

ShArena

- Code&&Seek

About ShArena

ShArena is an online Real time Team collaborating platform where each user has his own work space for each project, can interact with his team mates through a chat box and can view their work on a real time text editor

Why ShArena?

Real Time Collaborations is of utmost importance Now-A-Days with enhancing world and improving technology

Code sharing and getting doubts resolved on a piece of code is mostly done using mails which is very inefficient

Estimating the progress of your teammates and guiding them is very useful to support mutual growth

Collecting all the code at one place after working on different features is difficult and needs some easier and efficient way

Our main motivation came through [this](#) site but anyways it is a paid site but ours is not :p, please watch the video in the site to understand the motto of our project.

Key Features



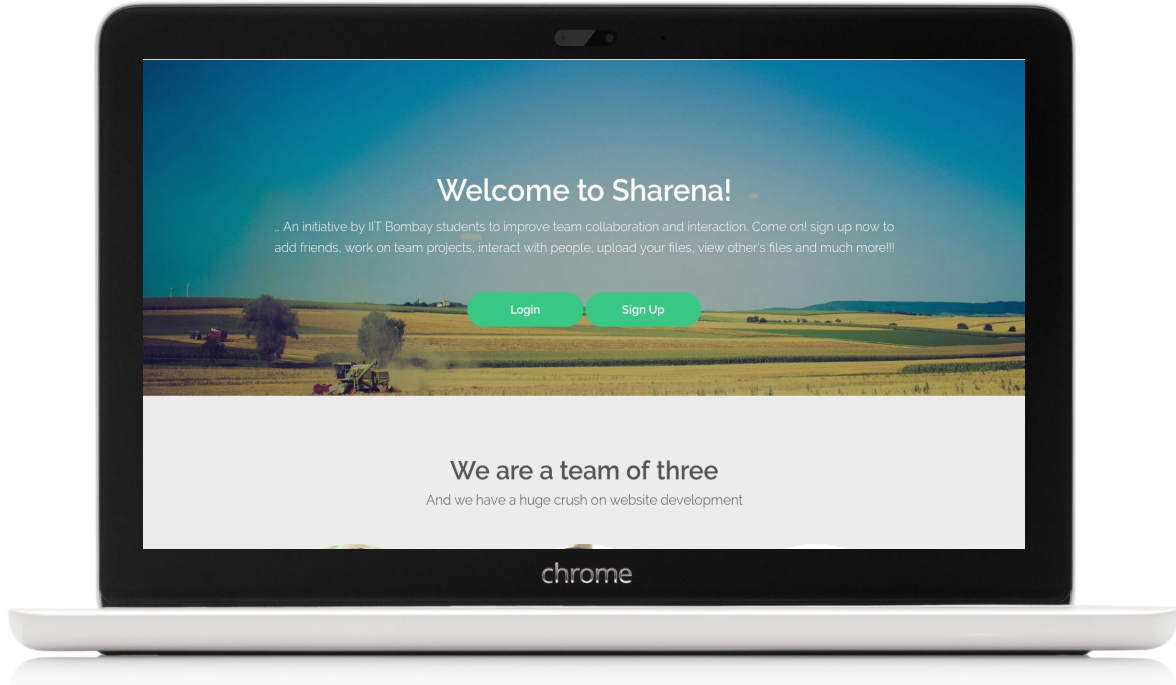
A tour on our project...tighten your seat belts

Project Website

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This is our website from where you can login or register yourself to our network

How's it Implemented?
No Algorithmic Idea is involved is in this design
(Just Simple HTML Coding)



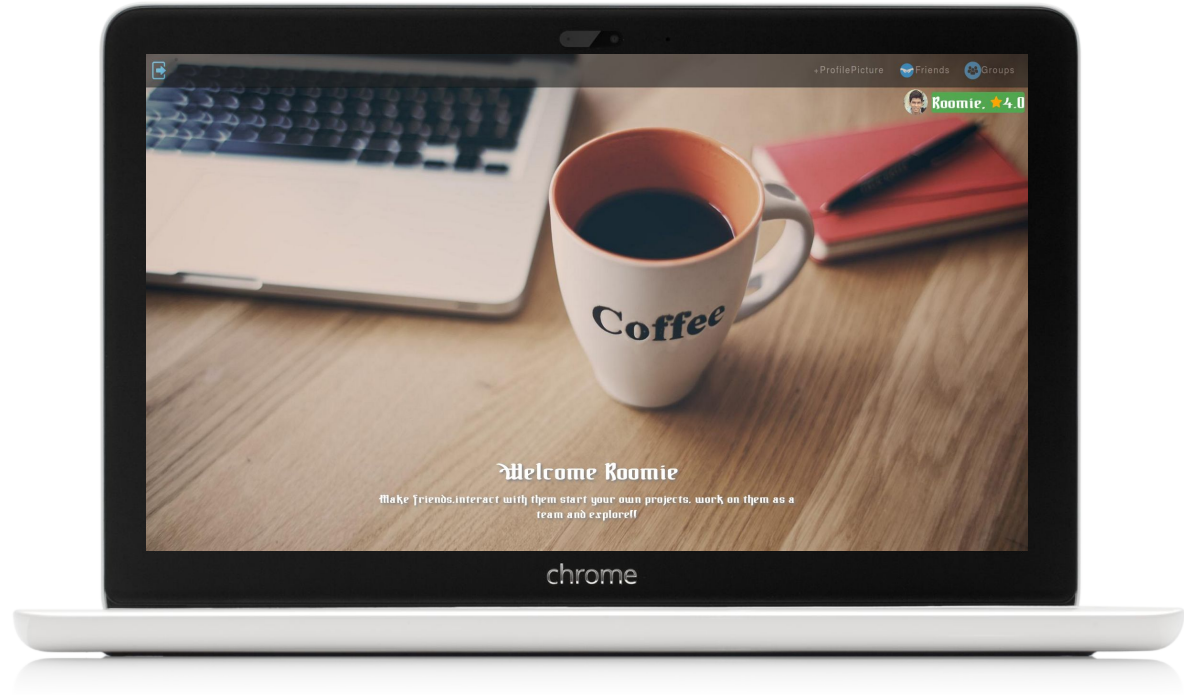
Home page

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This is how the homepage of a user looks like.

It shows the username, his rating, his profiles picture and has links to the Friends page, Groups page, Profile pic upload page(a double upload makes the new pic replace the old one), Logout page.

There is also a default picture if user hasn't uploaded one



To see the animation of homepage click on the image.

Friends Page

This is the friends page of the user.

User can send friend requests and accept/decline requests from other users.

He can chat with users by clicking on their name in friends list and can also view their profile by clicking on their name elsewhere

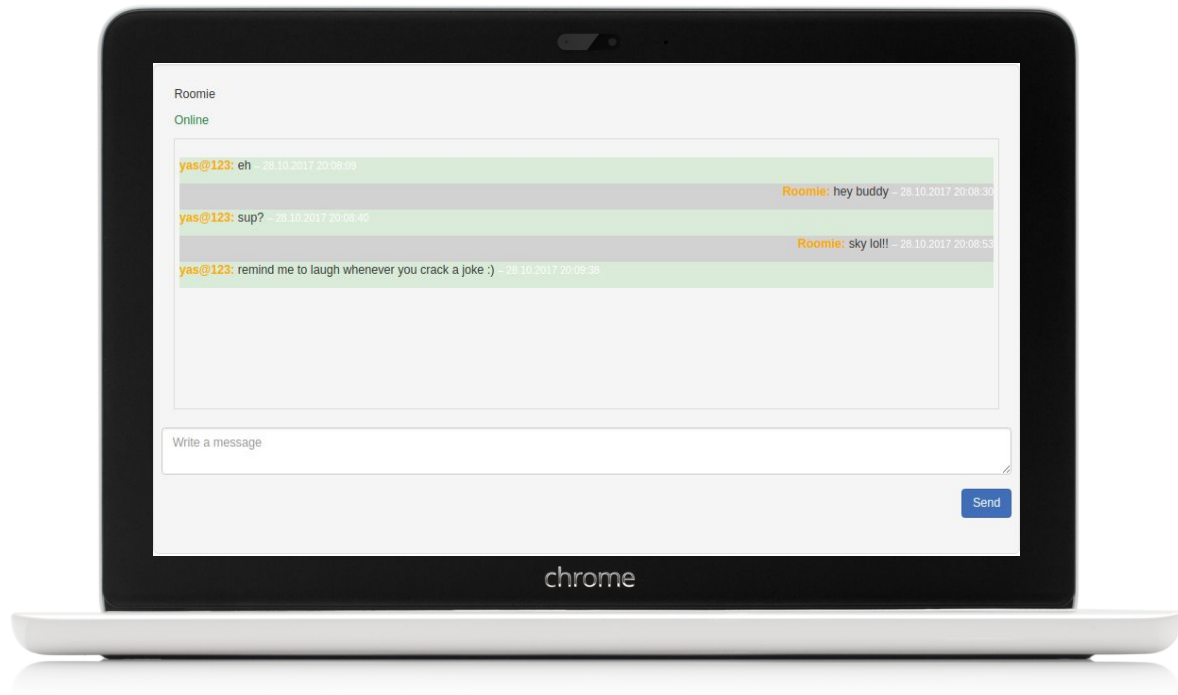


Chatting with other users

— — —

Here you can chat with your friends and also crack lame jokes like my roomie :p.

It is a real time chat showing whether the user is online or not and also notifies you when the other user is typing



Profile Page

Here you can see other Users' Details, their rating based on review of his friends, projects he is involved in.



Rating Page

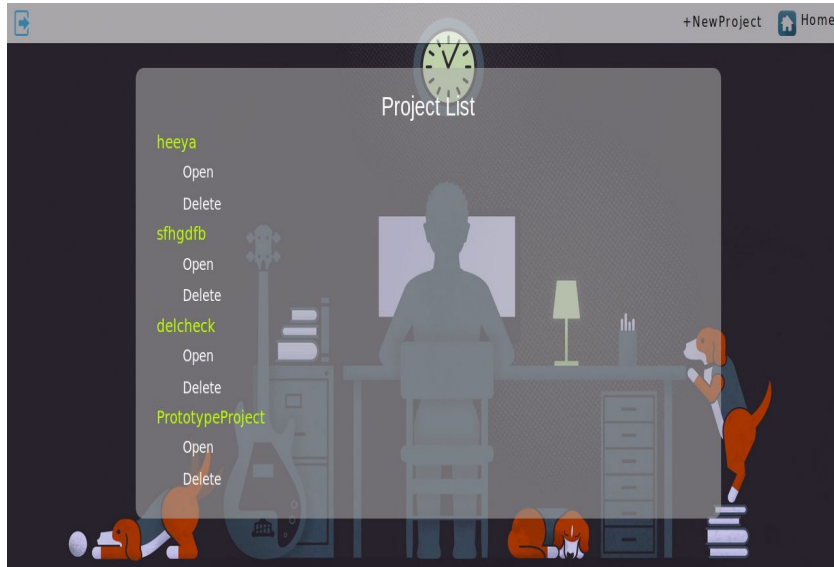
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Here you can rate your friends based on the projects they are involved and their professional esteem.

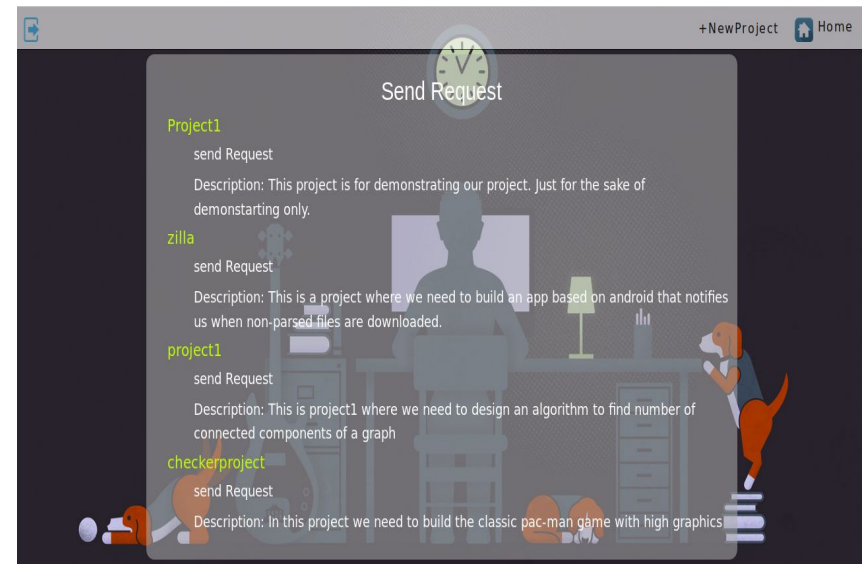
Also rating has been done interactive through animation(Moving the cursor over the stars highlights the number of stars you have currently crossed)



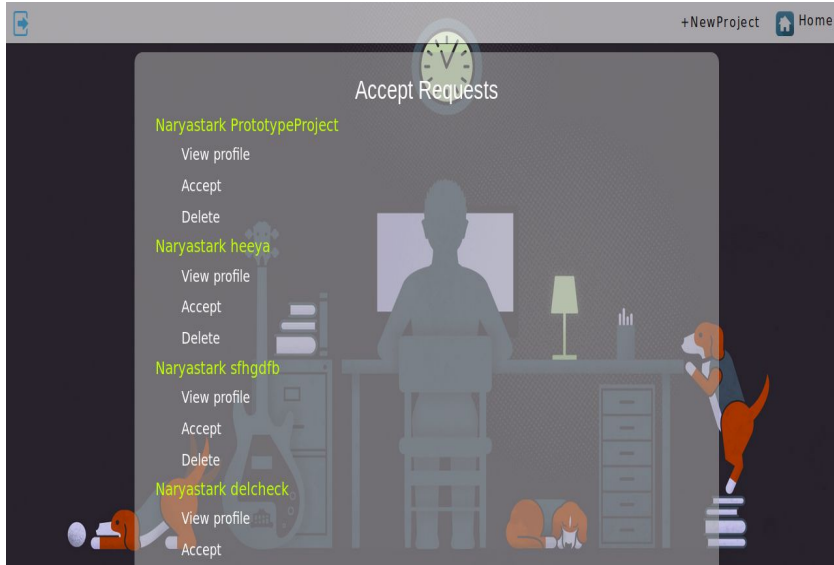
Click on the image to see animation



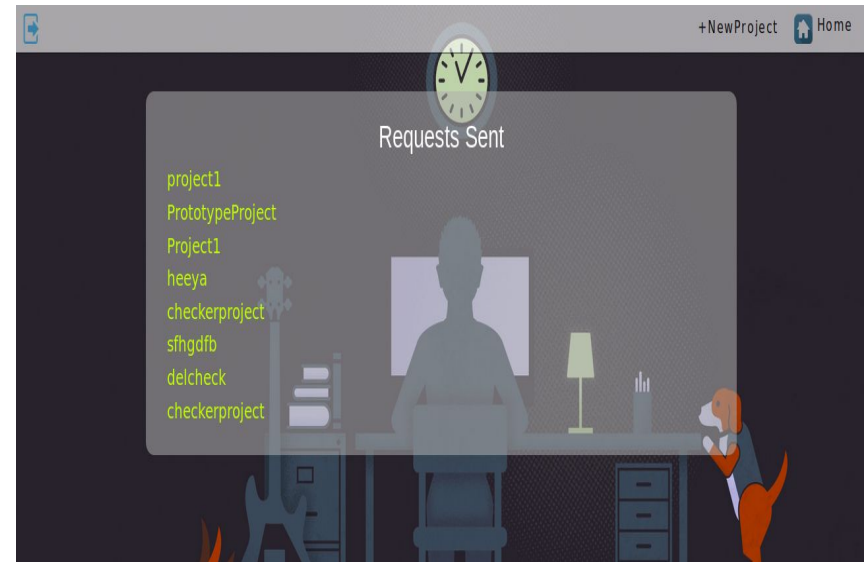
User can see the list of total projects he has been involved in. He can open the project to view his files, also others' and can also delete the project (don't worry a prompt will be popped up before deleting). He can also create a new project from the +NewProject link with a unique title and add members to it



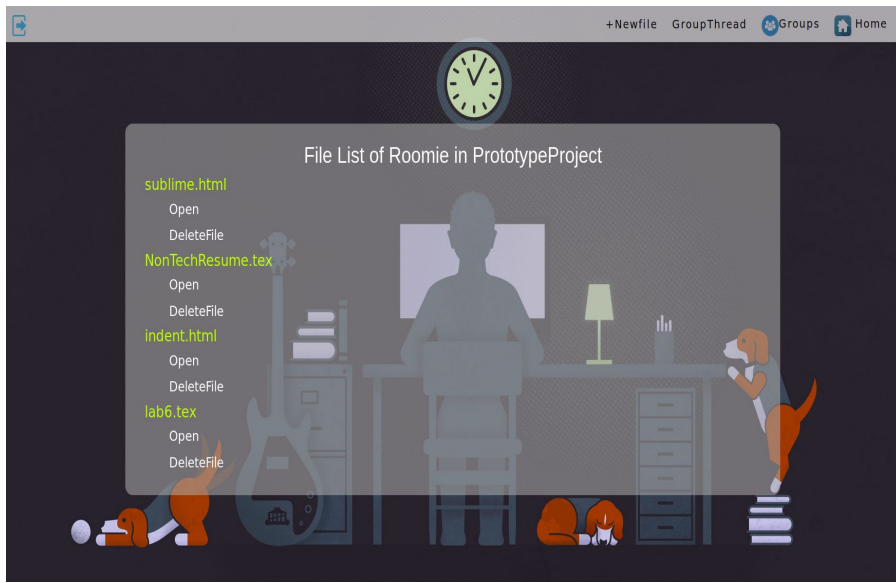
Here the user can see all the projects in the Data-Base that he is not involved in. Based on the description given he could match his interests and can send join-request to all the project members.



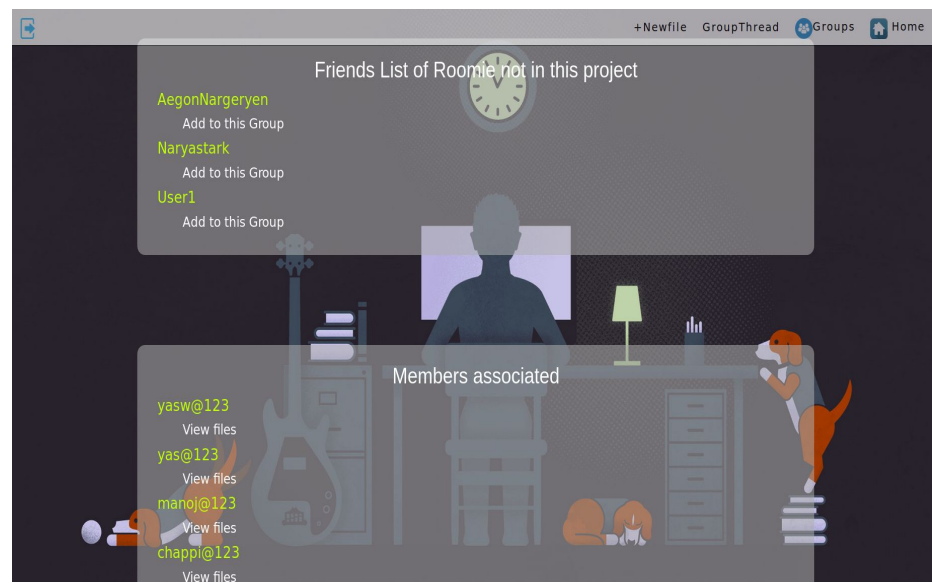
User can accept the join-requests of the other users for the projects he is involved in. He can view their profile and based on rating and other measures he can accept/decline him.



User can also see the list of all unaccepted requests.



Here the user can see the files he has uploaded in the project. He can either open or delete them. He can add new files by clicking on +Newfile link. He can also see the updates posted on the project by clicking on GroupThread link



Here he can see the list of friends who are not in the project so that you can add them by clicking on 'Add to this Group' link
Also it shows the list of members associated with the project and you can view their files by clicking on 'View files' link

Group Thread of delcheck

Implementation of Dijkstra's algorithm Oct. 28, 2017, 9:57 p.m.

Author: Roomie

Message: some write Dijkstra's algorithm code Yaar

Suggestion to @Roomie Oct. 28, 2017, 10 p.m.

Author: AegonNargeryen

Message: First of all you need to know what is an greedy approach then you can solve it.

Suggestion to @Roomie Oct. 28, 2017, 10:02 p.m.

Author: manoj@123

Message: yeah,i agree with @Aegon and i suggest @Roomie to look into Greedy approach Paradigm

This is a group thread where everyone of same project can interact with each other,suggest changes to others' work, help them in sorting out their problems and also can see the updates on the project if any.

You can add a post by clicking on the '+NewPost' link above in the nav-bar.

```
#Program to calculate the factorial of a positive number
def factorial(n):
    if(n==1):
        return 1 #stopper for recursive call
    else
        return n*factorial(n-1) #recursive call

print(factorial(5))
```

Undo Redo

Chat box

Search for names...

yasw@123

yas@123

manoj@123

chappi@123

Roomie

Prototype

MergeForm

Title:

To_user: yas@123 ▼

filename lab9.txt ▼

Submit

MergeRequests

From User1 Title merge1

view delete accept

Okay..okay...there are many things i have to explain here. This view is generated when you open **YOUR** file in the project. Programmers do make mistakes, so there are undo and redo buttons to our rescue. A searchable chat box makes it easy to contact your teammates whenever in need. Clicking on a name in chat box opens a chat window for both the users very similar to that of facebook.

Merge Feature

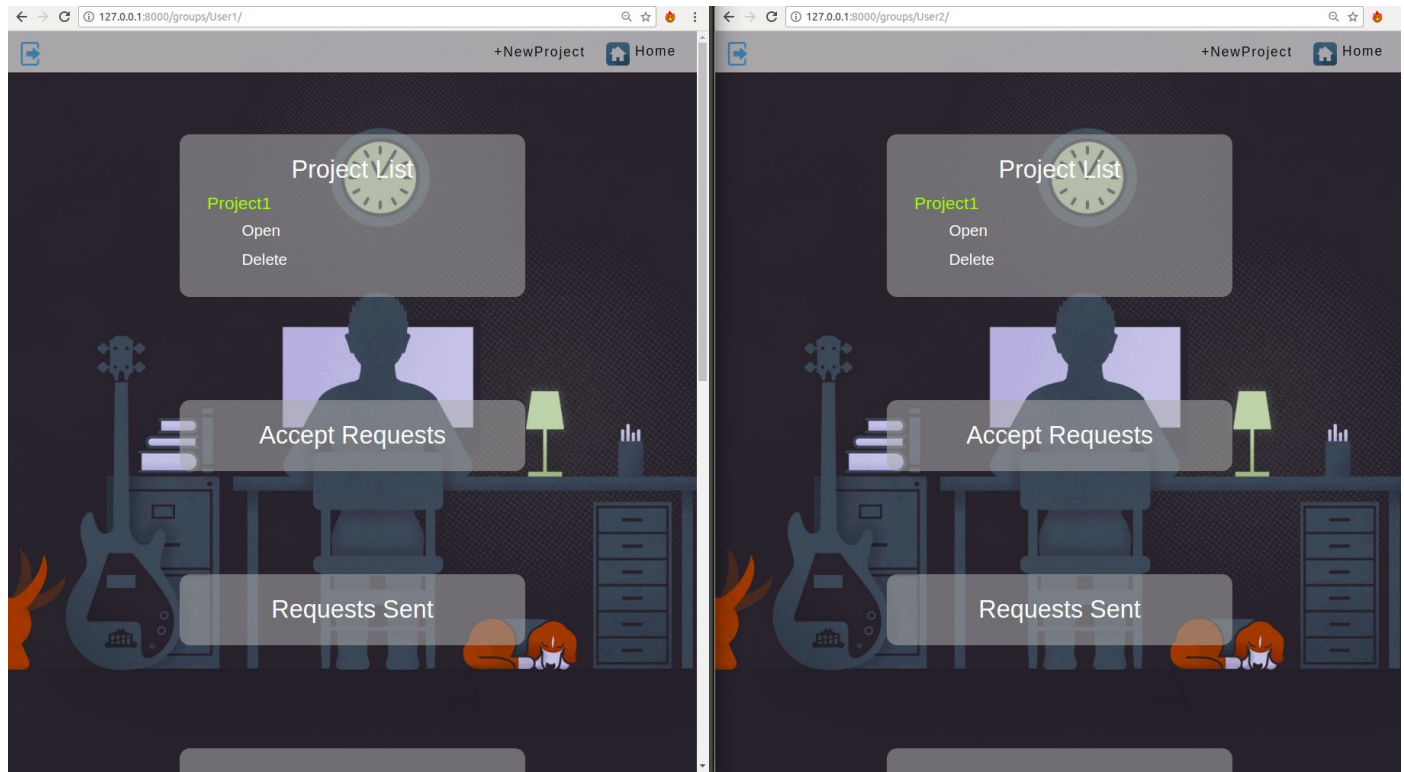
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Imagine you are working on a large project and your team mates decide to work on different features.

The main problem arises when you have to merge all the code. But don't worry ShArena is coming to your rescue. With the Merge feature code sharing has become lot easier!

Here there will be a person who decides to collect all the code. All the contributors work separately and when it comes to merging them, all the contributors send merge requests to the collector and the collector places @merge 'User_name' at the places where the code of a specific user has to come and accepts his merge request. That's it!! It's that simple!!! Not only this, there are lot more uses of this feature, this is just an example

P.S: When you fill a merge form with specific file of a user as destination a merge request will be sent to him with entire matter in the file from which you have sent him a request



Click on the above image to see one of the uses and working of merge feature

Live updating Feature



This view is generated when you open **OTHERS'** file. This view also supports live updating i.e, when the owner of this file is editing it right now, the changes can be seen live. To watch how live updating works, ***click on the image.***

**Wow all features are so cool, but how to
implement?**

Live Editing

Done using Ajax,
Javascript and Django
views

We are auto saving the file every time the user press a key. And for the user who wants to see the live changes, we are recursively sending the ajax requests to the django view and retrieve the saved data

Project Requests

Done by using Django
Models

When any user sends join-request to a project we have saved a object with 2 fields(user and project) he has send request to. Then while rendering the projects page we extract the requests sent, requests he can accept and so on by using projectrequest's object's.

Friends & Groups

Made by Using
Django-friendship

We have created 2 models friends and friendrequest (both have 2 fields user1 & user2). When we are rendering the friends page of the user we can get the list of his friends from objects in friends and friendrequests by filtering user1 in friendrequests objects. User can also create groups, add his friends to it and can accept the project requests. Groups are created to work on a project

Merge Feature

Implemented Using python
, Django-views and ajax
post requests

We have implemented this feature by sending the ajax post request containing the data, from_user and to_user to django view which creates a merge request model with that data. Then for merging with the tag “@merge user title” we used a simple python script with basic string replacement methods

Chat-Box

Implemented using
Django-private-chat

We have implemented this feature by using inbuilt Django-private-chat package where Dialog objects are created which are one-to-one on user and when the user wants to chat with the other user we invoke their dialog object which consists of messages till now and when user sends the message to others' it gets stored in their Dialog.
