == 0) {
                result += i;
            }
        }

        return result;
    }
}
```



Detailed Receipt



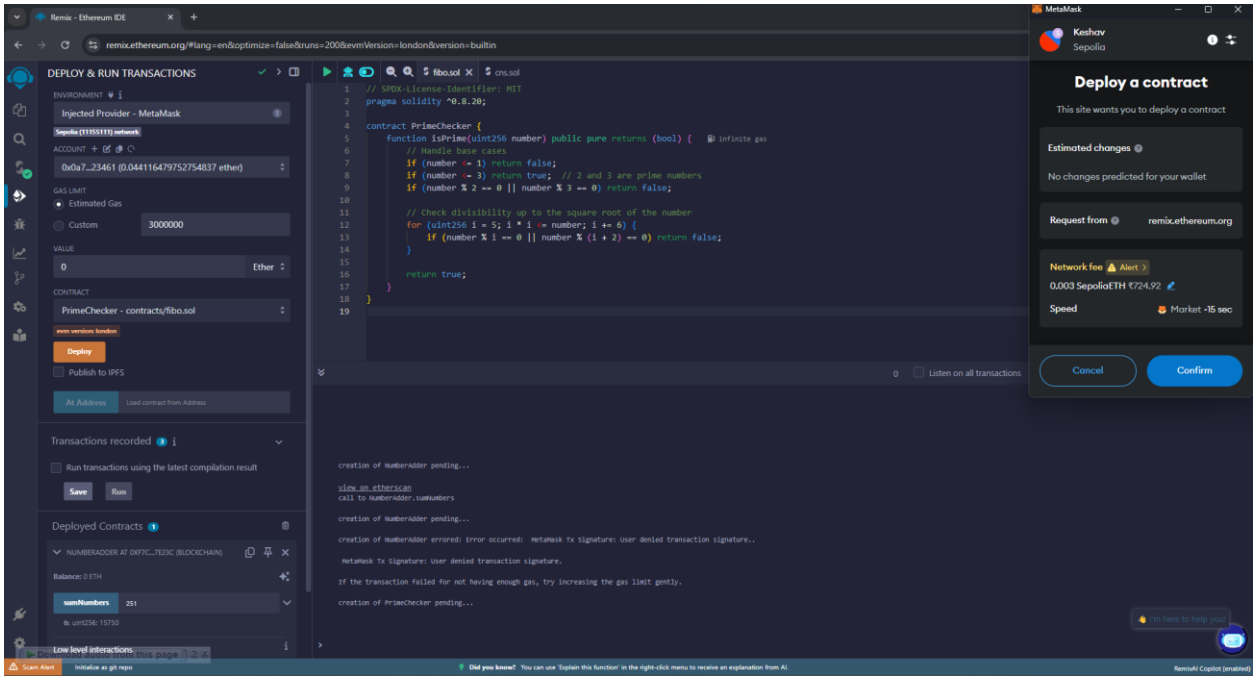
Code: PrimeNumber Checker

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.20;

contract PrimeChecker {
    function isPrime(uint256 number) public pure returns (bool) {
        // Handle base cases
        if (number <= 1) return false;
        if (number <= 3) return true;  // 2 and 3 are prime numbers
        if (number % 2 == 0 || number % 3 == 0) return false;

        // Check divisibility up to the square root of the number
        for (uint256 i = 5; i * i <= number; i += 6) {
            if (number % i == 0 || number % (i + 2) == 0) return false;
        }

        return true;
    }
}
```



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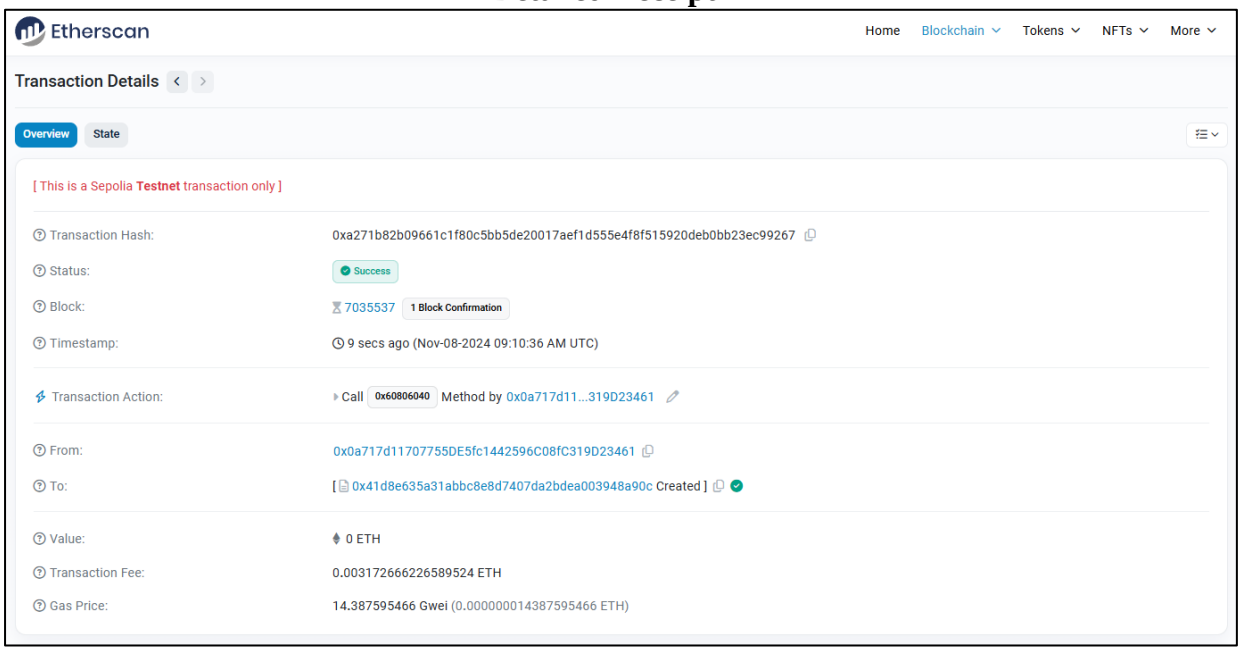

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