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Topic: Intelligent Learning Platform

The current learning platforms such as Coursera have provided a great opportunity for people to study remotely. However, it lacks intelligence for people to study efficiently. For instance, Coursera does not have the function for people to search for the specific contents of videos that people are looking for. We usually need to spend so much time finding the related information and material throughout every week of the course. Sometimes, We may not be able to find significant concepts because the topic may be discussed in some particular week that might be helpful for some people. The implementation of the project will be the techniques that we have learned from the course such as lecture retrieval based on the text that users enter.

We will use the lecture videos and lecture subtitles as the datasets. Users can enter the keyword to search throughout all of the lecture subtitles to get a particular start time that the concept discussed in the lectures. We will create a web page that includes a player. This process will have some use of HTML, CSS, and javascript coding. Using MySQL to complete the database part to store the videos and subtitles. And we will use python to complete this search part to search the keywords in subtitle documents to find the starting time. So the user can readily find the videos and know the concepts will be mentioned in what time.

In order to check if our program works as expected, we will have a list of results that show if our finding is truly related to the keyword that users have entered.

Since we are a group of two people, the total workload would be 40 hours which is 20 hours for each person. The tasks that we need to complete include:

- Create a database that store all of the lecture videos and subtitles into the database
    - Estimated time: 10 hours

- Create a web page as user interface for users to access the material. The interface may include a list of lectures,a player, a search bar to find related materia, an output that shows the result that can direct users to the specific time in the lecture that has mentioned the topic based on the keyword in the search bar, and categorize the material each week.
    - Estimated time: 20 hours
- Connect the frontend and backend and test if the project performs as expected.
    - Estimated time: 10 hours