

Archetype Expo 2021

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Educational Resources Recommender

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Abstract:

To make any online course for students, any teacher has to search for a lot of information online and check if the information is shareable with Creative Commons license before displaying such direct content on online course websites. Many teachers who do not have the resources to create custom course material would like to share good references for students from the internet. This website provides educational resources for the online courses based on the keywords. Each user can make their own courses or learn courses made by other users. For each module heading provided, online course creators can see the recommendations for content from Google and Youtube and other such websites. There is also a custom search engine provided in the website for educational and knowledge results.

Problem Statement

To provide web suggestions for course content to online course lecturers based on keywords from their course outline.

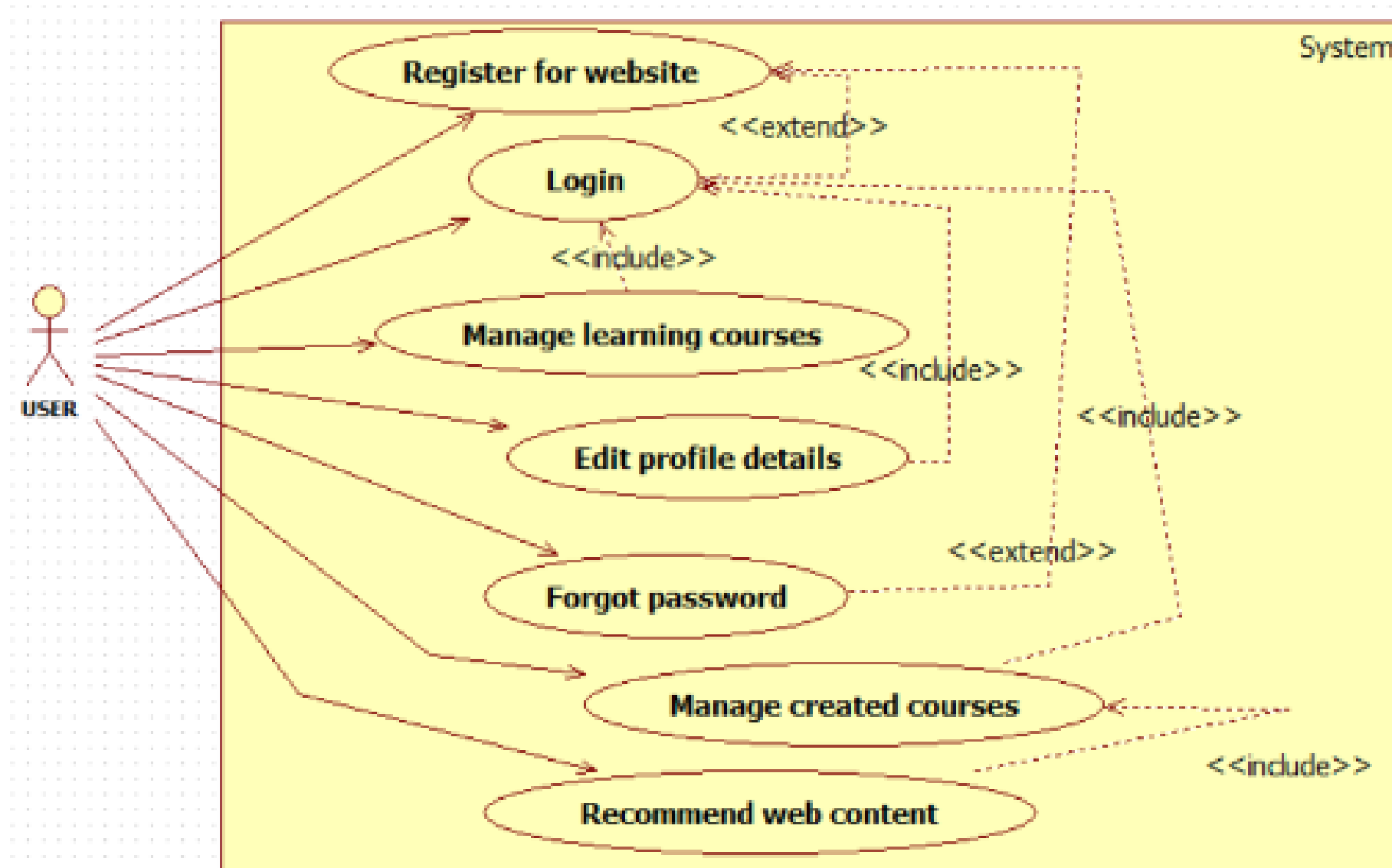
System Design-

Tools used for webpage

- 1) Flask framework version 2.0.1
- 2) Python3
- 3) SQLite3 (database system)
- 3) HTML
- 4) CSS
- 5) jQuery
- 6) Bootstrap
- 7) Elasticsearch
- 8) YouTube data API
- 9) Programmable Search Engine from Google



Use Case Diagram



Conclusion:

This design when implemented with the given future enhancements will ease the efforts of lecturers in providing quality course content for students.

Future Enhancements

- 1) This project can be made to customize the results based on language of the course created.
- 2) For the recommendations shown, an "Add to module" button can be provided, and once the content is displayed, new results can be shown in the recommendations page.
- 3) More optimization can be done on displaying more detailed text under each link provided in the recommendations.
- 4) Features like timestamps in YouTube videos from where YouTube content is relevant can also be shown in the recommendations.
- 5) This website and usage can be integrated with any online course provider.

References

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3. <https://developers.google.com/youtube/v3>
4. <https://developers.google.com/custom-search>
5. <https://github.com/maxcountryman/flask-uploads>

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