

PROJECT PROPOSAL

1. List of members:

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2. Project Description: Our project relates to designing a search engine for online courses using YouTube developer and Udemy developer APIs. This webpage will navigate through different pages leading to list of courses based on search results or suggestions. It will include fields of online courses offered by different universities worldwide. Course description pages would provide a summary of topics that will be covered along with university ranking of the university offering that course. PDF versions might be available as an additional resource for some courses. Moreover, courses will include videos explaining each topic in a different lecture with transcriptions. Courses will either be free of charge or paid. These courses will be having a couple of timed tests and will provide a provisional e-certificate at the end of completion in case of a free course and a permanent e-certificate in case of a paid course. Furthermore, every course will incorporate in itself, a week-wise distribution of the entire course and a weekly-timeline reminder for students in order to keep them hooked to the course.

3. Web APIs:

- a. YouTube developer API
- b. Udemy developer API

4. Python Libraries:

1. Flask:

- Builds web pages
- Manages HTTP request
- Templates rendering

2. Dash:

- HTML components: make and style content like images, headings and paragraphs.
- Core components: creates sliders, graphs , dropdowns, etc.

3. Request:

- Sends HTTP request.
- Passes parameters in URLs
- Sends custom headers.
- SSL verification

4. Streamlit:

- Creates textbox
- Creates checkbox: for filtering results and conditional statements.
- Creates dropdown: for select from a range of values.
- Selects multiple values.

5. Pillow

- Image manipulation
- Create thumbnails

6. Pandas:

- Data analysis

5. Features:

1. Capabilities:

- Relevance
- Auto suggest
- Sorting on basis of rating/rankings
- Can search for courses without writing exact title
- May include ability to search within previous search results

2. Database:

- Size: the search engine will fetch results from all videos available on the websites.
- Type of Documents offered: There will be a PDF version available for understanding videos more precisely.

References

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