Mini Report – CS580K

Final Project

ShareSpace

(All In one streaming service application)

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Objective:

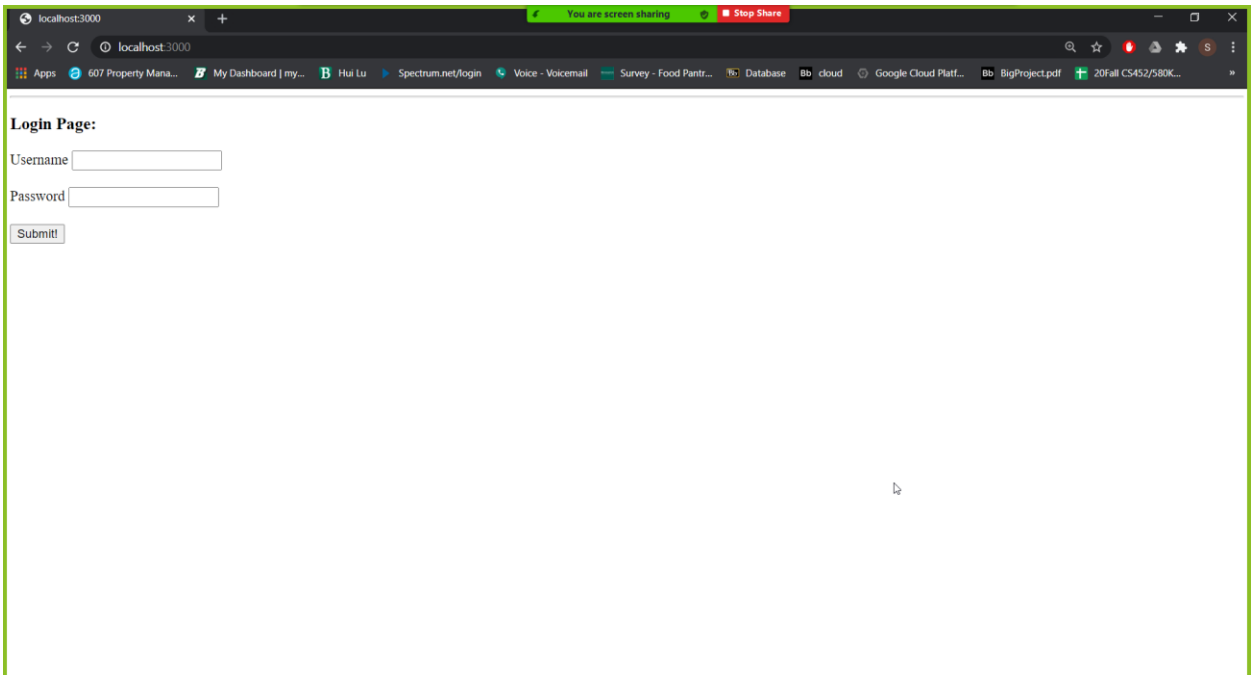
Our objective was to create a streaming service web application which would allow us to upload our personal files such as videos, photos, documents, etc. and stream various media files such as songs and movies. We were inspired by Netflix, Spotify and Google Drive's services and how they each as an individual provide a service. However, we could not all these services in a single space. That is why, we decided to develop this application named as ShareSpace.

Achieved Objectives till now:

1) Created a login page for users to login to their account.
2) Created a basic interface to display the home page.
3) Given an option for the user to upload a file which will be stored in mongoDB's gridFS which is running on AWS server.
4) We have also provided an option for the user to view his own collection.
5) User can currently only view an image and just the file names of other media.
6) Rendering of videos, songs and other files will be done in coming days.

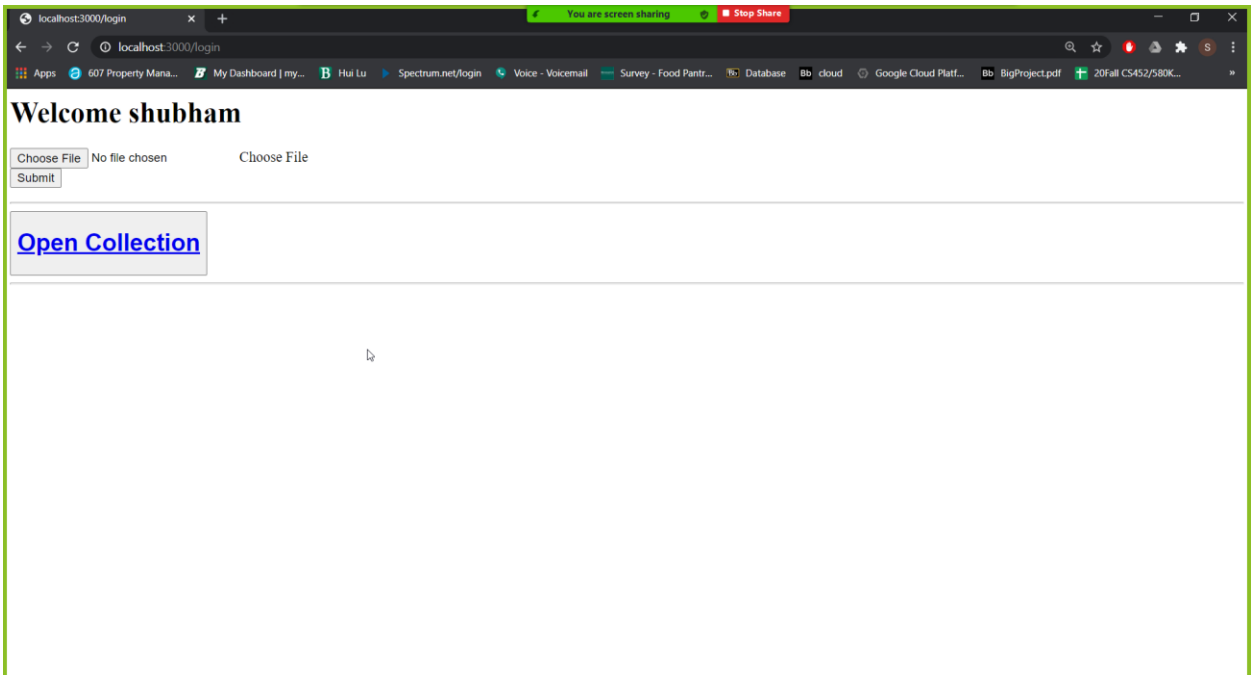
Login Page

- Used basic html and CSS to create a login page for the user as shown in the figure below.
- The details of the user are stored in the basic mongoDB database and we have encrypted the details of the user using crypto in node js.
- We will be adding the page for registration of the user in coming days.
- We have used a very basic template to create the login page and will be upgrading it with bootstrap/angular-js in coming days.



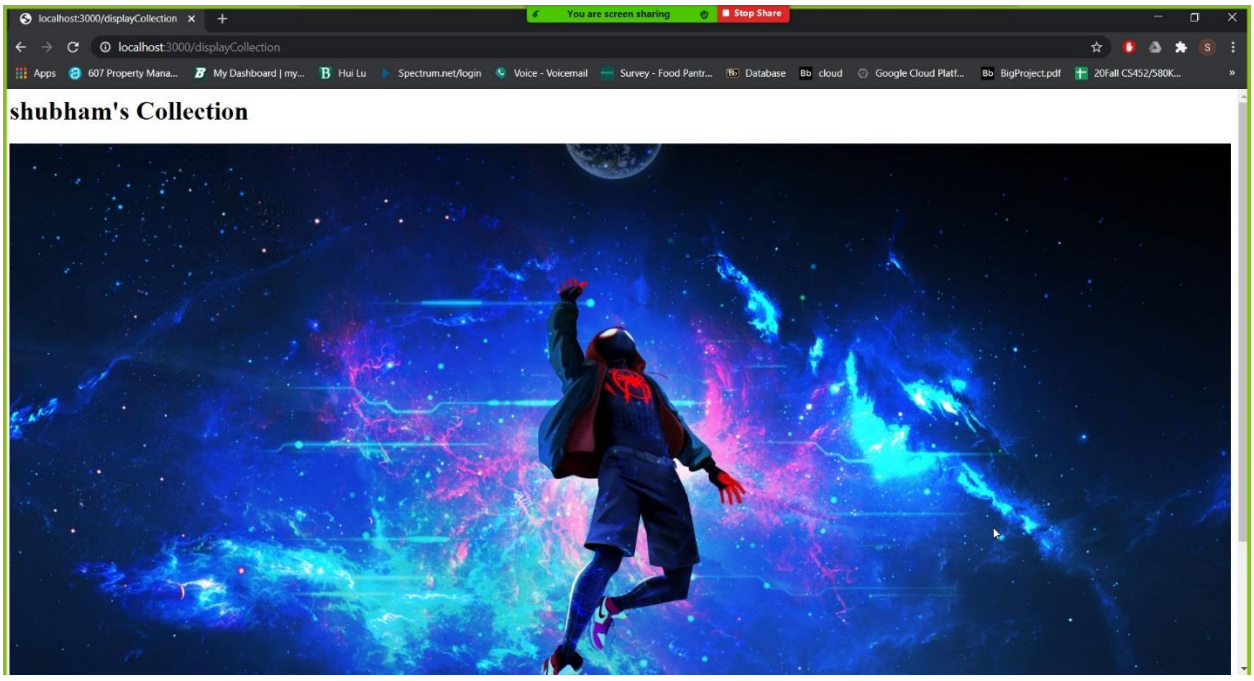
Home Page

- After the logging page, we will get the page similar to the following image.
- We are storing the credentials of the user that has just logged in and displaying it as a welcome message.
- Currently we are using username as our unique identity to perform important operations in our application.
- We will be hence using this username for further CRUD operations.
- We will be allowing our users to create a collection by providing them with a template to choose any file of their choice from their devices which we will be uploading them further to our GridFS storage and also attaching user's credentials as metadata to the file.



Collection Page

- The collection page has the template to display all the files in the database.
- To display various data dynamically we have used express-handlebars template engine. This allows us to write short html code and render that specific code template for multiple files.
- After we choose a file and upload it, we use multer library to upload the file to our gridFS storage system. By using multer we can upload multiple files simultaneously.
- For input and output of the files, we have used read and write stream provided by the gridFS's library.
- These read and write streams will provide us the pipeline to display the actual image which is stored in our database rather than just the properties of the file.



Remaining Characteristics

- Creating a more user friendly login and registration page.
- Providing better encryption for user's credentials.
- Creating a group functionality where an individual can share files with a group of people.
- Creating streaming services for files for songs, movies, etc.
- Providing partitions to access various types of files.