**Blockchain PoW**

**Questions (assuming you have node.js installed and downloaded the necessary files from PoW folder).**

Answer the following questions and provide screenshots where appropriate.

1. Describe each method of the “Proof of work” project files inside PoW folder.
2. Why the previous hash is zero in the genesis block? Hint: look into addBlock method of Blockchain.js file.
3. Before you run the project, run “npm i” in your project folder; run “npm install js-sha256 –save”. This will add dependency and create a 256 hash. Does your json.package file show any dependency now?
4. What does the first line of Blockchain.js file do?
5. Run the project with command “node app.js”. How long did it take to run? Do you see why miners need to be rewarded to find specific key?
6. Reduce/increase number of zeros to 5 zeros, i.e., look for key that starts with 5 zeros. Hint: change in the generateHash method. In real world for instance, Bitcoin miners may look for >50 zeros starting hash. How long it took to run this time? Write down the nonce numbers.
7. Explain what you learnt out of this project.