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ShareConn: An Information Sharing Website

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Abstract: In rich environments, online forums encourage users to post questions and comments on various topics. Understanding how people behave in online forums can shed light on the fundamental processes by which a community of individuals builds collective thought, but it also has important practical applications, for example, to enhance the user experience, to increase participation, or to automatically recognize bullying. Importantly, user-generated data sets in comparison to other data sources in social computing are often freely accessible for researchers. Thus, we aim to develop a website where users can interact with each other by sharing photos, videos, and other media under specific communities called ShareConn(s). A community aspect is lacking on social media websites and we will try to include features like SubConn in our website to inculcate this culture of community and togetherness.

Keywords: ShareConn, Social Media, Django, React, API, etc

I. INTRODUCTION

Reddit is a social news aggregation, web content, and discussion website. It was founded by Steve Huffman and Alexis Ohanian in 2005. Registered users can submit their content such as text posts, images, videos, and links. Communities or subreddits can be created to cover certain topics like news, politics, science, sports, etc. [1]

Far from news, pop culture, technologies, comics, films, or literature, ShareConn is essentially a big community of forums in which registered users can post about almost anything you might imagine. The generally accepted working of our website would be that the users will build SubConns, which is a community where other users can share their posts. You can subscribe to SubConn, so your most popular posts can be viewed on your front page. In addition to this users can also post personal posts as we do on Instagram. The website ShareConn allows a user to post just like that on Instagram but also achieves the feeling of a community through various SubConns.

We made sure that Shareconn has optimum privacy and security for its users. Token authentication helps us achieve better privacy over other methods. Whenever a user logs in a Unique Token is generated and is saved in the database. This token remains valid for a week. By this, we can make sure that only active users can log in to their accounts. As the token expires, it helps in reducing security and privacy breaches.

For better security, we implemented Email services. These Email services help to verify that the user has an authentic Email-ID. Whenever a user registers on the website a “Confirm Email” message is sent on the user’s email through shareconnservices@gmail.com. The user then clicks on the link and authenticates himself on the website. Also, a “Password change/reset email” is sent when users try to change/forgot passwords. The link is generated using the token of that particular user and thus no other user can use this link to change someone else’s password.

Reset Your Password

Tap the button below to reset your account password. If you didn't request a new password, you can safely delete this email.

Reset Password

If that doesn't work, copy and paste the following link in your browser:

<https://localhost:3000/forgotpasswordresetconfirm>

Fig. 1 Password reset email

II. SURVEY METHODOLOGY

Our first impression of the Reddit website was that it was overly complex and difficult to understand for a new user about its workflow and general usage. We decided that before implementing our social media website we should first ask opinions from the people who will be using the website. Being surrounded by college students who are best for taking opinions about social media we could generate some responses which would give us a direction for the development of our social media website.

Our survey was quite simple and the user only had to fill up a google form with five questions spanning usage, frequency, User Interface, User Experience, and Dark mode settings. The questionnaire includes the below-mentioned 5 questions.

- A. Why do you typically use Reddit?
- B. How frequently do you use Reddit?
- C. Do you feel Reddit's UI is complex for new users?
- D. Would you like a simpler user experience on Reddit?
- E. Are you comfortable with the current dark mode color scheme of Reddit?

III. DEMOGRAPHICS OF RESPONSES

The responses had 102 participants. The location of these responses is concentrated for individuals living in Thane and Navi Mumbai both situated in Maharashtra, India. The responses included both males and females. The responses came from the age group of 20 to 24 years and most of them were students.

IV. RESPONSES

- A. Why do you typically use Reddit?

Fig. 2

- B. How frequently do you use Reddit?

Fig. 3

C. Do you feel Reddit's UI is complex for new users?

Fig. 4

D. Would you like a Simpler user Experience on Reddit?

Fig. 5

E. Are you Comfortable with the Current Dark mode color scheme of Reddit? [2]

Fig. 6

V. TECHNOLOGY STACK

A. Django

The Django framework has been used as the main framework for creating ShareConn. Django is a python-based framework used for creating interactive web apps. Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web development. Allowing programmers to focus primarily on optimizing the website. Frameworks are used as they provide certain services to the users which helps in speeding up the development process. [3]

Some of the services provided by Django are as follows:

- 1) It provides an inbuilt admin page.
- 2) Password hashing is handled by Django using SHA256.
- 3) Django provides an inbuilt server for running websites.
- 4) Django directly connects with the database so no need to connect using PHP.

B. Django Rest Framework

Django REST framework is a powerful and flexible toolkit for building web APIs. It provides features for customizing API's and some of the features are as follows: [4]

- 1) The Web browsable API is a huge usability win for developers.
- 2) Authentication policies including packages for OAuth1a and OAuth2.
- 3) Serialization that supports both ORM and non-ORM Data Sources.
- 4) Customizable all the way down - just use regular Function-based views if you don't need the more powerful features.

C. Reactjs

React makes it painless to create interactive UIs. Design simple views for each state in your application, and React will efficiently update and render just the right components when your data changes. [5]

Some of the key features of React are as follows:

- 1) Declarative views make your code more predictable and easier to debug.
- 2) Since component logic is written in JavaScript instead of templates, you can easily pass rich data through your app and keep the state out of the DOM.

VI. DISCUSSION

We identified two issues that the current Reddit website has through this survey and by exploring the website ourselves. They are namely:

A. Clustered UI

Currently, the UI implemented by Reddit is complex and not very user-friendly. A new user finds using Reddit a bit confusing at first due to its clustered nature as multiple functionalities have been made available but are not sorted in a particular manner. A majority of users in our survey suggested that they would like to have a simpler UI for using the site than the existing one.

We tried to solve this problem by

- 1) Providing a clean and simple UI by removing redundant functionalities and only keeping those that are useful for the user.
- 2) Reduced the amount of verbose and provided only details relevant to the page that the user is accessing.

B. No Followers List

On the current Reddit website, the user is not able to see the list of users that are following them. This has serious consequences to the user's privacy as the user won't know who exactly followed.

We tried to solve this problem by

- 1) We added the number of followers and following on the user's profile page so that the user knows, whenever a new user follows.
- 2) Our website allows users to post personal posts as well and thus privacy is our top priority. When you click on the followers it gives a list of user profiles that follow the user. Thus the user knows who he follows and who follows him at all times.

VII. SCREENSHOTS

The screenshot shows a registration form titled "Sign Up". On the left, there is an illustration of a person in an orange sweater and dark pants walking towards a large screen. The form on the right contains the following fields: "First Name", "Last Name", "Username", "Email", "Password", and "Confirm Password". Each field has a corresponding input box. Below the "Confirm Password" field is an orange "Submit" button. Underneath the button is a link that says "Already have an account?".

Fig.7 Registration

The screenshot shows a login form titled "Login". On the left, there is an illustration of a person in a black dress standing next to a large smartphone. The form on the right contains the following fields: "Username" (with the text "Adwait_Patil" inside), "Email" (with the text "adwaitpatil1199@gmail.com" inside), and "Password". Each field has a corresponding input box. Below the "Password" field is an orange "Submit" button. Underneath the button are two links: "Create new account" and "Forgot Password?".

Fig. 8 Login

Fig. 9 Home Page

Fig. 10 Profile Page

Fig. 11 Edit Profile

Fig. 12 Add Post

Fig. 13 SubConn Page

Fig. 14 Add SubConn

Fig. 15 Add Comments

VIII. CONCLUSION

Reddit is an extraordinary site yet; its UI was not exceptionally easy to understand and users discovered trouble in utilizing it. Consequently, it contains a ton of antiquities that lead to a less satisfying user experience that can be accomplished. By joining the recommended changes by the clients the site can be made easier to understand.

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45.98

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7.129

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