San Francisco State University

geec.io

EC2: gpreyes.475 | GitHub: https://github.com/weksos21/GEEC

**Online Platform to Spark Community Dialogue
Reddit Style**

ISYS 475 Final Project

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Executive Overview

The San Francisco State University community is comprised of individuals from various backgrounds originating from many different parts of the world. When attending SF State they collectively bring together their own experiences while simultaneously contributing to the shared experience here at SF State. Whether the individual is a student, faculty, or staff member, everybody can contribute to this shared experience and voice opinions for the betterment of the community.

With that in mind, our project objective is to develop an online platform to allow the SF State community the chance to voice their opinions by sharing topics that can lead to
- Betterment of the community
- Bring to light opportunities that can be improved on
- Start discussions about common/opposing thoughts
- Answer Questions
- Spotlight upcoming social events, etc.
- Expand understanding of other cultures, backgrounds, experiences, etc

With this platform, the vision is to create a digital, casual public forum listing that can be accessed anytime from anywhere and allow the SF State community to share and inquire about their collectively shared experience.

To accomplish this objective, our team will develop a functioning prototype using MEAN IO along with Amazon's Web Services (AWS) as the server.

The individuals responsible for this project are as follows:
- Geneve Reyes
- Earlvin Rivera
- Eric Manansala
- Christopher Lantin

Project Description and Objective

The project objective is to develop and implement an online website that the San Francisco State community can use as a platform to encourage and spark dialogue amongst each other. One advantage that the community has is that it has access to a fairly diverse population of students, faculty and staff in regards to, but not only: ethnic background, nationality, original place of residency, cultural or locational upbringing, social values, social interests, social viewpoints, personal experiences, world-views, personal interests, subject of passion, etc.

For the functional components of this online platform we are using EC2 Amazon Web Services (AWS) cloud solution. The EC2 AWS systems is essentially a pay-as-you-rent computer system that allows the user or site administrator (in this case, us) to run a fully functional web app with the help of Amazon servers. In addition we will utilize MEAN IO to develop the front-end and back-end of the system.

System Users

Target Audience
The target audience for this online platform are individuals directly connected to the SF State community such as Students, Alumni, Faculty, Staff. To manage the integrity of this platforms contributing community, we will implement 'OAuth' technology to allow only users within the SF State community by utilizing valid 'sfsu.edu' emails issued officially by the campus. As for the prototype system being developed, the OAuth system may not be fully integrated until its final iteration.

The importance of restricting the online contributors within this limited scope is to create a small enough community that the topics shared and discussed are familiar in the sense that they are experiences and topics shared within the general vicinity of the SF State Campus.

Goals of System Users
The goal of system users is to utilize the provided online platform to share and contribute topics to express their individual interests/concerns and share with the collective community. By doing this, the intention is to spark conversation dialogue between interested individuals who can provide their viewpoints on the matter via the comments section of the site. Because of the diverse background of the community, readers or participants of the topics should get a range of viewpoints supporting either end of the spectrum and everything in between.

System Usage Patterns
A typical system usage pattern is as follows:
1. User Visits site:
2. User login and User Validation
3. User Browses current Topics & Comments submit by others
4. User Votes on any topics of interest
5. User submits own topic/question of interest
6. User logs out

How System is Designed to Attain Project Objective

The overall objective of the online platform is to spark dialogue and invite users to ask questions keeping in mind their general audience the SF State community. By having an online platform, this can eliminate some real world variables that sometimes hinder this kind of dialogue.

For example, in the real world, when an individual has the inclination to share an experience, topic or ask a specific question, sometimes
- No one is immediately available to share topic with
- Individuals present are not interested in the particular topic
- Individuals present are not knowledgeable or can speak on topic
- Shyness can overcome and prevent dialogue to happen
- Individuals present are numerically too low to continue a full discussion

In contrast by providing an online platform, real world limitations are bypassed as the topics and dialogues are stored indefinitely and can be accessed and contributed to anytime by interested individuals that would like to add their viewpoints and give back to the community. By having this type of dialogue, the intention is provide the necessary discussions to happen for every individual to take from it their own personal findings and learns.

Conclusion

With the prototype developed and processed through an initial beta testing phase, our conclusions have shown that the online platform developed provides the functionality outlined in the Project Description and Objective section of this document. Sample Users were able to successfully access the online site and read existing posts by others users, up vote topics they personally have interest in, and provided comments to push forward the discussion of topics. Additionally, users were able to post their own topics and questions of interest.

Examples of such topics and questions include:
- ❏ Campus Graffiti: The line between expression of ART and disrespectful vandalism to our campus
- ❏ Respect Your Peers: Personal phone conversations in community study locations, specifically the 2nd floor study room in the Business Building
- ❏ Working in Groups: Why some contribute and why some don't contribute at all - share your experiences
- ❏ Cultural Foods: Bay area transplant here, I've always been intrigued by the different cultures here - anyone mind sharing their favorite cultural dishes?

During the testing phase: context and intention of the website had to be fully explained to emulate as real of an experience for the sample users.

Results show that initially, despite the ease of use to navigate the online platform, users were unsure the full extent of the websites intentions because of the relative lack of posts available already on the site. Additionally, the short amount of time spent testing limited the sample users interactivity and frequent access of the site. Because of this, the development team for this project has suggested to add additional features that will contact users via email when other users have interacted with their posts, to encourage repeat visits to the site. Relatively, this can lead to increase in activity on the site.

With a prototypal system functionally running, we can continue initial testing and document the effectiveness of the online platform and evaluate whether or not it meets the initial requirements of this project. The data collected will be used to enhance the interactivity of the site and encourage frequent repeat visits to help the online platform flourish with meaningful dialogue. Future plans will work towards a complete public release of the online platform and share an environment of dialogue for the San Francisco State community.

Appendix

Screen-Shots

GEEC

👍 19 Working in Groups: Why some contribute and why some don't contribute at all - share your experiences ->comments(4) Delete

👍 15 Cultural Foods: Bay area transplant here, I've always been intrigued by the different cultures here - anyone mind sharing their favorite cultural dishes? ->comments(0) Delete

👍 13 Campus Graffiti: The line between expression of ART and disrespectful vandalism to our campus ->comments(4) Delete

👍 12 Respect Your Peers: Personal phone conversations in community study locations, specifically the 2nd floor study room in the Business Building ->comments(4) Delete

Submit a new issue

Description

Post

Working in Groups: Why some contribute and why some don't contribute at all - share your experiences

👍 10 - by user I want to invite my group mates to my funeral so they can let me down one more time. Just Kidding

👍 0 - by user Hahaha, so true

👍 0 - by user There are those who take initiative and lead, and typically take on the challenge of directing others

👍 0 - by user I noticed that many at SF State fail to contribute as much to group work because of their work schedule and load

Add a new comment

Comment

Post   Back

Campus Graffiti: The line between expression of ART and disrespectful vandalism to our campus

👍 0 - by user   This is a topic I am really interested in talking about
👍 0 - by user   I've seen this as well, recently a stop sign was vandalized unnecessarily :(
👍 0 - by user   I think I know which one, the one on the walkway towards stonestown?
👍 0 - by user   I don't agree with vandalism but at the same time Art is Art no?

Add a new comment

Comment

Post   Back

System Components

For this project we are using the MEAN stack from mean.io.

MEAN stands for:

mongoDB
MongoDB is the leading NoSQL database, empowering businesses to be more agile and scalable.

express
Express is a minimal and flexible node.js web application framework, providing a robust set of features for building single and multi-page, and hybrid web applications.

ANGULARJS by Google
AngularJS lets you extend HTML vocabulary for your application. The resulting environment is extraordinarily expressive, readable, and quick to develop.

node JS
Node.js is a platform built on Chrome's JavaScript runtime for easily building fast, scalable network applications.

MEAN is a framework for an easy starting point with MongoDB, Node.js, Express, and AngularJS based applications. It is designed to give you a quick and organized way to start developing MEAN based web apps with useful modules like Mongoose and Passport pre-bundled and configured. We mainly try to take care of the connection points between existing popular frameworks and solve common integration problems.

- learn.mean.io

To deploy GEEC, we are using EC2 Amazon Web Services (AWS) cloud solution. The EC2 AWS systems is essentially a pay-as-you-rent computer system that allows the user or site administrator (in this case, us) to run a fully functional web app with the help of Amazon servers.

Simplified Sequence Diagram
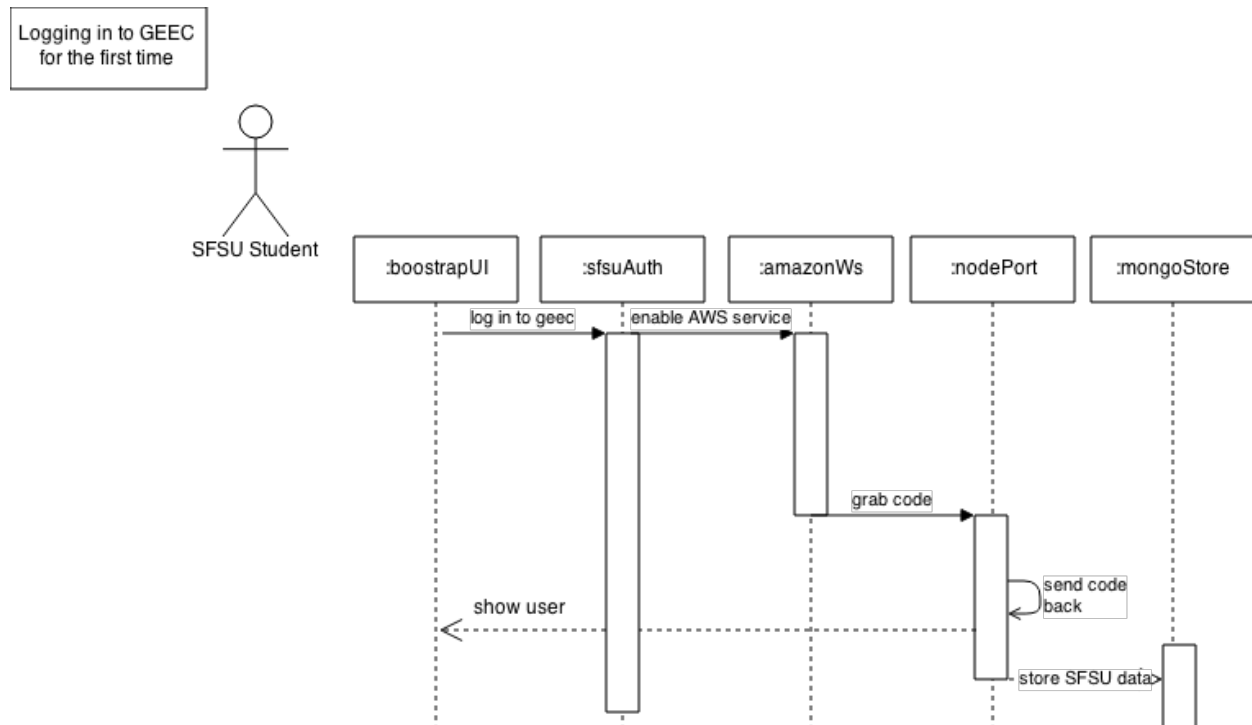
The above diagram shows the systems involved during an events sequence. This particular (simplified) sequence diagram shows the first time login event sequence for a registered SFSU student.

The first system a user is to interface with is the user interface created in HTML/CSS using the Bootstrap Twitter library. In this screen, a login notification will prevent the user from going further into the systems unless able to prove SFSU student or staff credentials.

Upon entering valid SFSU credential, SFSU's authentication system will allow the user to go forward into the rest of the system.

The Amazon backend will begin to serve the rest of the system by pulling the necessary code and data store to show the first time user what has been stored by previous users such as previous and current (voted on) issues.

The Node.js backend code contains all the necessary porting protocols that is needed in order to serve the app. This code will also interface with the data store in order to properly show appropriate data that is consistent with the apps current dynamic state.

Finally, the MongoDB store that contain past votes and issues will reflect the present state of the app according to a dated order. The Mongo store's job is done once it stores basic SFSU student data into a "user store" for future use.

Context Data Flow Diagram
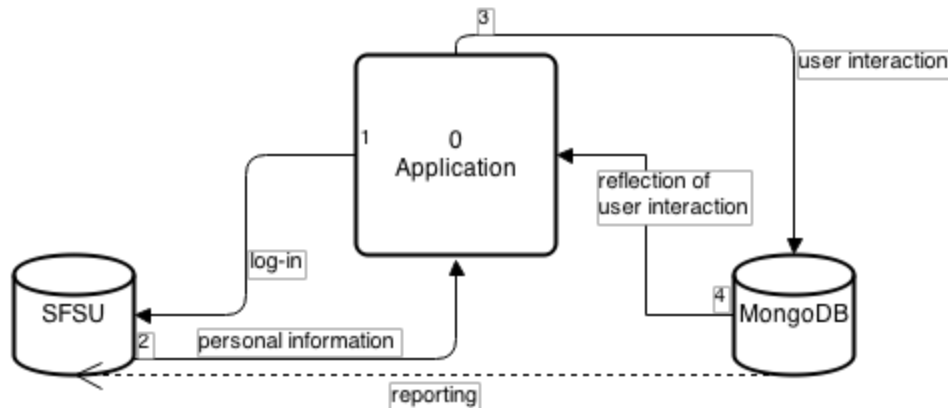
0. The application layer is composed of a simple front end created with a framework utilized in class. The backend of the app will be created using MongoDB for data stores and Node for backend code and porting/serving.
1. The user will first see the application layer of the system. In this layer, user will be required to log in using an San Francisco State University ".edu" email address.
2. With the discretion of SFSU technology bodies, SFSU administration will authenticate credentials before allowing user to move forward. Only the most basic information will be needed for this app to work such as: Student ID, DOB, gender, etc.
3. At the user interaction layer, data stored by user such as votes, comments, and suggestions will be contained in a MongoDB database.
4. At the fourth layer, whatever action the user have performed will be reflected on the frontend accordingly. For example, if a user upvotes a topic, the user will see the added points he/she has invoked.
5. The dashed layer is an optional layer that may be implemented at a later iteration. What this layer will do is collect data according to what users are deeming to be important issues. By returning results to SFSU administration, data analytics tools will be used in order to help make decisions.

Wireframe Diagrams

<u>User Interface | Front Page</u>

<u>Submit Page</u>