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% 35 Presentations (please send via email if you didn't)

% 45 Final Exam

% 10 IBM Certificate (please send your certificate link)

% 5 Attendance

% 15 Extra Points

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% 110

#### Final Exam Topics

1. Hash functions
2. Nakamoto Consensus
3. Byzantine Generals
4. Bitcoin white-paper (<https://bitcoin.org/bitcoin.pdf>)
5. Transaction Flow (Bitcoin, Ethereum)
6. NodeJS code completion (<https://github.com/sukrucakmak/blockchain-labs>)
7. Hyperledger Key Concepts  
([https://hyperledger-fabric.readthedocs.io/en/release-1.4/key\\_concepts.html](https://hyperledger-fabric.readthedocs.io/en/release-1.4/key_concepts.html))
8. Docker and commands (<https://www.sukrucakmak.com/docker-cheat-sheet/>)