

CCST 9080 Semester 2, 2024-25
Tutorial 7 (31 March/1 April, 2025)

1. TA Introduction and grouping (5 min)

TA will give a short introduction and divide students into smaller groups (about 3 per group)

2. Discussion on aspects related to FinCrime (e.g. Bitcoin & Blockchain, Crypto Crimes, and Countermeasures) (20 min)

Each sub-group can select **two or three** following topics related to the fourth guest lecture (FinCrime). Group members try to discuss among themselves and prepare a five-minute presentation. Students can draw on the whiteboard during the discussion if necessary.

- 1. What is ransomware? What ransomware occurred in 2017?
- 2. Why is it hard to track the source of the ransomware?
- 3. Why are people whose data is encrypted by ransomware increasingly more inclined to pay a third-party entity for decryption rather than paying the address displayed in the ransomware window?
- 4. What is a darknet? Please talk about the concept in the two aspects provided by the guest speaker: search engines and special accessing browsers like Tor Browser.
- 5. What did Jimmy Zhong do that was illegal? Why was his crime discovered? Please answer the questions on the aspects of the bitcoin and its technological features.
- 6. If you were a crime in Bitcoin, how should you hide yourselves? Based on this, try to answer how to detect fraud according to the fourth guest lecture.
- 7. Can backups help prevent ransomware? Try to compare the hot backup and the offline backup.
- 8. Talk about how block-by-block hard disk writing technology can help computer systems restore from ransomware?
- 9. Do you think it is necessary for personal computers to use the ransomware-resisted data management plan used in governments? Why?
- 10. What the government can do to enforce the laws and regulations to prevent high-technology FinTech crimes like crypto crimes?
- 11. (Topic presented by Dr. Ka-Ho) How to handle the mix-coin issue? Or, how to distinguish criminals from law-abiding citizens?
- 12. (Topic presented by Dr. Ka-Ho) We must use multiple pieces of evidence from multiple sources to prove a person's innocence or guilt. Why?
- 13. Try to compare the traditional currency and the world currency.
- 14. Try to propose some methods to detect whether a file is encrypted by ransomware while keeping the file confidential. For example, the government often need technical persons to protect their secret computer systems with not knowing the content of the files stored.
- 15. Try to systematically summarize the cases presented by Dr. Ka-Ho.

Disclaimer: Some tutorial topics above may include inappropriate content, but it is not intended to teach you how to be a smarter criminal. It is to help you recognize and prevent financial crimes.

3. Presentation by each group (20 min)

Each group will present their answers to the chosen questions.

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]

TAs can also freely pick any related topics.