ResearchHub

Academic Social Network

Project Report

submitted by

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1 Problem Statement

Design and implement an Academic Social Network for the CSE departments of all NITs in India.

2 Potential Users

Academic Social Network is a platform that provides a safe and easy way for NIT teachers and students to connect, collaborate and share content.

3 Tools / Technologies used for implementation

Academic Social Network, ResearchHub, is designed to be built upon the popular web frameworks like bootstrap (*css and html* framework) and laravel (*php* framework). The frameworks have been chosen studying the supports provided by them in making efficient applications effectively.

Front-end

Bootstrap (css and html) - Open Source. It contains HTML and CSS based design templates and eases the development of dynamic websites. It is very useful in creating a responsive and customizable user interface that can work on all platforms. It also has detailed documentation and a vast community which makes it easy to use.

Back-end

Laravel (php) - Open Source. It follows the model-view-controller architectural pattern. It has a great routing system that replaces controllers and has easy to use migrations (database creation/updating). It also has easy to use authentication and validation.

4 Functionalities completed

1. **Login**
   Easy and fast for an existing Linkedin user as all the required details are pulled from the Linkedin database.
2. **Following other users**
   A user can search for other users and follow them so that all their future notifications are visible.
3. **Sharing a publication**
   A user can upload a paper or provide a link to some other websites where the paper is published so that all those who follow will get notified.
4. **Create Events**
   A user can share his knowledge about an upcoming conference/seminar in an interesting area of computer science with his followers.
5. **General Post**
   A user can share a message with his followers pertaining to general information.
6. **Timeline**
   Each user is provided with a tailor made home page which includes notifications about

(a) New followers

(b) Uploaded paper from a followed user

(c) General Posts (about events etc.) made by a followed user

7. **Search content**
   A user can search for other users and know their contact details and affiliations.

5 Difficulties faced (Functionalities that could not be accommodated)

1. The private messaging features although implemented couldnt be integrated into the Laravel framework due to time constraints. But we felt that this was not an essential feature as messages could be communicated as posts in the timeline of the user.

2. Also, searching by the area of interest was also not accommodated although a users areas of interest are recorded at the time of registration and hence implementing the search is a simple extension as we have already completed search for users feature.

6 Innovative ideas incorporated if any

1. Login using LinkedIn - This is a feature wherein the user can use his LinkedIn credentials to login or register. This eases the process of registration where some of the details like name, DOB, email etc. are automatically populated from LinkedIn. Also, on subsequent logins, only the username and password are to be entered.

7 Future extensions suggested

1. Updation of posts made earlier - The users must be given the option to edit and update the posts that they have made at an earlier point of time.

2. Forming and becoming a member of a research interest group - The users must be allowed to form groups and others must be allowed to become part of the groups based on their area of interest.

3. Preview of publication - The followers of a user should get to see a preview of the publication in their timeline itself without having to go to the link. This preview can be the abstract of the publication.

4. Feedback on paper drafts from other users - A researcher should be able to get feedback from other researchers in terms of up votes/comments on the draft.

8 Details of the website where the application is hosted

The application is hosted in the below URL:

`https://researchhub-anjanababu.c9users.io/public/`

Cloud 9 IDE is an open source, online integrated development environment. It allows multiple users to build and share workspaces. It also allows users to host their website at a sub-domain within their site.

9 References

1. Academia.edu - https://www.academia.edu/
2. ResearchGate - https://www.researchgate.net/home
3. Mendeley - https://www.mendeley.com/
4. Bootstrap - http://getbootstrap.com/getting-started/
5. Laravel framework - https://laravel.com/docs/