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**Team 31 –Sprint 1 Retrospective**

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What went well?

**General :**

The initial phase of the sprint went quite well for the team as the meetings were really productive. Each and every team member put forth their ideas. To start with, the setup was done for Heroku and React. The backend team had implemented most of the initial tasks that were required to get a headstart. These tasks were put through the testing phase and the results were satisfying. On the other hand, the Frontend team had developed the initial User Interface for Carnet which comprised of login, forgot password, dashboard, landing page and create an account. Lastly, all the User Interfaces were tested on multiple devices (iOS, Android and Web).

**User​ ​Story​ ​1:**

As a user, I would like to be able to register for a Carnet account.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Create​ a ​User​ ​model​ ​in​ Backend | 2 | Siddharth |
| 2 | Create​ ​User​ ​tables​ ​in​ ​Database | 2 | Sripath |
| 3 | Create​ ​a​ ​signup​ ​page​​ ​to​ ​insert​ ​a new​ ​user​ ​into​ ​the​ ​system | 3 | Shivangi |
| 4 | Tie​ ​the​ ​three​ ​above​ ​components together​ ​to​ ​complete​ ​user​ ​signup process​ ​(frontend​ ​to​ the ​backend​ ​to​ ​DB) | 3 | Shivangi and Sripath |
| 5 | Unit​ ​test-​ ​correct​ ​and​ ​incorrect​ ​input | 3 | Pooja |

**Completed:** All the parts of this user story was completed in a swift manner. Due to informative and engaging meetings the team was able to quickly write up the code both for the front and the backend. Rigorous testing was done both by using unit test cases and integration test cases in the backend. Frontend manual testing was also done by the team.

**User​ ​Story​ ​2:**

As a user, I would like to be able to log in and manage my Carnet account.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Create​ ​a login page | 3 | Shivangi |
| 2 | Integrate a Bcrypt authentication process | 2 | Sripath |
| 3 | Encrypt​ ​the​ ​password​ ​(highly​ ​sensitive information)​ ​before​ ​any​ ​transfers​ ​occur | 3 | Sripath |
| 5 | Unit​ ​Test​ ​-​ ​correct​ ​and​ ​incorrect​ ​input, unknown​ ​email,​ ​incorrect​ ​password attempt​ ​limits | 3 | Pooja |

**Completed:** All the individual components for the backend and the frontend were complete. On the frontend, the token handling was not implemented. Some bugs had to be weeded out but it was almost complete except the fourth step. Unit testing and integration testing was done on the backend as well.

**User​ ​Story​ ​3:**

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

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Set up a password reset page | 3 | Shivangi |
| 2 | Create a password reset function in the backend | 3 | Siddharth |
| 4 | Update the database on the backend | 3 | Pooja |
| 5 | Unit​ ​Test​ ​-​ ​correct​ ​and​ ​incorrect​ ​input | 3 | Pooja |

**Completed**: The two backend routes along with the frontend design was complete. Only getting them together was not complete. Rigorous testing was done by the team to ensure the output of the quality code. All edge cases were taken into account and were resolved. All invalid values and requests were made to ensure the security of the API.

**User​ ​Story​ ​6:**

As a user, I would like to be able to easily access Carnet across all of my web-enabled devices.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Set up Carnet frontend using react | 3 | Shivangi |
| 2 | Testing over multiple web browser in different screen sizes. | 2 | Pooja |

**Completed:** From the start, the team’s goal was to provide easy accessibility for note taking. After extensive research, the team decided to choose React. The react frontend was made and the GitHub repository was set. After each frontend page design, the pages were checked in the varying screen sizes for consistency.

**User​ ​Story​ ​29:**

As a user, I would like to have a way to connect to the developers for providing feedback

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Create contact us page | 3 | Shivangi |
| 2 | Backend of feedback | 2 | Sripath |
| 3 | Create Database model of feedback | 3 | Shivangi |
| 4 | Testing (unit and integration) | 2 | Siddharth |

**Completed:** Individual frontend and backend were created. Unit and integration testing were created for the backend and the database requirements were complete. An anonymous feedback place was created and the user was not required to log in to give feedback to ensure anonymity. A table was created which will be manually cleaned by reading each feedback.

**User​ ​Story​ ​30:**

As a Software Developer, I would like to have a continuous development and continuous integration pipeline.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Create a CircleCI account. | 2 | Sripath |
| 2 | Create a hook for the Github repository. | 2 | Sripath |
| 3 | Create, update and add necessary files for CircleCI (like config.yml) | 3 | Siddharth |
| 4 | Create, update and add necessary files for Heroku (like config.yml) | 3 | Siddharth |
| 5 | Test the CI/CD pipeline | 3 | Pooja |

**Completed:** The team’s supported the thought of setting up the best tools for a fast development of the API and the frontend. After some research over best tools, the GitHub repository along with CircleCI was built and implemented. Investing a small amount of time for setup allowed the team to save time by checking the circle CI to ensure no previous code was broken and allowed faster processing of the PR’s.

**User​ ​Story​ ​31:**

As a Software Developer, I would like to have a Docker container for local testing.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Download docker. | 2 | Shivangi |
| 2 | Set up the Postgres and API containers through docker-compose.yml. | 2 | Sripath |
| 3 | Set up Dockerfile and link the two containers. | 3 | Sripath |
| 4 | Make other changes in API to integrate Docker. | 3 | Shivangi |
| 5 | Test Docker and push the new code. | 3 | Pooja |

**Completed:** The team knew about the problems of having different local systems and the waste of time to install all the dependencies before starting to write actual code. This led to the team deciding integration of Docker into the backend for the faster development process. The docker was set up and tested in all the local system available to us. It also gave any developer to add new dependencies without worrying about having them installed in other local systems.

What did not go well?

**General:**

There was a lot of miscommunication and lack of coordination at the end of the of the sprint which cost us a lot of points during the sprint review. Some members of the team were not available due to other commitments and hence could not communicate about their absence on time. As a result, we were not able to complete a few user stories because of the same.

**User​ ​Story​ ​2:**

As a user, I would like to be able to log in and manage my Carnet account.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 4 | Create​ ​and​ ​manage​ ​a​ ​user’s​ ​session | 3 | Siddharth |

**Not Completed:** Cookie implementation on the front end was not complete. Due to this complete user session was not managed. There was a bug in the Heroku instance (missing environment variable) which made that backend route broken and was not fixed within time.

**User​ ​Story​ ​3:**

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

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 3 | Allow the user to change the password on the frontend | 3 | Siddharth |

**Not Completed:** The linking between the frontend UI and the backend was not complete due to this the user was unable to change his/her password. Due to this task was not complete. About 20 minutes worth of code was left before the review.

**User​ ​Story​ ​4:**

As a user, I would like to be able to easily navigate to a personal Notebook.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Selecting the desired notebook to open | 2 | Siddharth |
| 2 | Fetching data from the database | 2 | Siddharth |
| 3 | Projecting notes on the screen | 3 | Siddharth |
| 4 | Testing and Quality Assurance. | 2 | Sripath |

**Not Completed:** The entire user story has not been implemented as the team could not meet for a few meetings due to other commitments. The User Interface was not ready and neither was the database structure, due to which the user story was not functional at all. Unit testing and Quality assurance can happen when the initial part is ready, but since it wasn’t ready we could not test the implementation.

**User​ ​Story​ ​7:**

As a user, I would like to be able to create new notebooks.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Create​ a new notebook​ ​in​ the ​database | 2 | Sripath |
| 2 | Create​ ​notebook​ ​model in the backend | 2 | Sripath |
| 3 | Allow the logged in user to be able to access the new notebook | 3 | Sripath |
| 4 | Create the UI for a new notebook | 4 | Siddharth |
| 5 | Save the changes in the database | 2 | Sripath |
| 6 | Testing (unit and integration) | 2 | Shivangi |

**Not Completed:** The entire user story has not been implemented as the team could not meet for a few meetings due to other commitments. The User Interface was not ready and neither was the database structure, due to which the user story was not functional at all. Unit testing and Quality assurance can happen when the initial part is ready, but since it wasn’t ready we could not test the implementation.

**User​ ​Story​ ​8:**

As a user, I would like to be able to create new pages in any notebook.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Create a new page in the database | 2 | Shivangi |
| 2 | Create the new page model in the database | 2 | Pooja |
| 3 | Allow the user to be able to create and access the new page in a notebook | 3 | Shivangi |
| 4 | Create the UI for the new page | 3 | Pooja |
| 5 | Unit​ ​test-​ ​correct​ ​and​ ​incorrect​ ​input, the user is authenticated | 3 | Pooja |

**Not Completed**: The entire user story has not been implemented as the team could not meet for a few meetings due to other commitments. The User Interface was not ready and neither was the database structure, due to which the user story was not functional at all. Unit testing and Quality assurance can happen when the initial part is ready, but since it wasn’t ready we could not test the implementation.



**User Story 24:**

As a user, I would like to be able to make my notebooks private.

Task​ ​Table:

|  |  |  |  |
| --- | --- | --- | --- |
| Task​ ​Number | Description | Time | Task​ ​Owner |
| 1 | Create UI for making private/ public | 3 | Siddharth |
| 2 | Backend for private/ public | 2 | Sripath |
| 3 | Create Database model for private/public | 3 | Pooja |
| 4 | Unit Test: Input testing | 2 | Pooja |

**Not Completed:** The entire user story has not been implemented as the team could not meet for a few meetings due to other commitments. The User Interface was not ready and neither was the database structure, due to which the user story was not functional at all. Unit testing and Quality assurance can happen when the initial part is ready, but since it wasn’t ready we could not test the implementation.

How can we improve?

As a team, we need to break the ice so that every team member feels comfortable. The team needs to evaluate what went wrong and come up with better ideas. Lack of clarity and miscommunication is what cost us in the previous sprint. We need to work towards that as a team and be updated with each and every detail so that we do not repeat the same mistakes that we did in the previous sprint.

We also faced the issue of one of our team members, Zachary Moore, abruptly leaving the team without informing any of the team members that he was doing so. Each and every member of our team was assigned a specific task for the Product Backlog and so was he. Since this was a team effort, we expected everyone to finish the assigned task before the deadline. However, Zachary did not complete his part, nor did he keep us in the loop that he would be dropping the course. Consequently, we lost some points on the document. However, this was a mistake on our part as well. We should have checked if everything was complete and fulfilling all the needs of the grading rubrics before submitting the document on Blackboard.

Procrastination was another issue that took a toll on our team. The backend team was way ahead of the frontend at almost any point since the beginning of the project. At some point, it seemed as though the backend team was the only working sub-team in our group. This needs to be addressed in our next team meeting and we, as a team, must ensure that both backend and frontend work parallel to each other.

In addition, our time management skills were poor. Career fair took a significant amount of time which could have been spent on development. Moreover, our inability to cope with the course load also affected us in a negative way. As a team, we need to be wary of that and ensure that we manage our time more effectively and achieve our desired goals for the week.

Lastly, some of our team meetings lacked seriousness. Team members often joked around and showed lack of seriousness. Although this issue was brought up, nothing was actually done in this regard. We will have to be more serious and meet often so that we can review previous goals and discuss how we can improve further. In the same vein, we need to set goals for the mid/long-term on the project. This idea seems obvious but sometimes gets lost in everyday tasks.