

## **EE/CprE/SE 491 WEEKLY REPORT 3**

**10/7 - 10/14**

**Group number: sdmay26-27**

**Project title: MYSTEM Growth Survey Tool**

**Client & Advisor: Dr. Diane Rover**

### **Team Members/Role:**

**Nina Gadelha:** Cybersecurity Developer/Pentesting

**Caleb Hemmestad:** Backend/Cloud

**Ethan Buenting:** Backend/Cloud

**Ethan Van Caster:** Developer/Client Contact

**Sam Craft:** Developer/Tester

**Ryan Mamrot:** Developer/Tester

### ○ **Weekly Summary**

- Met with Client/Advisor
- Completed Design Document part 2
- Created and claimed issues on git using issue board
- Started working on features (via git issue board)
- Started migrating from AWS to DigitalOcean

### ○ **Past week accomplishments**

#### ● **Nina Gadelha**

- Implemented change user info (backend/frontend; works on localhost)
- Implemented 'bcrypt' to hash passwords that user changes (+salt)
- Added authentication check when changing account information
- Added issues to GitLab
- Tested more security vulnerabilities

#### ● **Sam Craft**

- Read through CI/CD documentation
- Looked at current CI/CD script for project
- Started developing plan for new CI/CD script with Digital Ocean

#### ● **Caleb Hemmestad**

- Updated the website and made it look better
- Added issues and milestones to GitLab

- Worked on Digital Ocean migration
- Added a Readme to the repository
- Worked on a mobile app prototype
- Made diagrams for the design document and repo
- **Ryan Mamrot**
  - Worked on understanding how the conversion to Digital Ocean affected the current code
  - Started reviewing changes for scaling based on devices
  - Reviewed the frontend code for future changes
- **Ethan Buenting**
  - Reduced resource utilization within the AWS cloud hosting for cost efficiency purposes
    - Reduced both frontend and backend to the recommended 0.25 CPU and 512 Mb of Ram, relaunched both instances with these resources.
  - Contacted ETG to start the process of acquiring a Digital Ocean account, awaiting further steps
  - Created IAM user in the AWS for group members who requested it
  - Experimenting with S3 storage equivalent within Digital Ocean
  - Working on downtime schedule for the application to ensure smooth transition and minimal downtime once we acquire access to Digital Ocean hosting
- **Ethan Van Caster**
  - Learned how to have react change page structure for small screens like mobile screens
  - Identified which pages need to have different elements for small screens
  - Reviewed other sites like qualtrics to plan what we want small screens to behave like
- **Pending issues**
  - No pending issues

○ **Individual contributions**

NAME	Individual Contributions	Hours this week	HOURS cumulative
Nina Gadelha	<ul style="list-style-type: none"> <li>● Change user info feature (frontend and backend)</li> <li>● Basic authentication check for change user info feature</li> <li>● Hash + salt changed passwords</li> <li>● Starting delete user feature</li> </ul>	6	16

	(frontend and backend)		
Sam Craft	<ul style="list-style-type: none"> <li>● Read Digital Ocean documentation</li> <li>● Learned about current CI/CD practices</li> <li>● Started CI/CD planning</li> </ul>	5	14
Caleb Hemmestad	<ul style="list-style-type: none"> <li>● Updated project website</li> <li>● Added issues and milestones</li> <li>● Added readme</li> <li>● Created diagrams</li> <li>● Created mobile prototype</li> </ul>	6	17
Ryan Mamrot	<ul style="list-style-type: none"> <li>● Studied Digital Ocean impact</li> <li>● Adjusted scaling by device</li> <li>● Reviewed fronted for updates</li> </ul>	6	15
Ethan Buenting	<ul style="list-style-type: none"> <li>● Cost efficiency measures for AWS</li> <li>● Added users to IAM</li> <li>● Communication with ETG for Digital Ocean purposes</li> <li>● Scheduling downtime procedure</li> </ul>	8	18
Ethan Van Caster	<ul style="list-style-type: none"> <li>● Identified which pages need to have different elements for small screens</li> <li>●</li> </ul>	3	12

○ **Plans for the upcoming week**

- Nina Gadelha
  - Continue implementation of delete user info

- Ensure features work on main site (not just localhost)
- Test more security vulnerabilities
- Rework design website pages to discuss at next meeting
- Make users list with functionality to present at next meeting
- Sam Craft
  - Continue writing baseline CI/CD script
  - Look into new tool to build frontend/backend (current tool is no longer maintained)
  - Start looking at instance specific CI/CD issues when instance created in Digital Ocean
- Caleb Hemmestad
  - Continue working on the Digital Ocean transition
  - Continue working on mobile support
  - Work on hashing the current passwords
  - Work on protecting vulnerable endpoints
  - Work on implementing tokens and cookies
- Ryan Mamrot
  - Look in to other survey systems can be implemented into the web app
  - Identify what changes can be made if survey systems cannot be implemented
  - Continue reviewing frontend code.
- Ethan Buenting
  - (Hopefully) Get Digital Ocean account access
  - Dump a copy of the AWS databases to local device
  - Work and CI/CD tunnel from Gitlab to Digital Ocean
  - Upload database to Digital Ocean and adjust [Node.js](#) calls
  - Change URL hosting to Digital Ocean for full transition
- Ethan Van Caster
  - See is/how qualtrics can be embedded in site to replace survey
  - Identify if qualtrics is worth using in site or to stay with current implementation

#### ○ **Summary of weekly advisor meeting**

We talked about the current status of our cloud migration from AWS to Digital Ocean. Ethan was able to get in touch with ETG about the migration and is just waiting for a response back. Once he gets that, the migration process will officially begin. One of the main topics we discussed was the improvement of the survey. We talked about little things to be improved on (saving survey progress and basic format changes), but the main topic was the possible integration of Qualtrics into the website. We are planning on conducting some research and weighing the pros and cons. Caleb showed Dr. Rover and Yiqi an idea for the mobile view (via an app demo) and got some positive feedback. Nina is going to create a user's permissions/access list to ensure we are on the same page regarding what the specific roles can do.