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**Team 12 - Sprint 1 Retrospective Document**

**Adam Kogut, Arvindh Swami, Darwin Vaz, Hiten Rathod, Kunal Sinha**

## What went well?

In Sprint 1 we were able to establish important backend elements correctly and get the login and register interfaces working. The database was correctly implemented and the server-database connections worked flawlessly. Also the user interface for registration is implemented and looks good. While we were very slow at the beginning as we learned Javascript and its relevant frameworks, the workflow began to progress much more quickly by the third week.

#### The following user stories were completed:

2. As a company, I would like to be able to keep a master list of invited interns.

This user story was completed according to the acceptance criteria because employees were able to see the updated list of invited interns. The server checked for the correct authority before sending the master-list. The UI displayed them in a nice and orderly fashion, but will be improved in the second sprint.

5. As an intern, I would like to create my profile with relevant information about myself.

This user story was completed according to the acceptance criteria because we created a list of preferences to be included in the preferences form. Interns were then able to fill out this form and add their own bio when creating their profile.

6. As an intern, I would like to be able to sign up for Pair using the email invite link.

This user story was completed according to the acceptance criteria as when the intern clicked on the registration link and filled out their details, the database was correctly storing their information. The server correctly took all of those details and sent them to the database where they were correctly stored.

8. As an intern, I would like to delete my account.

This user story was completed according to the acceptance criteria, as when the intern clicked delete account, all their information was deleted from the database. The server checked for user ID, found their idea and deleted, and then verified it was deleted.

9. As an intern, I would like to chose the number of roommates I would like to live with.

This user story was completed according to the acceptance criteria because interns were able to select the number of roommates they want to live with on the roommate preferences page. The server checked for their ID, verified if they were intern, and then set it correctly.

10. As an intern, I would like to have a choice to upload a profile picture.

This user story was completed according to the acceptance criteria because interns were able to upload a profile picture on the profile page. This image was then uploaded to firebase and is retrieved and displayed on the intern profile page.

11. As an intern, I would like to include links to other social media sites like Twitter and Facebook.

This user story was completed according to the acceptance criteria because interns were able to add their social media links and view them on their profile page. The database stores it and sends it back to the frontend correctly.

12. As an intern, I would like to include my preferences for an apartment.

This user story was considered a success according to the acceptance criteria as the preference page took the correct input and stored them in the correct fields in the database.

13. As a company, I would like to be able to create a moderator account for company moderators.

This user story was completed according to the acceptance criteria because when an employee registers

with the appropriate registration PIN, their account was created with moderator status. Moderators

have the appropriate privileges when they login such as being able to view the master list of invited interns on their profile page.

## What did not go well?

One issue with this sprint, was that we underestimated how much work certain user stories would take to be implemented and as a result, the last week ended with certain user stories uncompleted. The main issue was our communication as teammates. Key elements such as keys in JSON responses from the server were different in both the frontend and backend, and there was much confusion over the routes requested by the frontend versus what the backend thought was required. Moreover, there was miscommunication over the implementation side of certain user stories that needed to be discussed in depth. Other issues included difficulty using new languages, which significantly slowed the first 2 weeks. For example, there was a very large learning curve for GoLang, which led us to switch to NodeJS for the server halfway through the sprint. We also did not use Git as much as we should have to user version control.

#### The following user stories were partially completed:

1. As a company, I would like to be able to send an email invite link to an intern

This was mostly completed as according to the acceptance criteria. In demo, because of server receiving null for the location parameter which caused the server to fail which blocked the email from sending.

4. As a user, I would like to be able to reset my password if I forget it.

This was partially completed as an intern could reset their password using the link that they were given originally to sign up but the employees could not reset their password and there was no actual link on any page that took them to a password reset page.

7. As an intern, I would like to login and update my profile settings.

This user story was mostly completed according to the acceptance criteria. Interns were able to login, access the profile page, and view their current profile settings. However, interns were not able to update their profile settings.

#### The following user stories were not completed:

3. As a company, I would like to be able to create a general company profile.

This was because we decided not to implement a general company profile and instead give the power of changing the company to the employees.

## How should you improve?

* Add another person to help with the frontend development
  + Currently the entire load of the frontend is on one person, which meant that one person had too much work to complete. However, because the implementation of the database was completed much faster, we can move one person from the database to work on the frontend.
* Improve communication
  + We should have more meetings to discuss the way in which certain user stories are implemented across the entire stack. We also decided to create a document that contains all function declarations, expected return values, and routes so that the frontend-server communication, so that communication will be easier. This will also help detail error codes and smaller things that will be needed in the long run.
* Revise user stories
  + Certain user stories are very similar and can be combined into one user story. Moreover, there are certain features that may be needed, and we may need to add them to user stories.
* Incremental development
  + We need to ‘grow - not build’. Instead of implementing functions in the first two weeks, and testing it in the third, we should test as we go. As soon as we have a function ready, we should test if the front end sends the request properly, check if the server receives the correct request and queries the database, check that the database returns the correct value without modifying other components, check that the server correctly parses the returned value, check that the front end receives the correct value, and make sure that the info is printed on the website correctly. Once that works, we can continued working on the next function.
* Testing suite
  + During this sprint, we tested the database by running a script with multiple functions, and then looking at the database and making sure it seemed right. This is not a reliable way to test the database, and as the database gets bigger and bigger, it would get harder and could lead to inaccuracies. Along with the script, we should write another script that uses a diff tool and matches the actual output with the expected output. We also need to add frontend - server testing.