

Practical 3

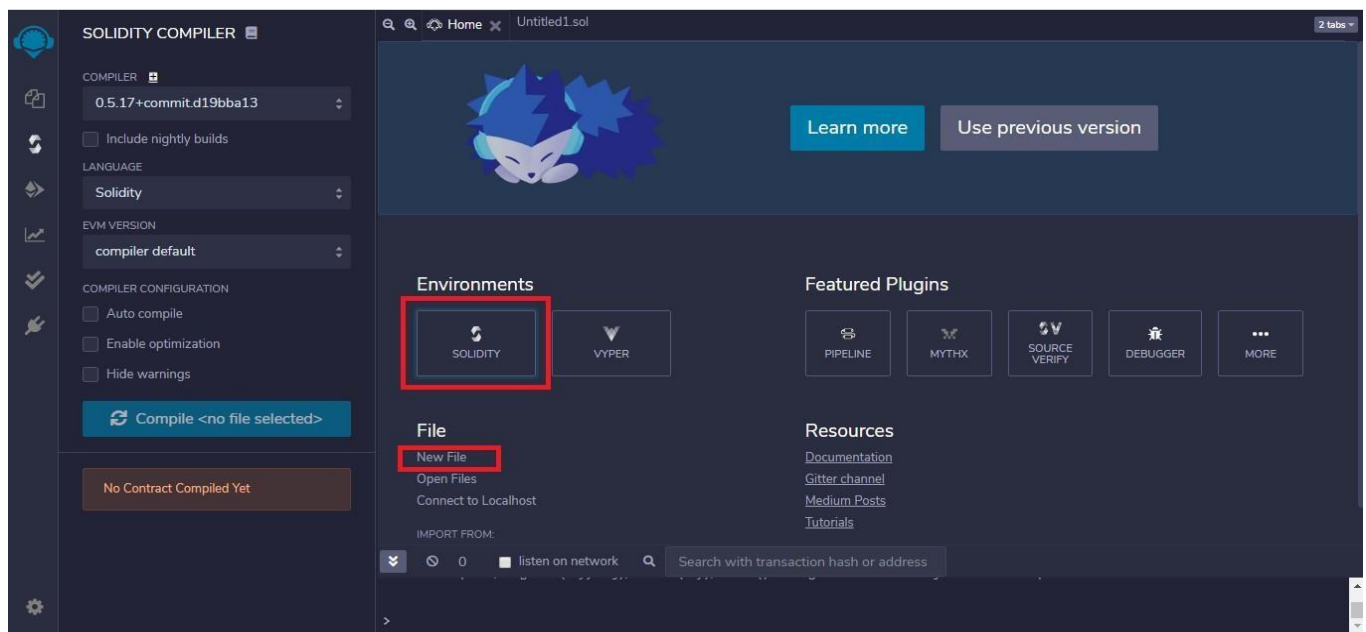
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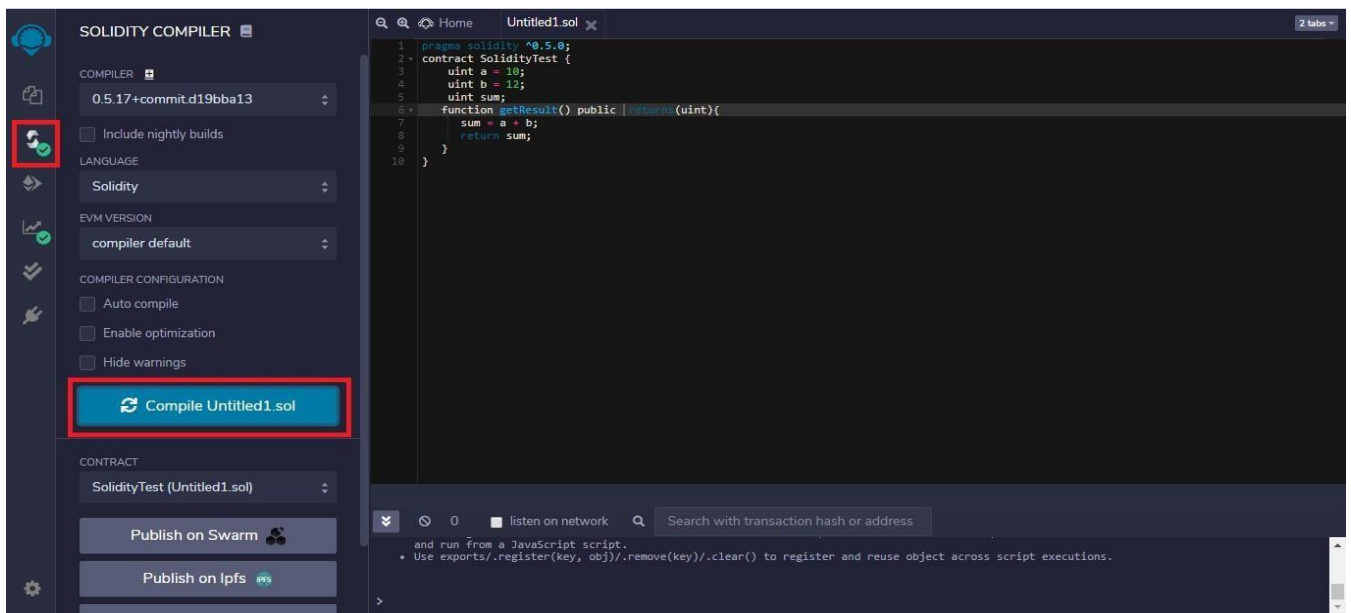
Subject : Blockchain Technology

- **Steps for the compilation, execution, and debugging of the smart contract in Remix IDE.**

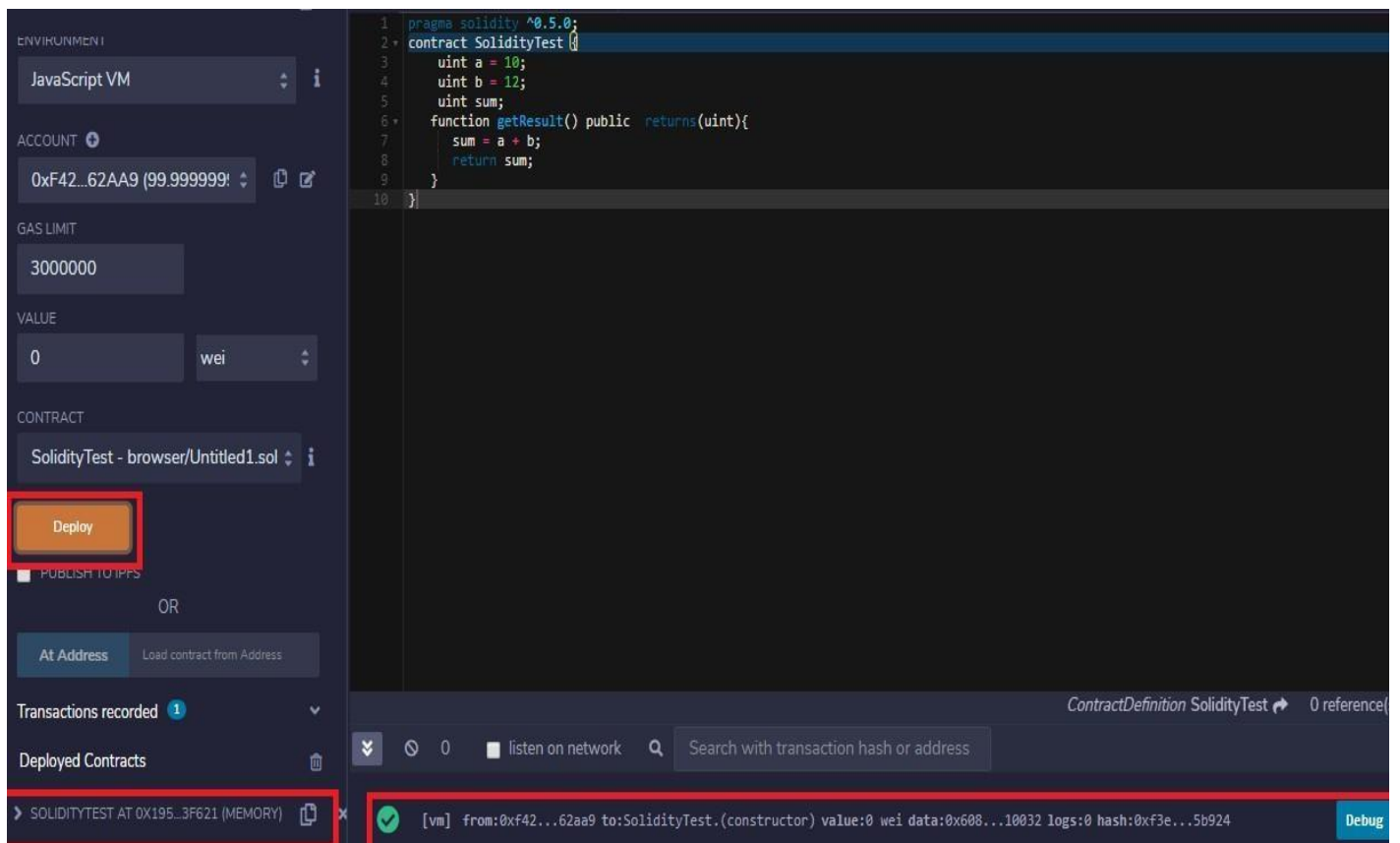
Step 1: Open Remix IDE on any of your browsers, select on the *New File* and click



Step 2: Write the Smart contract in the code section, and click the *Compile* button under the Compiler window to compile the contract.



Step 3: To execute the code, click on the *Deploy* button under Deploy and Run Transactions window.



contracts to run the program, and for output, check to click on the drop- down on the console.

The screenshot displays the Remix IDE interface. On the left, the 'DEPLOY & RUN TRANSACTIONS' sidebar is visible. The 'VALUE' field is set to '0' and the unit is 'wei'. The 'CONTRACT' dropdown shows 'SolidityTest - browser/Untitled1.sol'. The 'Deploy' button is highlighted. Below it, the 'PUBLISH TO IPFS' checkbox is unchecked. The 'At Address' button is also visible. The 'Transactions recorded' section shows 3 transactions. The 'Deployed Contracts' section shows 'SOLIDITYTEST AT 0x195...3f621 (MEMORY)'. The 'getResult' button is highlighted with a red box. The 'Low level interactions' section shows the 'CALLDATA' field and a 'Transact' button. The main editor shows the Solidity code for 'SolidityTest' with a 'getResult' function. The console at the bottom shows the execution results, with the 'decoded output' field highlighted by a red box, displaying '0: "uint256: 22"'. The console also shows the 'hash', 'input', and 'logs' fields.

Step 5: For debugging click on the *Debug* button corresponding to the method call in the console. Here you can check each function call and variable assignments.

This screenshot is identical to the one above, showing the same Remix IDE interface with the 'SolidityTest' contract deployed and the 'getResult' function executed. The 'decoded output' in the console is highlighted with a red box, showing '0: "uint256: 22"'. The sidebar and main editor also show the same state as the previous image.