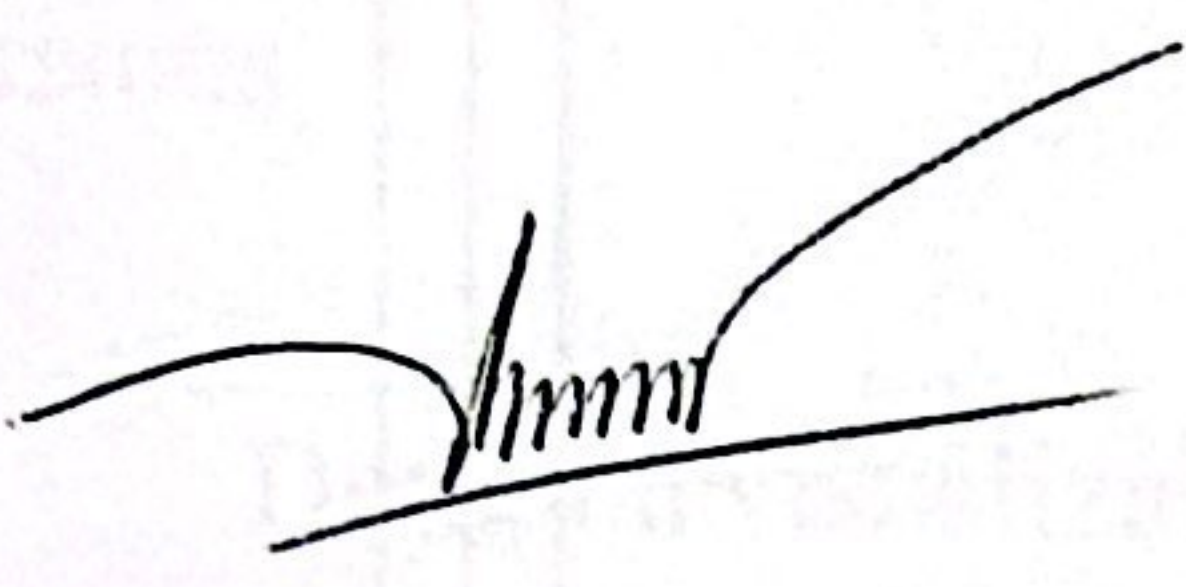
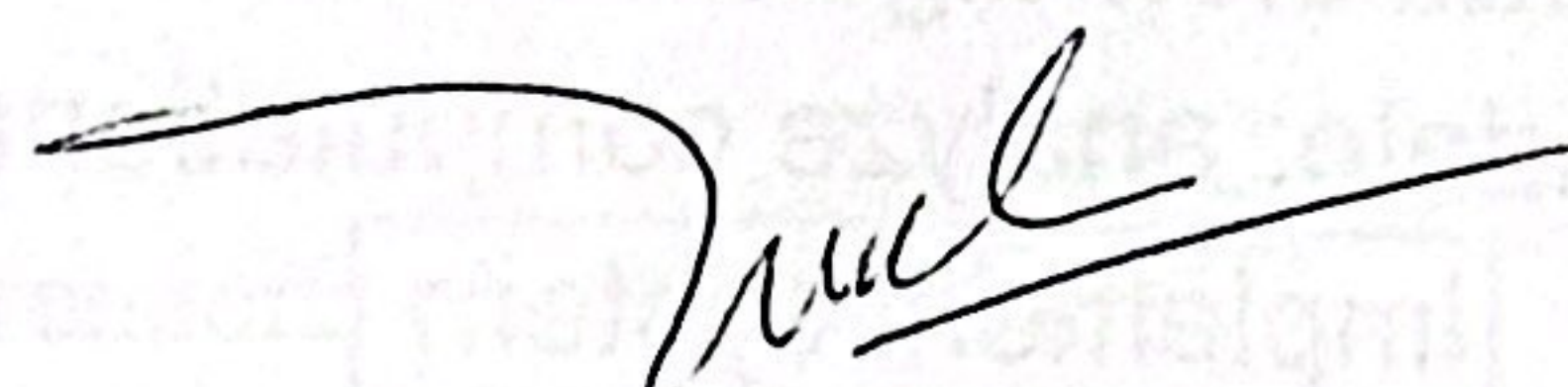


Final Examination

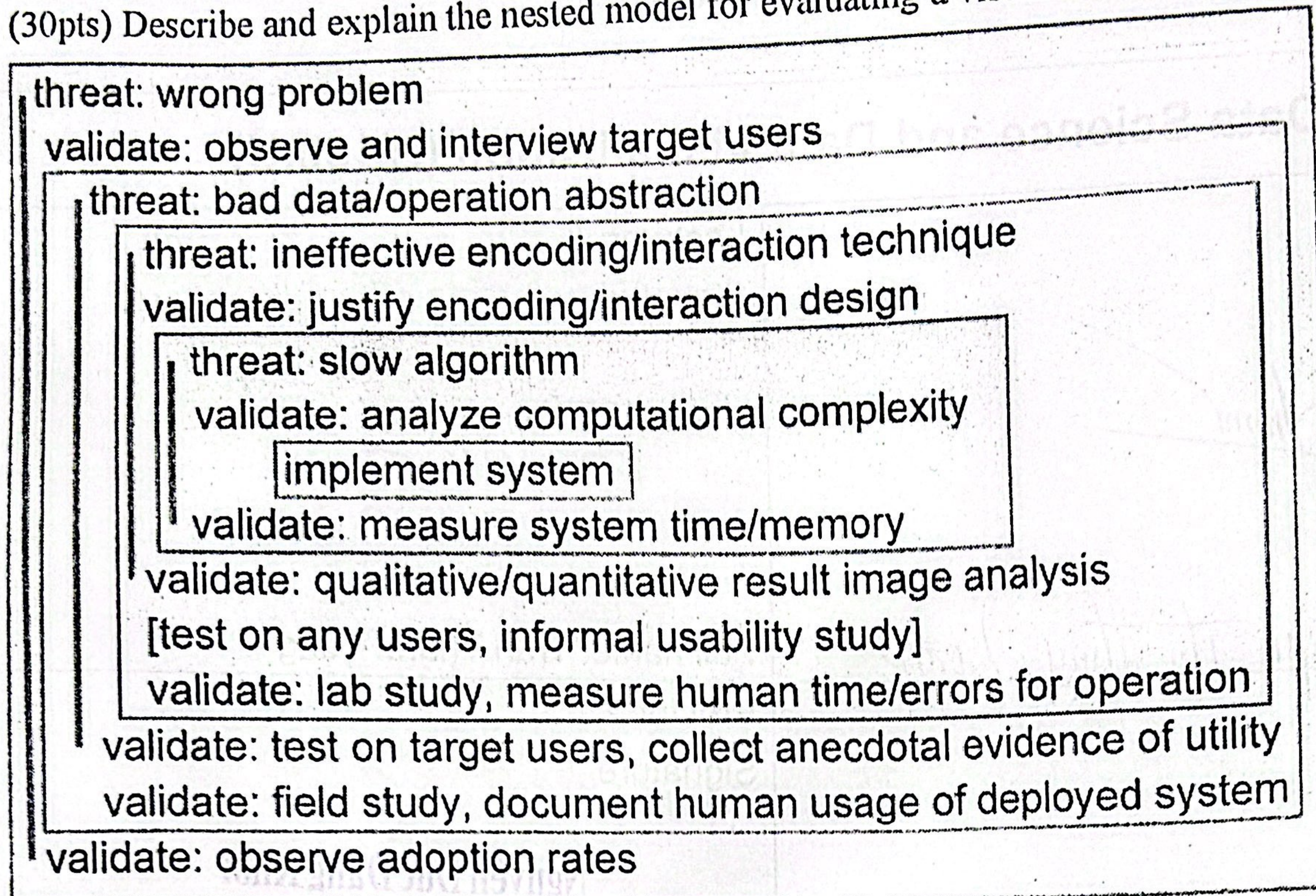
Date: 16/06/2023; Duration: 2 hours
Open-book

SUBJECT: Data Science and Data Visualization (IT138IU)	
Approval Signature 	Lecturer: Signature 
Full name: <u>Nguyen Thi Thuy Loan</u>	Full name: <u>Trần Thanh Tùng</u>
Proctor 1 Signature	Proctor 2 Signature Nguyễn Đức Đăng Khôi
Full name:	Full name:
STUDENT INFO	
Student name: <u>NGUYEN QUYNH DIEM</u>	
Student ID: <u>ITDSIU20031</u>	

INSTRUCTIONS: the total point is 100 (equivalent to 40% of the course)

- 1. Purpose:
 - Test your knowledge of data science and data visualization in the following topics:
 - visualization: storytelling, design and evaluate a visualization.
 - Examine your skill in
 - Analyzing and designing visualization
- 2. Requirement:
 - Write the answers and draw models CLEAN and TIDY.

1. (30pts) Describe and explain the nested model for evaluating a visualization artifact.



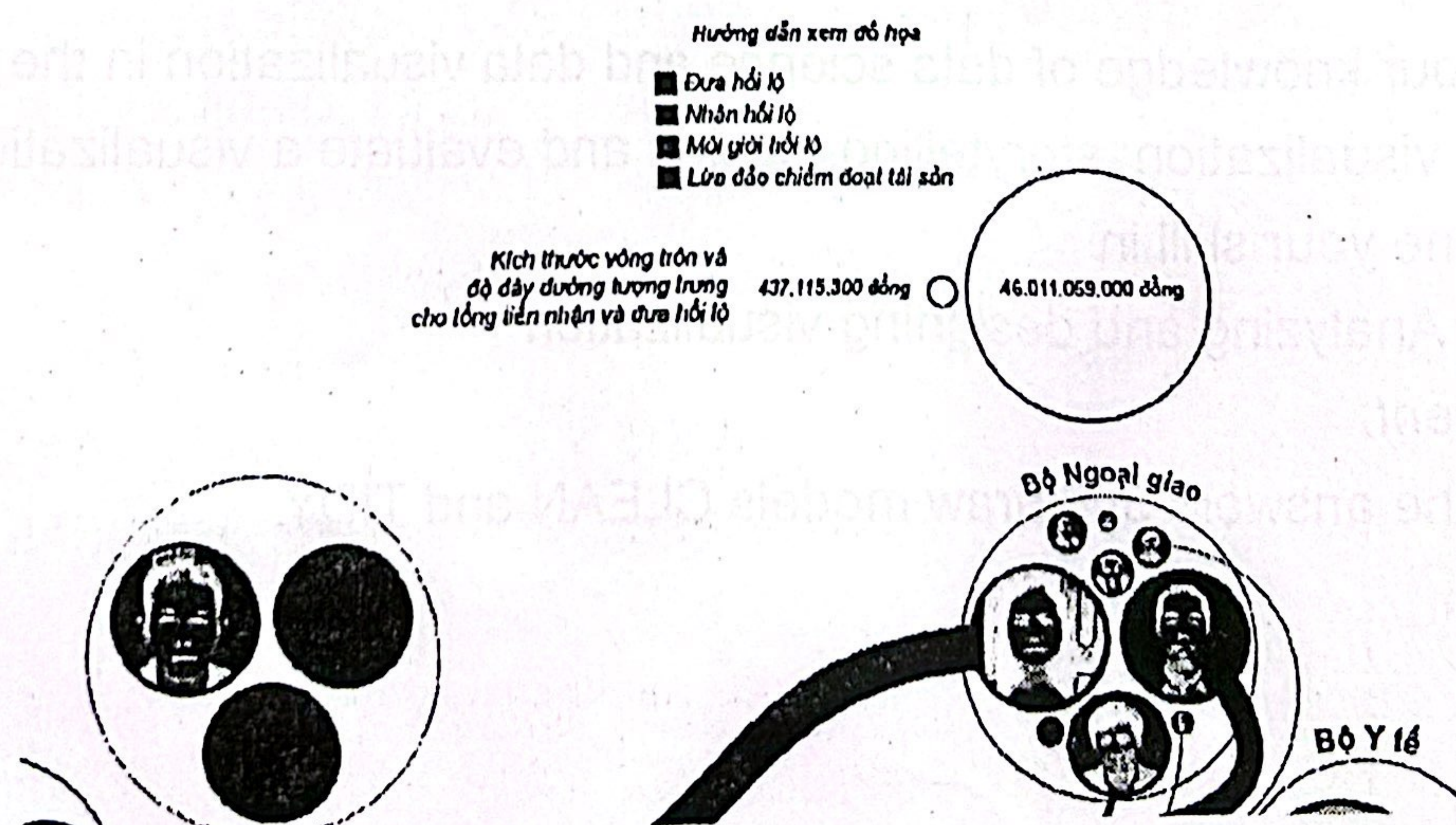
2. (40pts) Evaluate an interactive visualization.

Consider the following article,

<https://vnexpress.net/dong-tien-hoi-lo-chuyen-bay-giai-cuu-4594645.html>

- Which storytelling genre is used in the article? (5 marks)
- What are the goals of the use of charts and interactive charts? What could be the problem if there are no charts in the article. (10 marks)
- Analyze the chart “Đường dây nhận hồi lộ từ các doanh nghiệp đến 21 bị can ở 5 Bộ, VPCP và 2 địa phương”

Đường dây nhận hồi lộ từ các doanh nghiệp đến 21 bị can ở 5 Bộ, VPCP và 2 địa phương
Click để xem chi tiết



- o What is input data? (5 marks)
- o Which marks and channels are used to visualize the data? (10 marks)
- o What is the goal of the chart in terms of task abstraction in visualization? (10 marks)

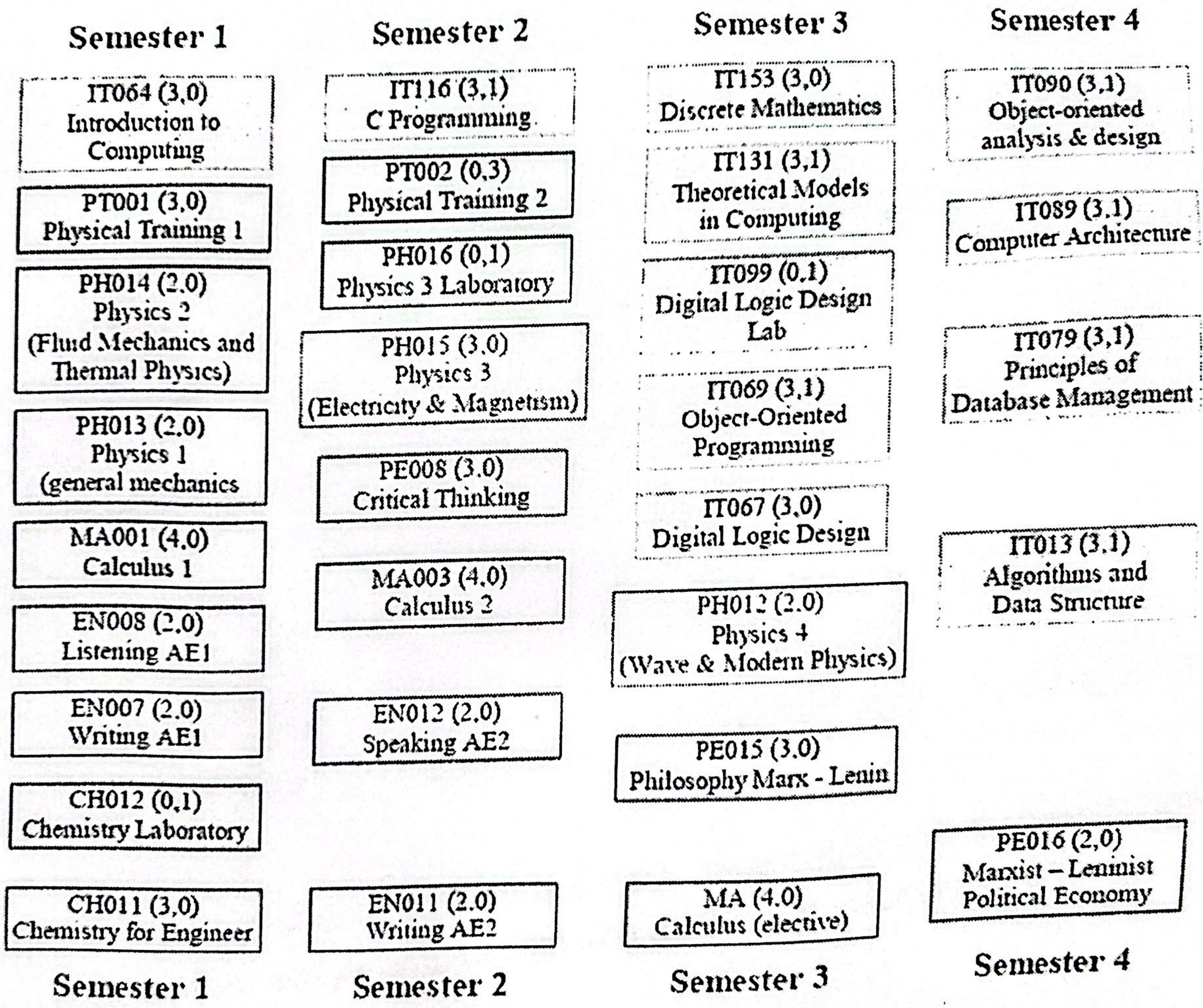
3. (30pts) Design a visualization

In a university, the curriculum of a program is updated each year such as

- Add new courses
- Remove existing courses
- Move a course from one semester to another
- Add a new connection between two courses
- Remove an existing connection between two courses

The update is to adopt new knowledge and technology, but people need to track the differences between versions.

Design a visualization to compare two versions of a curriculum.



-- The end --