InfiniTraq's primary product is to detect and track person in shops, malls and factories.

Your task is to build a primary model for this.

1. Use any Yolo model to detect person.

2. Use any tracking model to track person and assign id for each person (byte-track or botsort)

* you can use the tracking model from ultralytics

3. Perform Reid - use any person reid model (os_net) to get embedding of the person.

4. Store Reid embeddings to a vector DB like faiss

5. Compare the Reid to reassign Id for each person

Attached is a sample video to perform the test.

Submit a fully functional code in jupyter-notbook or python file along with the labelled video

The goal of this assignment is to test your coding ability. In case you use any AI engine to generate the code - make sure to understand the code and the code is fully functional.