

CCST 9080 Semester 2, 2024-25
Tutorial 1 (10/11 Feb, 2025)

1. Grouping (5 min)

Divide yourselves into smaller group (about 3 per group)

2. Discussion on one of the following statements (20 min)

- (a) TA will give each sub-group a specific statement/question for discussion
- (b) Group members try to discuss among themselves whether the statement is correct or how to answer the question with supporting evidence (and/or with knowledge learned from Lecture 2)
- (c) Select a representative to present the findings

3. Presentation by each group (20 min)

Each group will present their findings based on the question given by the TA

4. TA comments on the findings (5 min)

Note that TA will observe how your group conducts the discussion and give individual mark to each student.

[Confidential to TAs, do NOT release this to the students before the tutorial]

The following are some sample statements you can ask students to discuss among themselves.

Try to give different statements to different sub-groups of the same tutorial group. It is of no problem if you reuse some of the statements in different tutorial groups.

Please well-prepare before you go to the tutorials, probably you need to think about some model answers for each statement according to my lecture slides. Thank you very much.

*** Remember to mark down individual marks for students in the Excel file (and sort by UNos) ***

Some sample statements for discussion:

1. If A deposits 10 Bitcoins to B and B sees that the transaction is being appended as the last block in the blockchain, B can be sure that the transaction has been confirmed by the blockchain system.
2. People always say that blockchain is immutable. The main reason is that blockchain has used public key and private key concept to make sure that the bitcoins owned by a user can only be spent by the real owner.
3. The major reason why we want to go for decentralization is because we can base on decentralization to avoid being tracked for criminal activities such as money laundry.
4. Provide reasons for going for decentralization.
5. Are all existing blockchain platforms purely decentralized?
6. Are all existing cryptocurrency exchanges purely decentralized?
7. List the differences between a digital signature and a hash value.
8. The transaction rate is low in the original design of the blockchain because the designer does not want to give out too many bitcoins as rewards for miners.
9. Can you explain how "Proof of Work" works?
10. Explain why the miners should trust the "longest" chain to be the correct blockchain to follow (with all valid transactions)
11. Is it possible to have two different documents to have same hash values?
12. Any regulations in HK for ICO?
13. Why mainland China banned ICO and cryptocurrency trading?
14. How many cryptocurrencies exist in the world now and why the prices of cryptocurrencies fluctuate so much?
15. How blockchain platform is different from a database platform?

You can also try to come up others that you think appropriate.