1. Open your web browser and navigate to the Remix IDE website: <https://remix.ethereum.org/>.
2. Once on the Remix IDE website, you will see a split-screen interface. The left side contains the file explorer and code editor, while the right side displays the compiler output, deploy and run tabs, and other panels.
3. Click on the "+" button next to the "File Explorer" title on the left side to create a new file. Give the file a meaningful name with the **.sol** extension, e.g., **MyContract.sol**. You may also upload files into the browser.
4. You can your newly created file in the code editor on the left side of the screen.
5. You can start writing your Solidity smart contract code in the code editor. You can refer to the Solidity documentation( <https://docs.soliditylang.org/en/v0.8.20/> ) for syntax and language features. For example, you can define contract structures, functions, variables, and more.
6. Remix provides syntax highlighting and autocompletion to help you write code more efficiently.
7. Once written, you can compile it by switching to the "Solidity Compiler" tab on the right side of the screen. Remix automatically compiles your contract when you switch to the compiler tab.
8. In the compiler tab, you can select the compiler version you want to use. Choose a version that matches the pragma statement at the beginning of your contract code.
9. Click the "Compile" button to compile your contract. If there are no errors, you will see the compiled contract artifacts in the "Compiled Contracts" section below.
10. After compiling, you can deploy and interact with your contract. Switch to the "Deploy & Run Transactions" tab on the right side of the screen.
11. In the "Deploy & Run Transactions" tab, you will see a dropdown menu that lists all your compiled contracts. Select the contract you want to deploy from the dropdown.
12. Below the contract selection, you will find the deploy button. Click on the "Deploy" button to deploy your contract to the Ethereum network. Remix will prompt you to confirm the deployment.
13. Once the contract is deployed, you can interact with its functions by expanding the deployed contract in the panel below. It will display all the functions and their input fields.
14. Fill in the required input fields for the function you want to interact with and click on the respective function button to execute the transaction.
15. The right panel will display the transaction details, including the gas cost, transaction hash, and any emitted events or output values.
16. You can also monitor the transaction status in the Remix "Transactions" tab, which provides a history of all your interactions.