Practical Approach to Blockchain using Node.js - JavaScript

Pre-requisites

- Visual Studio Code (https://code.visualstudio.com/download)
- Node.js (https://nodejs.org/en/download/)

Steps Involved

1. After installing visual studio code and Node.js, create a folder at desired location in your workstation.
2. Open Visual Studio Code, click on “File” in menu bar, click on “Add folder to workspace”, choose the folder the that you created in Step 1 and click on “Add” button.
3. You will see your folder in Explorer part of VS Code.
4. Just to check whether VS code and Node.js is working or not, we will run a JS file for printing hello world. For that, right click on the folder that you have created, click on “New File”, give the name of the with .js extension. For example, “first.js”.

   Write the following code in this js file that you created.

   var message = 'hello world';
   console.log(message);

   To run this code, click on “Terminal” in menu bar, click on “New Terminal”, you will see the small terminal window below the code. In the terminal, write the following command to run the file.

   node first.js

   If you see the output “hello world”, then installation is successful and your code is working fine.

5. Since, we are working with blockchain, we need to add a package for performing cryptographic operations such as SHA256. To install the package, in the terminal, write the following command.

   npm install --save crypto-js

   After the package gets successfully installed, you will see a folder “node_modules” under the folder name that you added to workspace. If you click on “node_modules” folder, you will see several files for encryption and decryption, out of which one will be ***“crypto-js.js”***, which will be used in the subsequent codes.
6. Restart your Visual Studio Code once after performing the above tasks.