## What is Nested Mapping?

A **nested mapping** means a mapping *inside another mapping*

**Simple Example: Student Marks**

We will store **each student's marks** for **each subject** using nested mapping.

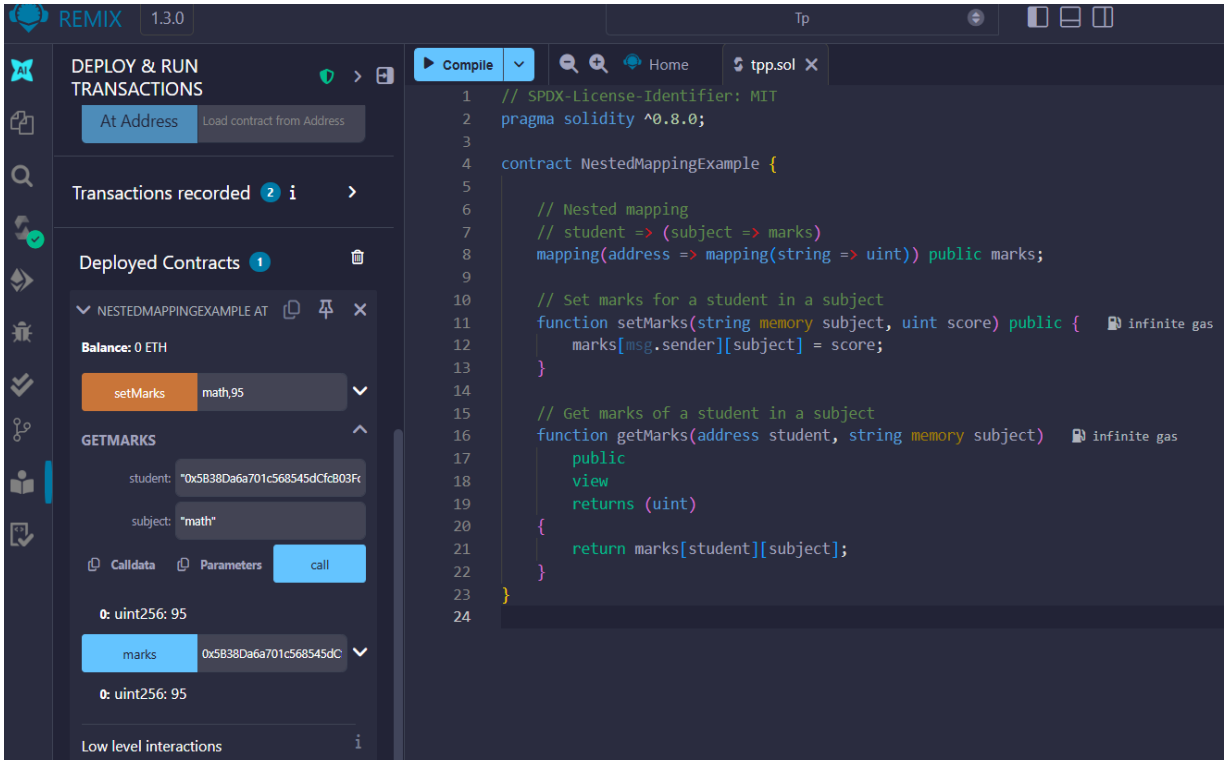
```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

contract NestedMappingExample {

    // Nested mapping
    // student => (subject => marks)
    mapping(address => mapping(string => uint)) public marks;

    // Set marks for a student in a subject
    function setMarks(string memory subject, uint score) public {
        marks[msg.sender][subject] = score;
    }

    // Get marks of a student in a subject
    function getMarks(address student, string memory subject)
        public
        view
        returns (uint)
    {
        return marks[student][subject];
    }
}
```


REMIX 1.3.0
Tp
DEPLOY & RUN TRANSACTIONS
At Address
Load contract from Address
Transactions recorded 2
Deployed Contracts 1
NESTEDMAPPINGEXAMPLE AT
Balance: 0 ETH
setMarks
math,95
GETMARKS
student:
"0x5B38Da6a701c568545dCfcB03Fc
subject:
"math"
Calldata
Parameters
call
0: uint256: 95
marks
0x5B38Da6a701c568545dC
0: uint256: 95
Low level interactions
Compile
Home
tpp.sol
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;
contract NestedMappingExample {
// Nested mapping
// student => (subject => marks)
mapping(address => mapping(string => uint)) public marks;
// Set marks for a student in a subject
function setMarks(string memory subject, uint score) public {
infinite gas
marks[msg.sender][subject] = score;
}
// Get marks of a student in a subject
function getMarks(address student, string memory subject)
infinite gas
public
view
returns (uint)
{
return marks[student][subject];
}
}