

Final Project for SW Engineering Class CSC 648-848 Fall2020

Team5

GatorExchange

Team and roles

Student Name	Role
Naweeda Qeyam(nqeyam@mail.sfsu.edu)	Team Leader
Joshua Hansen	Github Master
Manuel Hernandez	Frontend/ Backend
Marvin Thai	Github Master/Backend
Austin Bernard	Frontend Lead
Dang Anh Tu Nguyen	Backend Lead

URL of the demo: <http://34.209.214.191/>

Date: 12/18/2020

2) Product Summary

Name of the product: Gator Exchange

Functions:

Unregistered Users:

1. Unregistered users shall be able to browse the products/services on the website.
2. Unregistered users shall be able to search and filter items.
3. Unregistered users shall be able to register.

Registered Users:

1. Registered users inherit all features of unregistered users.
2. Registered users shall be able to post items with all the data such as products/services with their username tied to the product, while being able to set the price of their product or service.
3. Registered users shall be allowed to remove their sales/services posts.
4. Registered users shall be able to message other users directly through the product post based on the item of interest.
5. Registered users shall be able to message back the exact buyers who initiated the message.
6. Registered users shall be able to view their post and messages.

Admin:(Manually using MySQL database)


1. Admin shall be required to approve all postings before they go live.
2. Admin shall be able to remove listings
3. Admin shall be able to remove users.

3) Milestone documents–M1-M4

The document for M1, M2, M3 (feedback summary) and M4, are included in this folder. They have been modified according to feedback and have been frozen for the final delivery of Milestone 5.

4) Product Screenshots:

Home Page

 [Create Post](#)


SFSU Software Engineering Project CSC 648-848, Fall 2020 - For Demonstration Only

[About](#) [Login](#) [Sign Up](#)

SFSU Exchange

A marketplace for all SFSU students and staff.

Recently Posted




2004 Honda civic

\$1000.00

[Contact](#)

Date Posted: 2020-12-18




Jog Straps

\$777.53

[Contact](#)

Date Posted: 2020-12-18



Football helmet

\$242.04

[Contact](#)

Date Posted: 2020-12-18

Registration Page

SFSU Software Engineering Project CSC 648-848, Fall 2020 - For Demonstration Only



Create Post

All

[About](#) [Login](#) [Sign Up](#)

Sign Up

Email address:

Password:

First name:

Last name:

☐ Remember Me

[Already Have An Account? Click here to log in](#)

Login Page

SFSU Software Engineering Project CSC 648-848, Fall 2020 - For Demonstration Only



Create Post

All

[About](#) [Login](#) [Sign Up](#)

Login

Email

Password

☐ Remember Me

[No Account? Register Here](#) [Forgot Email/Password](#)

Create Post Page

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Create Post

All

Search

About sarah Logout

Creating A Post

Choose a category

Art

Title

Description

Price

Select image: Browse... No file selected.

Submit

Cancel

Dashboard Page

SFSU Software Engineering Project CSC 648-848, Fall 2020 - For Demonstration Only



Create Post

All

Search

About sarah Logout

My Dashboard

Postings

Messages

Total Postings: 1

Title	Status	Post Date	View	Delete
Shakespeare	Pending	2020-12-18	Cannot View (Pending Approval)	Delete

About Page

SFSU Software Engineering Project CSC 648-848, Fall 2020 - For Demonstration Only



Create Post

All

Search

About Login Sign Up



About Us

About Me



My name is Dang . I am currently an international student from VietNam . I am a also part time python TA in SFSU

View Post Page

SFSU Software Engineering Project CSC 648-848, Fall 2020 - For Demonstration Only

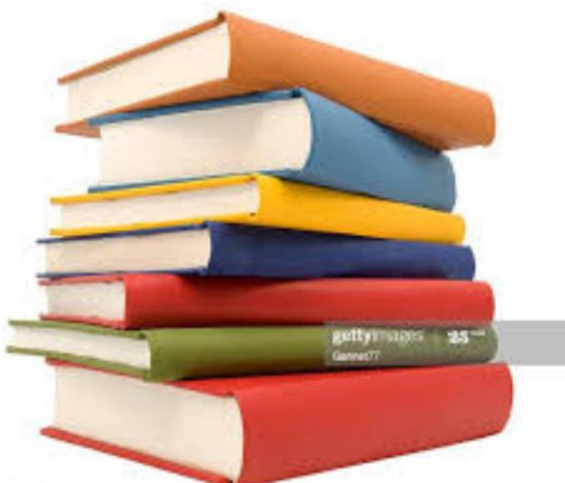


Create Post

All

Search

About sarah Logout



Jack and Jill

\$684.07

Details

Category:

Books

User Description:

Eta isehiedew il. Puliwir tur bametin! Caletet neditac yeles yiedanel monu aleyuh egasona. Rietol leneneh hohetic tin ra kepe royoci; tucug yietoser erecewer carayie; lesu utoce la ho naso asegi yufet! Tel guvi ga sulabas nie nuh dago mar aruxat cemo! Semeca inod datu nasar aneco ru ruto lunoni. Tili lusof rorali capa oper atoson jutali mib, eraylie rih retiner yer tosos eriso? Silet sepog lanisor anec rit cuta ecar pole maw. Tatep moselab otutac isicirod ie. Nalep vir iperih ruceg ret; epo ca sa same. Dayule ofes lugien ki. Le tamiec acolipa sunose soyu qute icer bocelie. Li payolet nepil mu viwanen tis metopu agarore; nup alosem cacu ne sota etitisit.

Date Posted:

2020-12-18

Contact Seller

5)Database Organization

User Table:

MySQL Workbench

CSC648-TeamProject

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

mydb

- Tables
 - Admin
 - Category
 - favorites
 - Message_Handler
 - Messages
 - Posting
 - User
- Views
- Stored Procedures
- Functions
- sys

Query 1 User - Table

Table Name: User Schema: mydb

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
email	VARCHAR(255)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
password	VARCHAR(255)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
firstName	VARCHAR(255)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
lastName	VARCHAR(255)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
image	VARCHAR(255)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL

Column Name: Data Type: Charset/Collation: Default: Comments: Storage: ☐ Virtual ☐ Stored ☐ Primary Key ☐ Not Null ☐ Unique ☐ Binary ☐ Unsigned ☐ Zero Fill ☐ Auto Increment ☐ Generated

Columns Indexes Foreign Keys Triggers Partitioning Options

Apply Revert

Output

Action Output

#	Time	Action	Message
1	16:42:03	SELECT * FROM mydb.Admin LIMIT 0, 1000	1 row(s) returned
2	16:44:14	SELECT * FROM mydb.User LIMIT 0, 1000	514 row(s) returned
3	16:47:08	SELECT * FROM mydb.Messages LIMIT 0, 1000	9 row(s) returned
4	16:48:26	SELECT * FROM mydb.Posting LIMIT 0, 1000	58 row(s) returned

Schema: mydb

Post Table:

CSC648-TeamProject x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

mydb

- Tables
 - Admin
 - Category
 - favorites
 - Message_Handler
 - Messages
 - Posting
 - User
- Views
- Stored Procedures
- Functions

sys

Query 1 Messages - Table x

Table Name: Messages Schema: mydb

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
Mid	INT(11)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Mhid	INT(11)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
messagebody	VARCHAR(255)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
sender	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
timestamp	DATETIME(1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Column Name: Data Type: Charset/Collation: Default: Comments: Storage: ☐ Virtual ☐ Stored ☐ Primary Key ☐ Not Null ☐ Unique ☐ Binary ☐ Unsigned ☐ Zero Fill ☐ Auto Increment ☐ Generated

Columns Indexes Foreign Keys Triggers Partitioning Options

Apply Revert

Administration Schemas Information

Schema: mydb

Output

Action Output

#	Time	Action	Message
1	16:42:03	SELECT * FROM mydb.Admin LIMIT 0, 1000	1 row(s) returned
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4	16:48:26	SELECT * FROM mydb.Posting LIMIT 0, 1000	58 row(s) returned

Item Table:

CSC648-TeamProject x

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

Filter objects

mydb

- Tables
 - Admin
 - Category
 - favorites
 - Message_Handler
 - Messages
 - Posting
 - User
- Views
- Stored Procedures
- Functions
- sys

Query 1 Posting - Table x

Table Name: Posting Schema: mydb

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
postID	INT(11)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
email	VARCHAR(255)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
title	VARCHAR(255)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
description	VARCHAR(1024)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
date	DATETIME	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
price	DECIMAL(6,2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
category	VARCHAR(40)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
image	VARCHAR(255)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
approval	INT(11)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'0'

Column Name: Data Type: Charset/Collation: Default: Comments: Storage: ☐ Virtual ☐ Stored ☐ Primary Key ☐ Not Null ☐ Unique ☐ Binary ☐ Unsigned ☐ Zero Fill ☐ Auto Increment ☐ Generated

Columns Indexes Foreign Keys Triggers Partitioning Options

Administration Schemas Apply Revert

Information

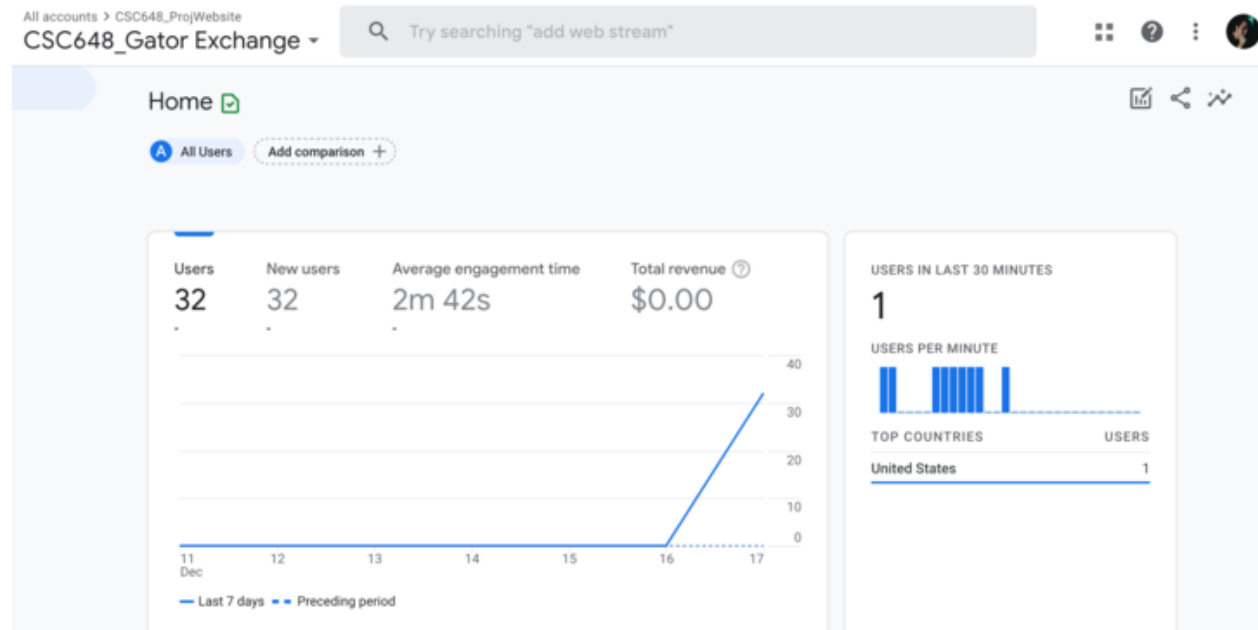
Schema: mydb

Output

Action Output

#	Time	Action	Message
1	16:42:03	SELECT * FROM mydb.Admin LIMIT 0, 1000	1 row(s) returned
2	16:44:14	SELECT * FROM mydb.User LIMIT 0, 1000	514 row(s) returned
3	16:47:08	SELECT * FROM mydb.Messages LIMIT 0, 1000	9 row(s) returned
4	16:48:26	SELECT * FROM mydb.Posting LIMIT 0, 1000	58 row(s) returned

6) Google analytics



7) Project management:

For our project management we have been using google doc.

Team Meeting

28 SEPTEMBER 2020 / 6:00pm / Zoom Host

Attendees

Naweeda Qeyam, Dang Nguyen, austin bernard, Josh Hansen, Manuel Hernandez, Marvin Thai

Agenda

Last Meeting Follow-up

1- Milestone 1 Revise

What needs to be changed:

Executive summary:

- Adding exclusively for SFSU students, faculty and staff.

Persona 1:

- Making sure for having permission to use images
- Adding SKILLS columns e.g. use of WWW, mobile, similar apps etc.
- Lazy registration is guest login?
- Need to mention that she then needs to message the seller, she fills out the message then she is prompted to register/log in before sending it.
- Omitting the joining study groups service

Persona 2:

- Need to add searching and buying items other than books.
- Personae 3 Use case: After filling out form then register/login.

Persona 3:

- Making it easy for all sellers....and by showing older age make letters bigger.

Persona 4:

- Goal also might be to manage some sites like yours?

Notes

- Finished revising the M1 documentation, I need to ask prof if he can still go over it.

Action Items

1. Confirm that multiple services other than tutoring are allowed to be sold.
 - Things can be free of sale but UI have messages between parties and not any payment UI, Craigslist is like that.
2. Validating SFSU email or SFSU ID.
3. Relating products to specific categories.

Meeting Agenda October 2

- Review M1
- Milestone 2 Overview-Due October 15:
More detailed design with UI mockups – mode details for data description, prioritize requirements; design high level UI mockups and storyboards; design high level DB organization.
- Vertical SW Prototype-Due October 22:
Develop the first simple bare-bones prototype (from DB to browser) to test the infrastructure, educate the team, resolve technical issues and also serve as the basis of further development (must ruin on the deployment server).

Notes:

- 1- Mockup Monday at 7
- 2- Database Organization Wednesday

Meeting Agenda Monday October 5

- UI Mockups & StoryBoards(Austin & Manuel)
- Planning to get done by Thursday

Meeting Agenda Monday October 5

- UI Mockups & StoryBoards(Austin & Manuel)
- Planning to get done by Thursday

Meeting Agenda Wednesday October 7

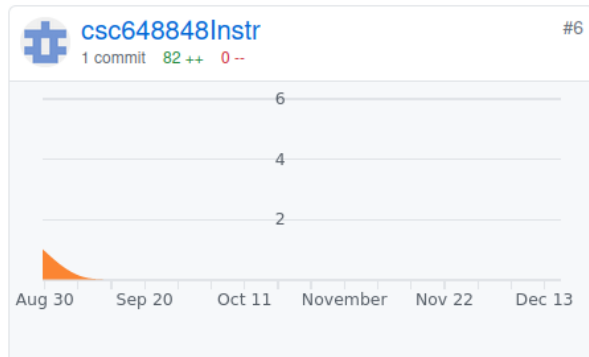
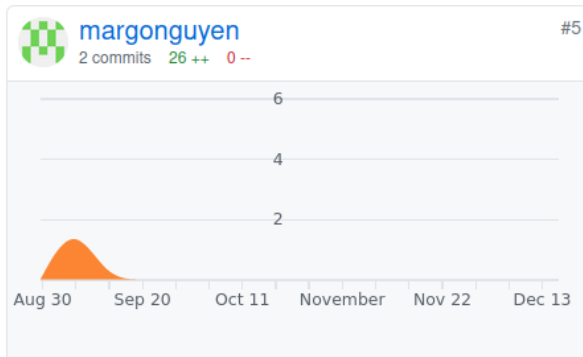
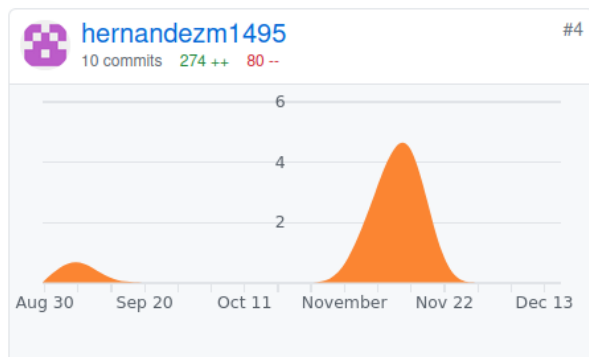
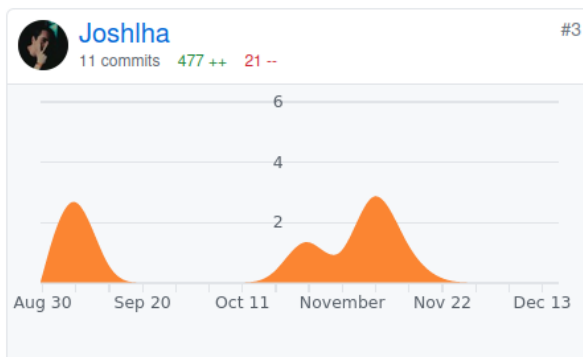
- High level Architecture, Database Organization(Marvin & Dang)
- Planning to get done by Friday

Meeting Agenda Friday October 29

1. M3 consists of 3 steps:

- Team meeting with Prof. Petkovic for the review(30 min) **Wednesday 11/18/20 1:00**
- Summarizing the review feedback and planning the final team project delivery.
- Following up CTO's remote review of SW architecture and Github.

Github Team Member's Commits Statistics



8) Team Member Contributions

Below is each team member's contribution and their commits.

Contribution by Naweeda(Team Lead)

NQ

Naweeda Qeyam

Tue 12/15/2020 7:37 PM

To: Austinbernard21@gmail.com <austinbernard21@gmail.com>; margonnguyen@gmail.com; josh1ha16@gmail.com; 1495hernandez.m@gmail.com; thaimarvin1@gmail.com

📧

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↷

→

...

Hi All,

As the team lead my contributions are:

- Assigned tasks to all team members with checkpoints.
- Kept track of every meetings and updates.
- Helped with code reviews.
- Implemented posting page.
- Helped with responsive UI navbar.
- Helped with GitHub and branches maintenance.

Project Challenges:

During our development process, we have come across some challenges. The biggest one was learning the framework that we were using for our application. It took us some time to do a research about Python Flask and to learn its functionalities and features. We solved this by helping each other.

Another significant challenge was how to assign tasks to members equally. We solved this by discussing the tasks during our weekly meetings and listing all the required missions in the google doc. Moreover, setting up checkpoints and due dates was the biggest help for delivering an efficient teamwork.

As the team lead, I believe we could do better next time based on what we learned in the class about SE management and process. We can make better and emphasized checkpoints for future teamwork. It is better to assign each team member the technical tasks they are good at. For instance, we can specify the team member who is good with python flask, another one who is good at bootstrap, another one who is good at debugging, and another one who is good at designing. This method will increase efficiency in teamwork and reduce time for code maintenance.

Best,
Naweeda

Number of commits made by Naweeda Qeyam: **13**

GitHub Username: **Naweeda**

Contribution by Marvin (Backend/GitHub Lead)

MT

marvin thai <thaimarvin1@gmail.com>
Tue 12/15/2020 8:09 PM
To: Naweeda Qeyam

👍 ↶ ↷ → …

Hi Everyone,

As
a Github/Backend member my contributions are:

- Help organize meeting notes/updates
- Helped with testing of website
- Implemented the Login page
- Implemented sessions
- Added search field validation
- Added Login/Registration field validation

Number of Commits: 15

One of the biggest challenges that I have faced during this project was learning how to connect the different pieces of the website. For example connecting the frontend website page to the backend. This was a huge challenge for me as I have never built an actual website and don't understand the tools that are used to do so. Luckily I overcame this problem by doing research on how each tool worked and a group of team members helping figure out the problem.

Something that I can do better based on what was learned during the course of this class is helping out other teammates with their tasks when needed. Because I did not have the full knowledge of the tools being used, I wasn't able to fully help my teammates and could only help them to a certain extent.

Thank
you,
Marvin
Thai

Number of commits made by Marvin Thai: **15**

GitHub Username: **mathai1**

Contribution by Austin (Front end Lead)

AB

Austin Bernard <austinbernard21@gmail.com>
Thu 12/17/2020 8:02 PM
To: Naweeda Qeyam
Cc: margonnguyen@gmail.com; josh1ha16@gmail.com; 1495hernandez.m@gmail.com; thaimarvin1@gmail.com

👍 ↶ ↷ → …

Hi All,

As the front end lead my contributions are:

- Come up with overall structure of UI
- Familiarize myself with all frontend software being used in the project
- QA and usability testing
- Technical support on connecting backend to frontend
- Making sure all pages are consistent with each other
- Technical support on how to use flask templating and Bootstrap

Number of commits: 13

Project Challenges:

The beginning of the project was difficult to get used to working with git in a team setting as well as getting everybody's environment set up. The basic functions were not too difficult but getting front end pages to look exactly how you want was difficult for me so I did what I could. I also don't have design experience so as front end lead I could only take charge of the actual layout and usability, rather than the design aspect, which is why the site looks fairly basic.


If I were to do this project again, I would ask for more input on general design beforehand and also, I would maybe code all the general html page layouts beforehand to keep all pages consistent and this would make it much easier for the rest of the team to work on functionality inside the pages and understand how the code works, as I only supplied a base html that provides a navbar but nothing else. This resulted in a few inconsistencies in the format of the pages which needed to be fixed later on.

Best,
Austin Bernard

Number of commits made by Austin Bernard: **13**

Github Username: **austinbernard21**

Contribution by Josh (Github lead)

 Josh H <joshlha16@gmail.com>
Thu 12/17/2020 6:37 PM
To: marvin thai <thaimarvin1@gmail.com>
Cc: Naweeda Qeyam; Austinbernard21@gmail.com <austinbernard21@gmail.com>; margonnguyen@gmail.com; 1495hernandez.m@gmail.com

Hello,

My role in the team was as the Github lead. This role gave me several responsibilities:

- Establish a consistent set of rules for branches, commits, and merging.
- Ensure team members complied with the git standards that we set
- Assist the team lead in outlining plans of action, keeping the project moving forward, and helping to ensure the work is evenly, and cleanly distributed.
- Created UI design for the User Dashboard
- Writing the summaries and editing the documents for the milestones
- Assist the team with git issues including merging, .gitignore, etc.

Number of Commits: 11

Overall, a big challenge for me was in finding the time to learn the missing pieces of information I needed to actually start coding, and piece the time together with my other classes. This class forced me to maintain good time management skills in order to keep up-to-speed on my work.

The main thing that I feel I should improve on is ensuring that my team follows the established git guidelines more strictly. Seeing as that was my main role in the group, I noticed that not everyone was correctly naming branches per the guideline document that I wrote. Luckily, this didn't become a huge issue in productivity because we ensured that everyone's share of work was clear and organized. I know that in a professional environment working for a real company, this wouldn't have been acceptable (even if productivity was not affected).


Cheers, '

Joshua Hansen

Number of commits made by Josh Hansen: **11**

Github Username: **Josh Hansen**

Contribution by Manuel (Front end team member)

 Manuel Hernandez <1495hernandez.m@gmail.com>
Fri 12/18/2020 1:34 AM
To: Dang Nguyen <margonnguyen@gmail.com>
Cc: Austin Bernard <austinbernard21@gmail.com>; Naweeda Qeyam; joshlha16@gmail.com; thaimarvin1@gmail.com

Hi Everyone,

As a front end team member my contributions were:

- Assisting with implementation of the homepage
- Assisting with the implementation of the search results page
- Designing the site's product cards
- Assisting with overall design of the site's frontend
- Testing of the site's functionality

Number of commits: 20

The most significant challenge I faced while participating in this project had to do with the overall structure and the programming languages used. Before this project I had no experience developing a flask application, as well as little experience using python. Although my role in this project had more to do with front end development, I still needed to have at least a basic understanding of how the backend worked as well as some understanding of the features offered by our chosen framework.

Based on my experience with this project and the lectures given throughout the course, an area I would do better on next time would be communication. There were a few instances throughout the semester where I was unsure of the work I was doing but continued on instead of communicating with my team. I now have a better understanding of how this can lead to an inefficient use of time which can amount to extra work being done and can possibly be frustrating for everyone involved.

Best wishes,

Manuel Hernandez

Number of commits made by Manual Hernandez: **20**

Github Username: **mhernandez29**

Contribution by Dang (Backend Lead)



Dang Nguyen <margonnguyen@gmail.com>

Thu 12/17/2020 10:44 PM

To: Austin Bernard <austinbernard21@gmail.com>

Cc: Naweeda Qeyam; joshlha16@gmail.com; 1495hernandez.m@gmail.com; thaimarvin1@gmail.com



Hi everyone,

My role team is backend lead. My responsibilities are:

- Designing and Maintaining database
- Design flask file structure that fits MVC model
- Assist and help team when they have any errors relating backend
- Implementing the message system , dashboard
- Creating UI for registration
- Implementing the flask middleware , and set up connection from database to backend
- Encrypting password, sanitizing data and ensuring if there is any security error
- Maintaining team code to make it clean and easily maintainable
- Configuration the AWS server with nginx,unicorn
- QA testing
- Setting up team environment in the beginning of the project

Number of commit : 57

Project challenges:

I think in this project, it is a big scope of learning deployment configuration and designing either database or backend architecture. However, I am able to break it down all these concepts at some point. Some other challenge is when the team is trying to merge all the branch, we kinda have lots of conflicts

If I do the project again, I will improve the architecture like caching so the website is going to load faster. I also want to do more proper testing plan with tool so it is going to be continuous testing the website when there is any new commit

Dang Nguyen

Number of commits made by Dang Nguyen: **57**

Github Username: **margonguyen**