

Sprint Report Front End

10004, 10035,10061

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1 Sprint 1 - Week 6-7

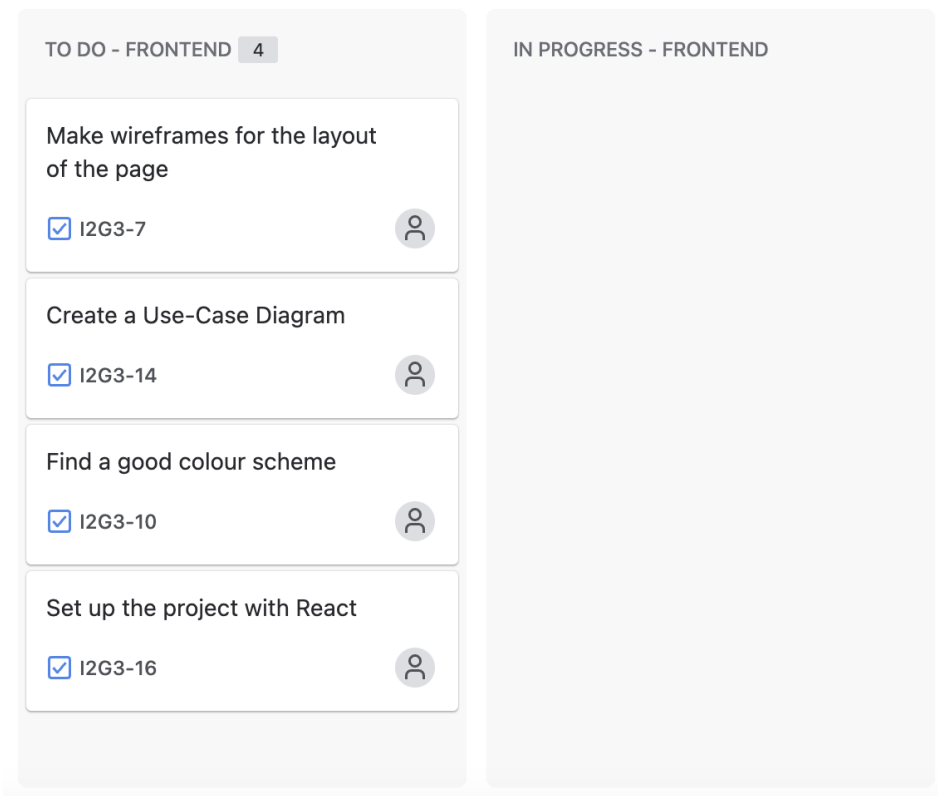


Figure 1: Sprint 1

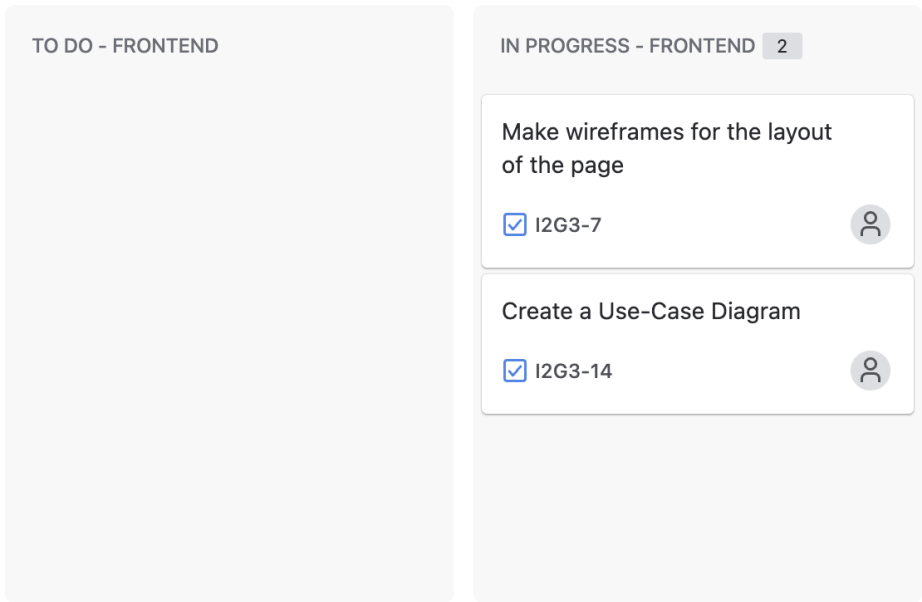


Figure 2: Sprint 1 - second week

1.1 Sprint goal

For sprint 1, the goal was to make a good foundation for the project. To do this we started with the basics by creating wireframes and a Use-Case diagram for the webpage. By having this done, we had something to base our webpage on and a clear path ahead of how to style and set up our webpage.

1.2 Work and assignments

- 10004: Created the Use-Case diagram.
- 10035: Helped the group as necessary.
- 10061: Started the setup of the project using vite as a build tool and Yarn as a package manager, initialized react. Added colors, started to create first react components and styling. Added the home page and started creating a search form with various buttons and inputs, looked for a great date picker solution.

Everyone in the group contributed to pick a color scheme and create the wireframes. After 10004 had created the Use-Case diagram, we discussed it as a group to give feedback and improve it where it was necessary.

1.3 Accomplishments

During this sprint, we laid a strong foundation for the project. We successfully created initial wireframes that outline the structure and layout of the website, giving us a clear visual direction moving forward. These wireframes will continue to evolve as new functionality is implemented.

We also developed a Use-Case diagram to identify and visualize key interactions within the system. After reviewing it as a group and incorporating feedback from the teacher, we identified some adjustments that will be made in Sprint 2.

The project setup was completed using React as the build tool and Yarn as the package manager. We initialized the React project, created the basic folder structure, added styling, and implemented the homepage with an initial version of the flight search form.

In terms of design strategy, we agreed to follow the Atomic Design Methodology by Brad Frost. This approach will help ensure consistency and scalability throughout the development of our UI components.

Overall, the sprint goal of establishing solid base for the project was fully achieved, and we are well-prepared to move forward with development in Sprint 2.

2 Sprint 2 - Week 8-9

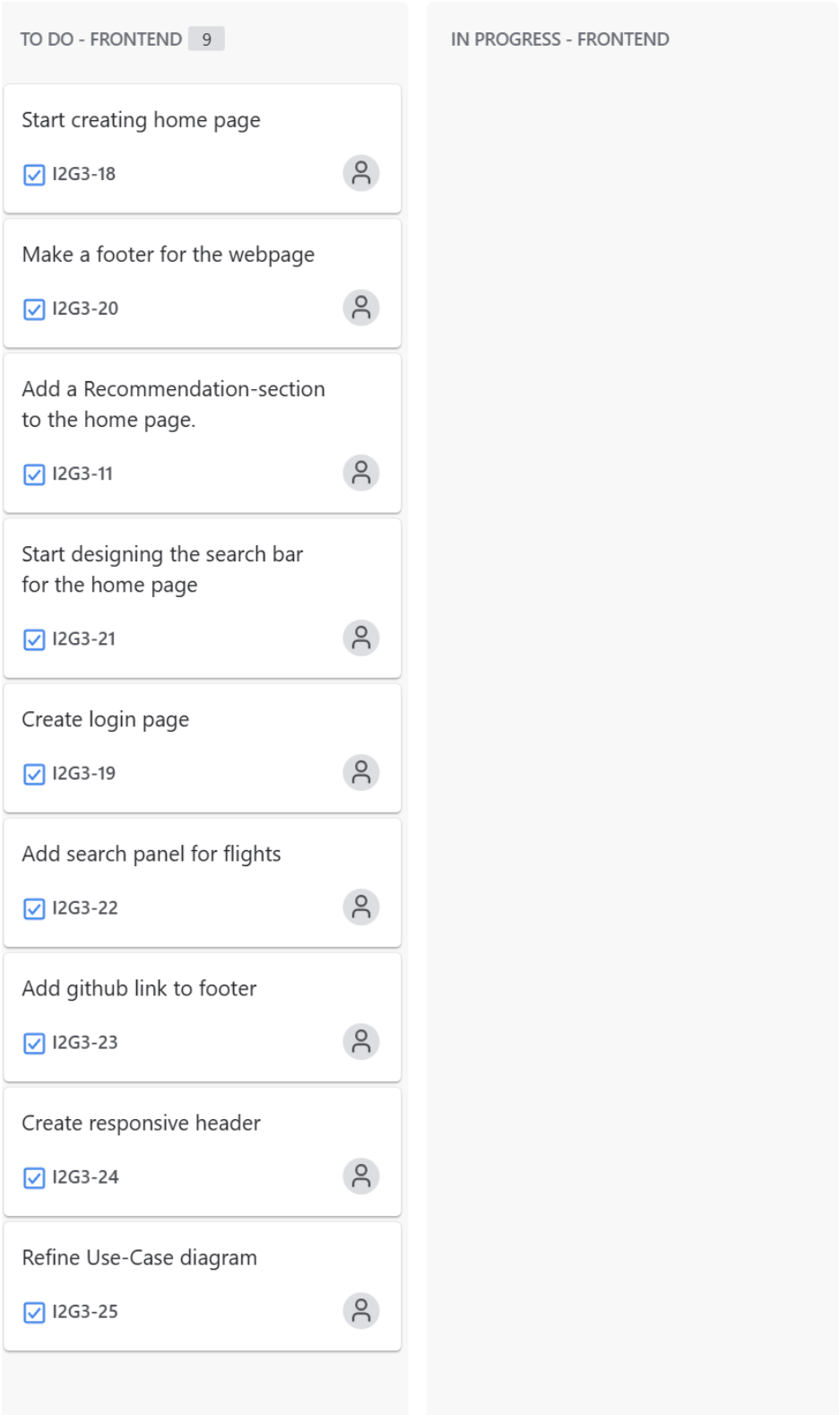


Figure 3: Sprint 2

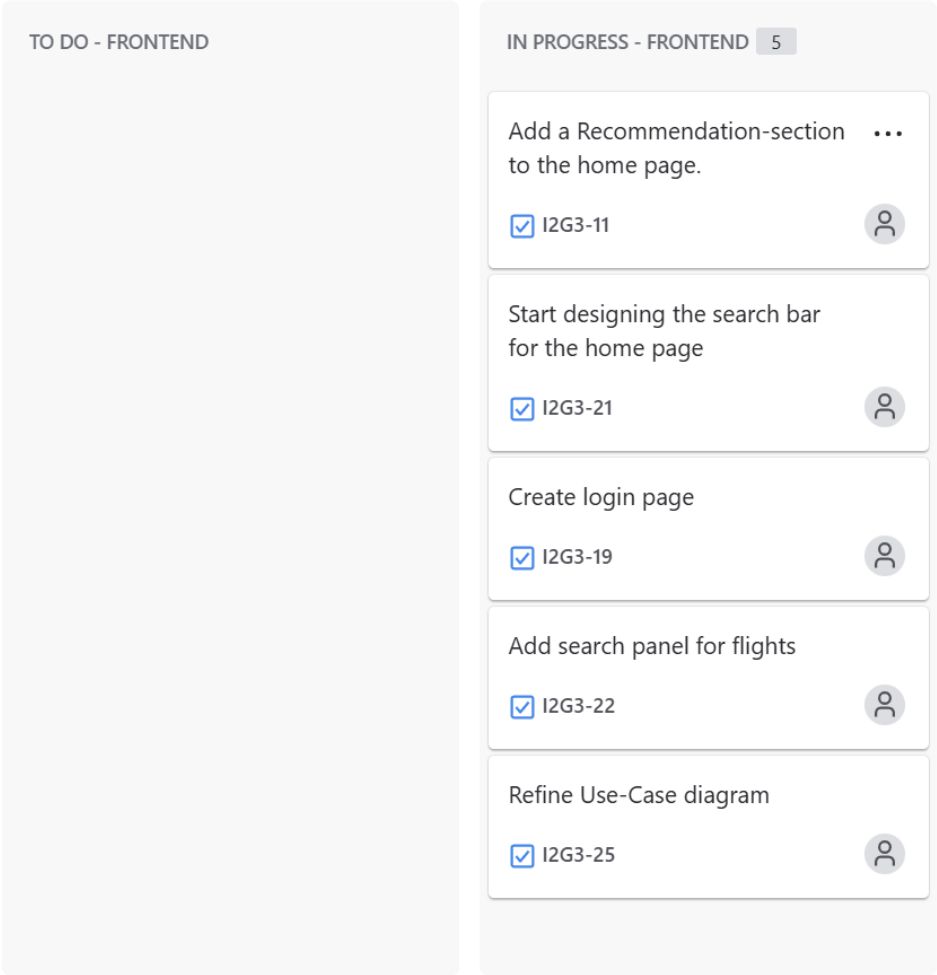


Figure 4: Sprint 2 - second week

2.1 Sprint goal

The goal of the second sprint is to establish a simple structure for our website and to start creating our home page. This includes creating a header, footer, and starting to create a search panel and a recommendation section. We also want to create an early version of a login page.

2.2 Work and assignments

- 10004: Refined the Use-Case diagram and added an "About us" page.
- 10035: Created the footer and added the recommendation section with cards.
- 10061: Created the header, search panel, and added a simple login page.

Everyone participated in group activities and gave each other feedback in order to learn and improve our skills.

2.3 Accomplishments

In this sprint, we achieved all of our planned goals and made additional progress beyond the initial scope. We successfully established the basic structure of the website, including a functional header and footer, which now serve as the foundation for consistent navigation across pages.

The search panel and recommendation section were implemented, with flight suggestions displayed using styled vards to enhance visual engagement. An initial version of the login page was also created, laying the groundwork for user authentication.

In addition, we decided during the sprint to include an "About Us" page, which was also completed. Once the core elements were in place, we used the remaining time to refine the visual design and improve the responsiveness of components to ensure the layout worked smoothly across different screen sizes.

The group collaborated closely throughout the sprint, providing feedback to one another and continuously learning from the process. Overall, Sprint 2 was a success in terms of both feature delivery and design progression

3 Sprint 3 - Week 10-11

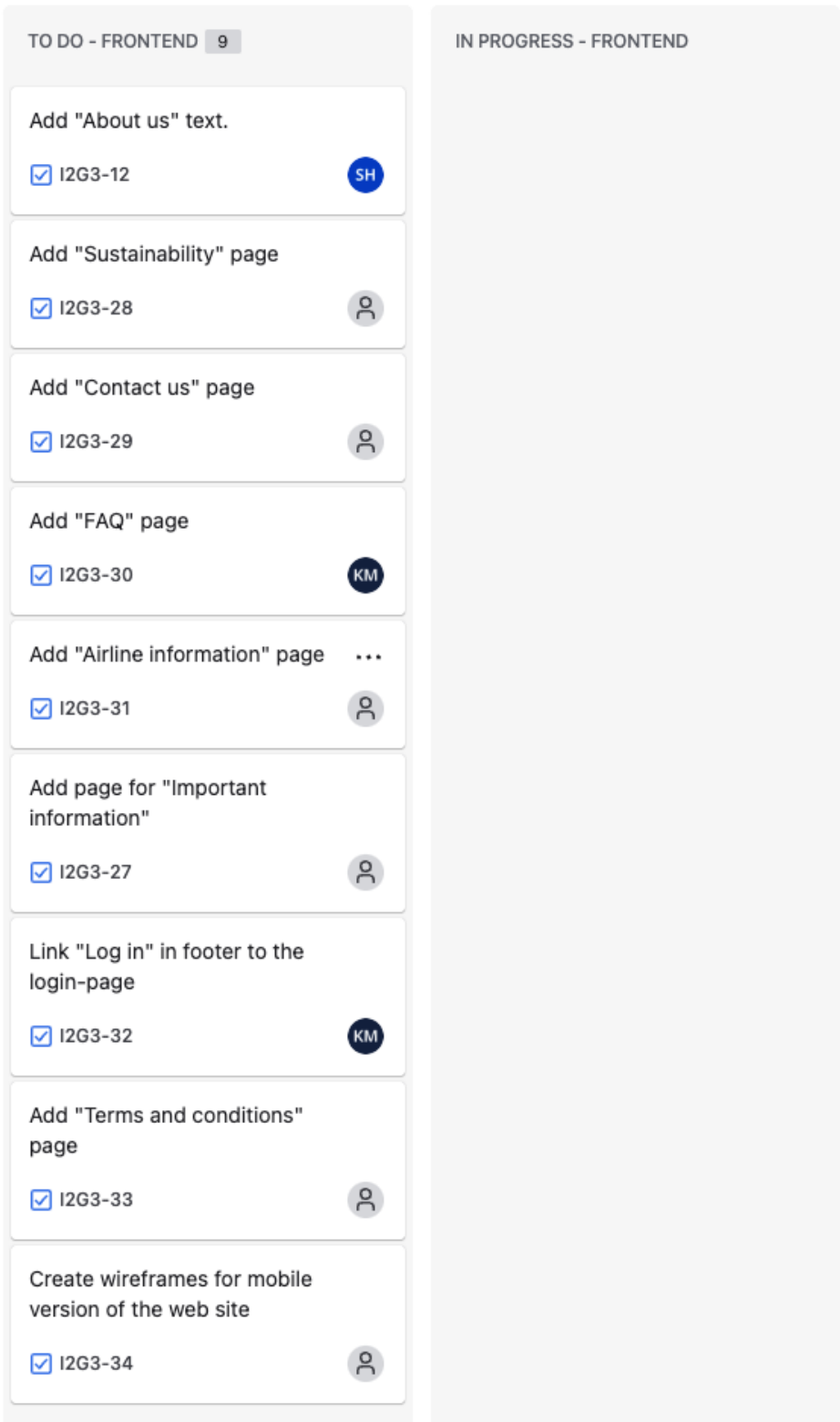


Figure 5: Sprint 3

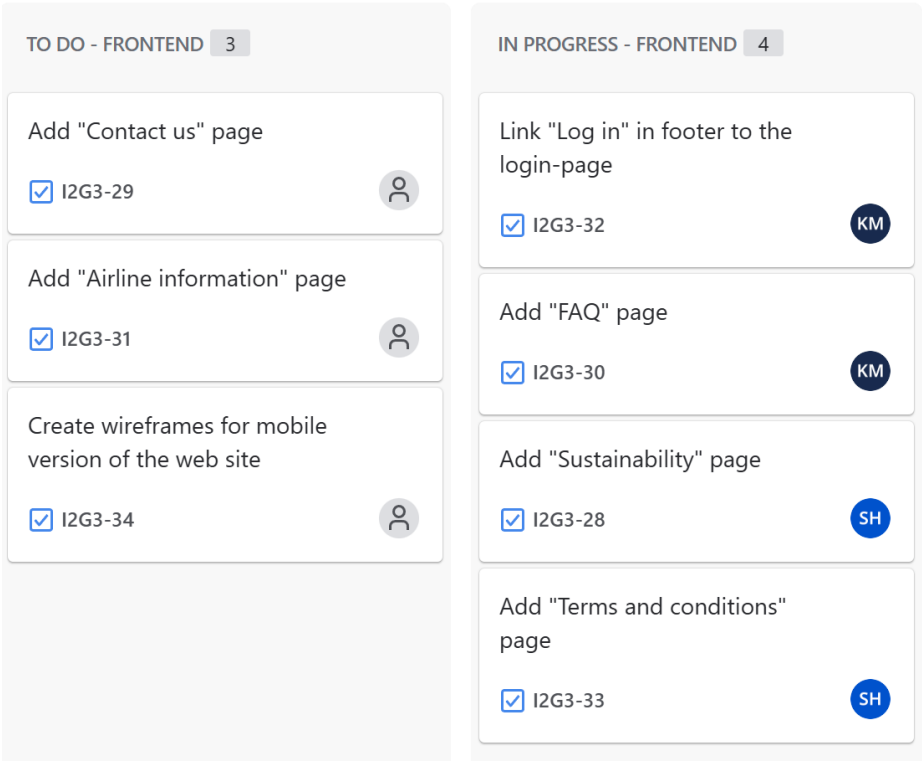


Figure 6: Sprint 3 - Week 2

3.1 Sprint goal

The goal of the third sprint is to continue adding pages for the different sections of the footer. We will also continue to work on our wireframes, especially creating new one for a mobile version of our website.

3.2 Work and assignments

- 10004: Added "Airline information", "Contact us", "About us", "Sustainability" and "Terms and conditions" page.
- 10035: Added "Important Information" page, created wireframes for mobile and fixed some bugs.
- 10061: Frontend: Created reusable PageTemplate component for global use in the application. Installed icon library in the project, focused on responsiveness for mobile devices in the application and started working on Sign Up, Log in and FAQ pages. Also worked with styling of the application and created the ScrollToTop hook.

3.3 Accomplishments

In Sprint 3, we successfully completed all our planned goals and continued building on the site's structure and responsiveness. Several new information pages were added to cover key sections linked in the footer, including Airline Information, Contact Us, About Us, Sustainability, Terms and Conditions, and Important Information. All pages were properly linked and styled to fit within the overall layout of the site.

We also began focusing on mobile responsiveness. Updated mobile wireframes were created to guide further design decisions, ensuring that the application delivers a seamless experience across different screen sizes.

On the frontend, we introduced a reusable PageTemplate component to maintain consistent layout and styling across all static pages. We also integrated an icon library and developed a ScrollToTop utility to improve user experience when navigating between routes. Work also began on user-focused pages like Sign Up, Log In, and FAQ, including styling and layout improvements for mobile devices.

Overall, this sprint brought strong progress in both design and development, pushing the project closer to completion while improving usability and maintainability

4 Sprint 4 - Week 12-14

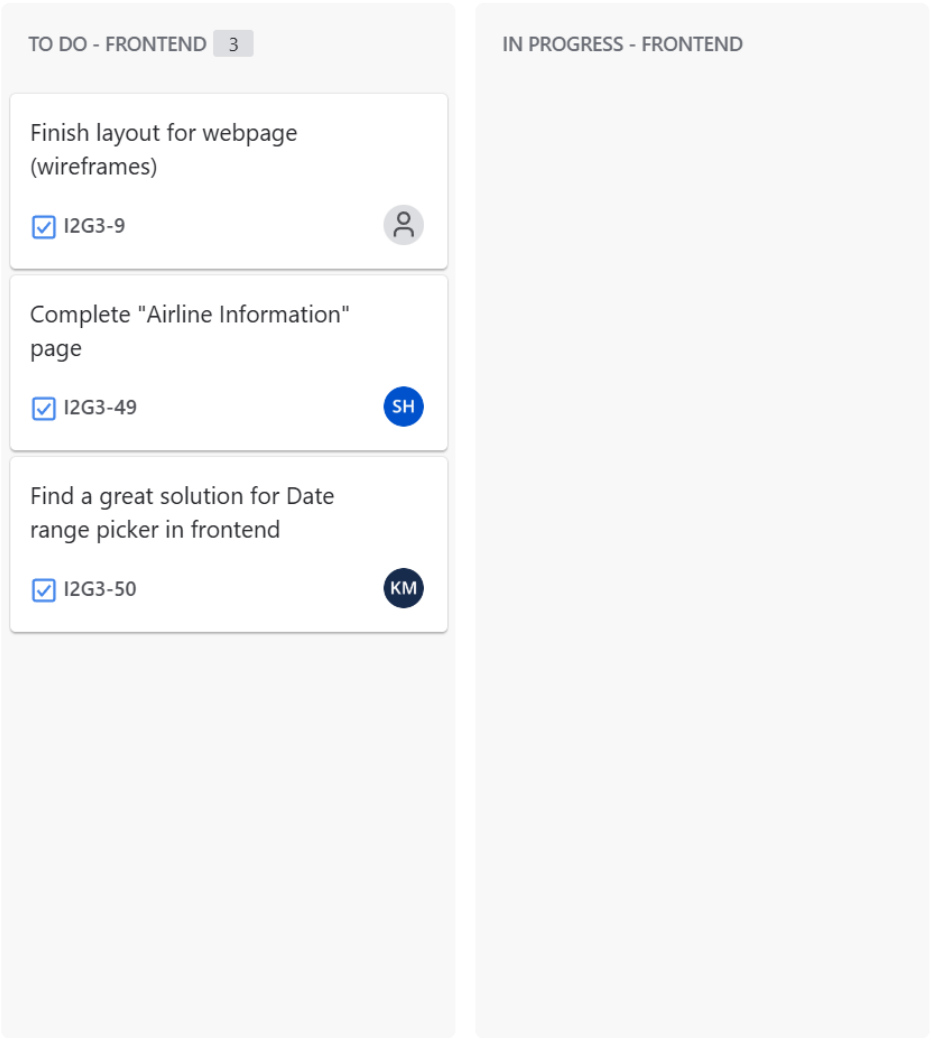


Figure 7: Sprint 4

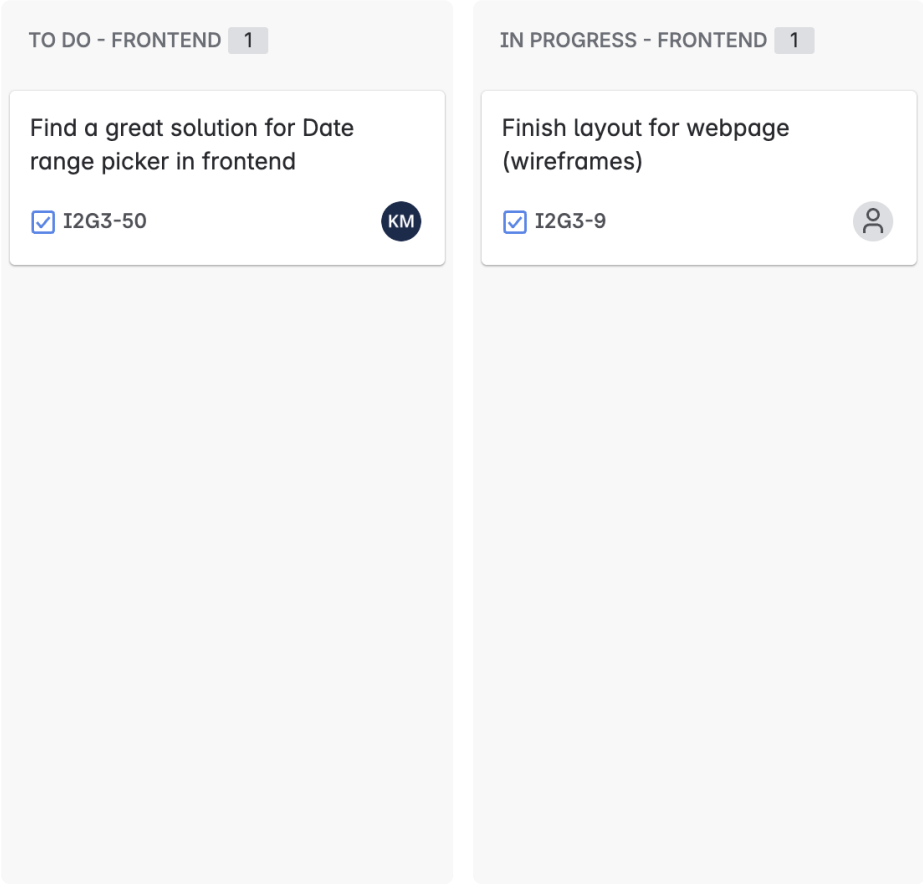


Figure 8: Sprint 4 - week 2

4.1 Sprint goal

The goal for this sprint was to continue working on some of the issues from last sprint and finish them. As well as doing some finishing touches for the front end work to help us move further on. In this sprint we will direct our focus on the back end of our website.

4.2 Work and assignments

10004: Finished the airline information page. Added more pictures and the function to click and open the pictures on a bigger scale as well as scroll through images. Added function to use keyboard to navigate through pictures, or by using the mouse and clicking on the side.

10035: Worked on wireframes.

10061: Added import configuration to the vite config file, fixed all imports globally. Continued working on various pages from previous sprint.

4.3 Accomplishments

During this sprint, we made strong progress on frontend refinements. Several outstanding tasks from the previous sprint were completed, including finalizing the Airline Information page. We enhanced this page by adding additional images and implementing interactive functionality - users can now enlarge images, navigate through them using keyboard or mouse, and scroll through image galleries, improving the overall user experience.

We also focused on resolving technical issues, such as updating the React configuration for cleaner import paths and fixing global imports across the project. These changes improve code maintainability and make the frontend easier to work with as the project scales.

While the goal of completing all mobile wireframes was larger than anticipated, we successfully finished wireframes for the key features and pages we intend to implement. As the project evolves, additional wireframes and design adjustment may still be made to accommodate new ideas.

Because this sprint also marked the beginning of backend development, we chose to extend the sprint by one week to allow for proper backend setup and integration without compromising the frontend quality. Overall, the sprint moved us significantly closer to a full-stack implementation.

5 Sprint 5 - Week 15-17

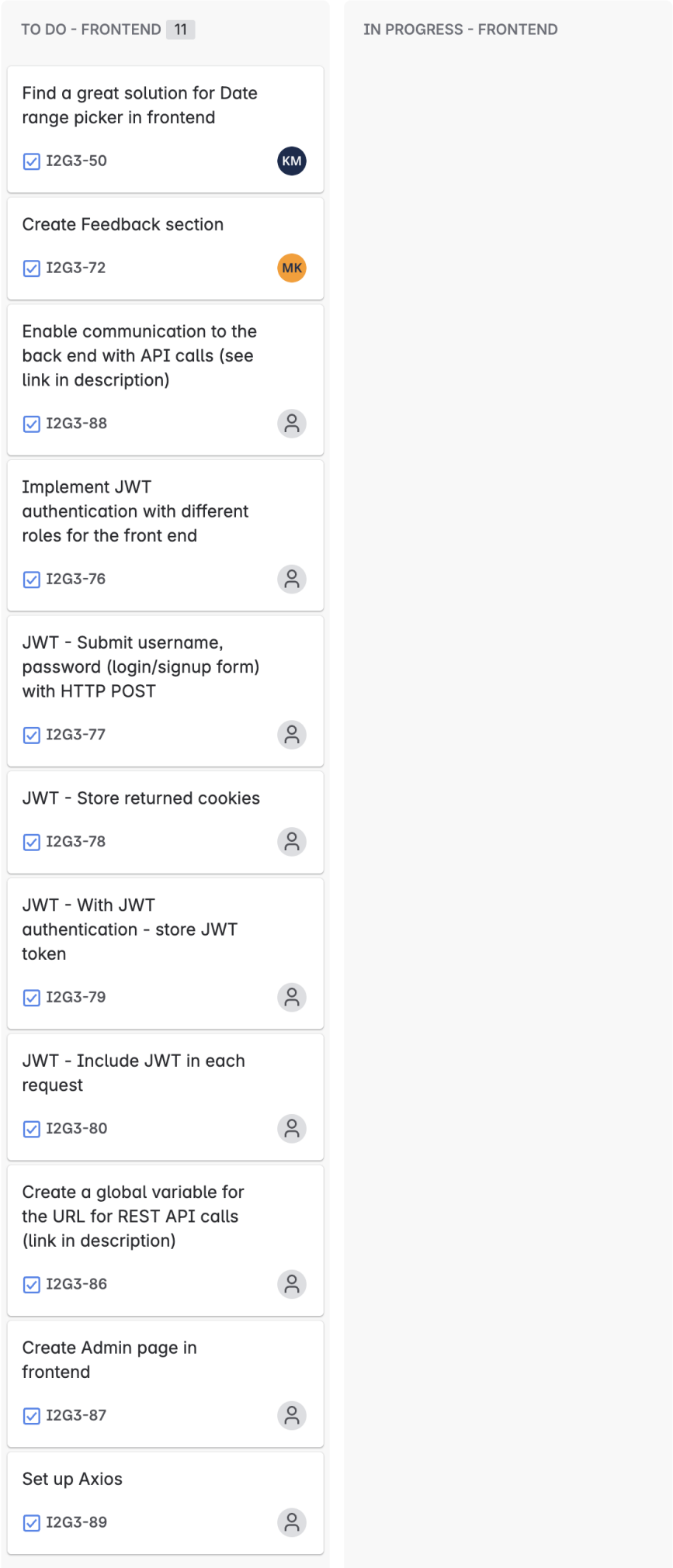


Figure 9: Sprint 5

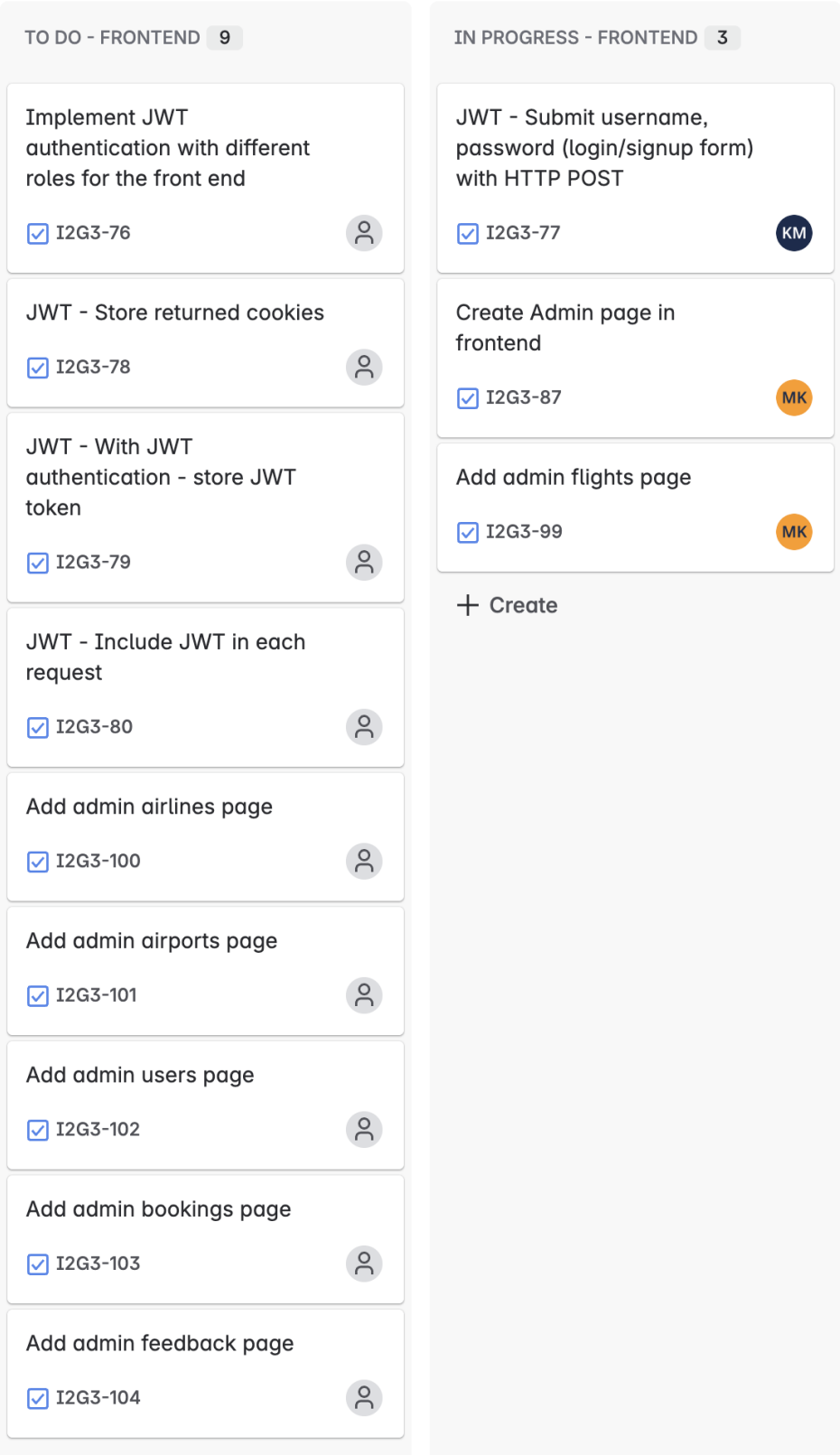


Figure 10: Sprint 5 - week 3

5.1 Sprint goal

The goal for this sprint is to enable communication with the back end using API calls, add authentication with Jason Web Tokens (JWT), create a Feedback section and create an Admin page. Due to the easter break in the middle of this sprint, we added an extra week to the sprint.

5.2 Work and assignments

- 10004: Focused on finishing JWT token for backend. Otherwise participated in discussing front-end with design and wireframes for admin page.
- 10035: Created the Feedback section on the home page, wireframes for admin pages, created the admin dashboard page and started in the Admin Flights page.
- 10061: Refactored the search functionality, created search result detail page where user can display details about the chosen flight. Created new sidebar and ensured that it's responsive on all devices. Created various date formatters.

5.3 Accomplishments

In this sprint, we made significant progress on the integrating the frontend with the backend, laying the groundwork for a fully functional full-stack application. We successfully enabled API communication using both useFetch and later transitioned to Axios for better flexibility and control over HTTP requests. Alongside this, we implemented Data Transfer Object (DTO'S) to structure the data exchanged between frontend and backend in a clean and consistent way.

A major accomplishment was the implementation of authentication using JWT. We completed the sign-up and sign-in functionality, allowing users to authenticate and access protected routes within the application.

On the UI side, we finalized the date picker, improved the search funtionality, and created a search result detail page, allowing users to view extended flight information. A new responsive sidebar was introduced to enhance site navigation across devices, and various date formatters were added to improve the readability of time-related data.

We also developed the initial version of the Feedeback section on the homepage, enabling users to leave comments and ratings. For admin users, we created the first version of the Admin Dashboard and began work on the Admin Flights page. Due to the complexity of this view and the Easter break during the sprint, some admin features will be finalized in the next sprint.

Despite the extended duration, the sprint was highly productive and moved the project closer to full feature completion.

6 Sprint 6 - Week 18-19

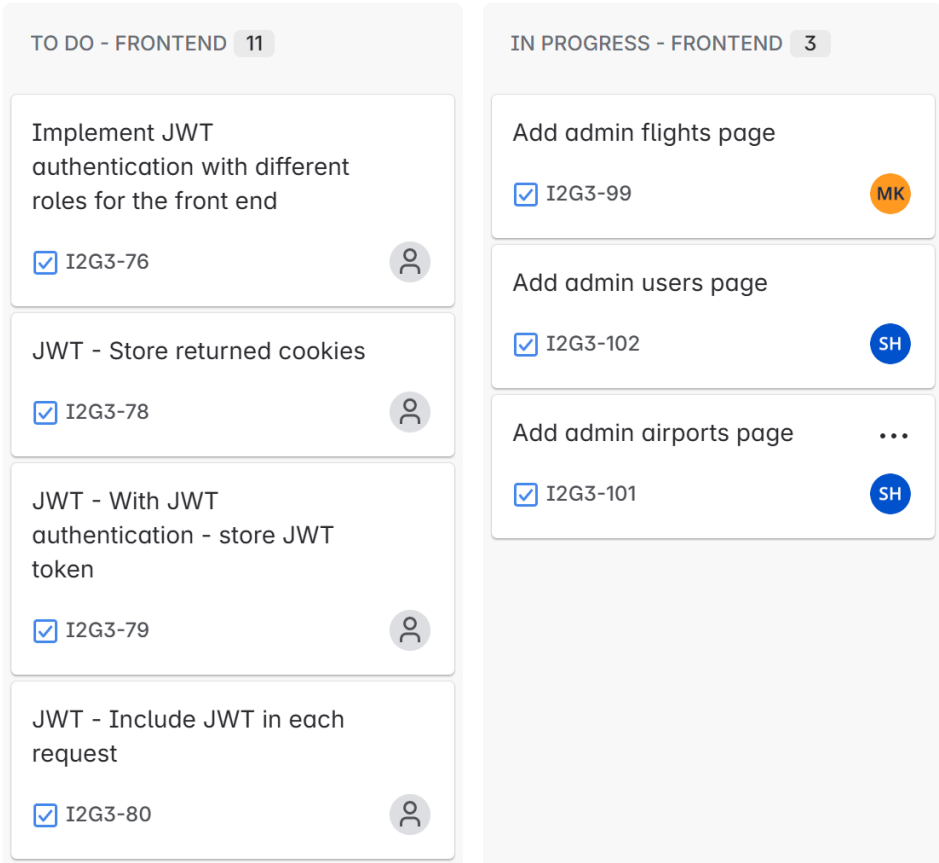


Figure 11: Sprint 6 - Week 1

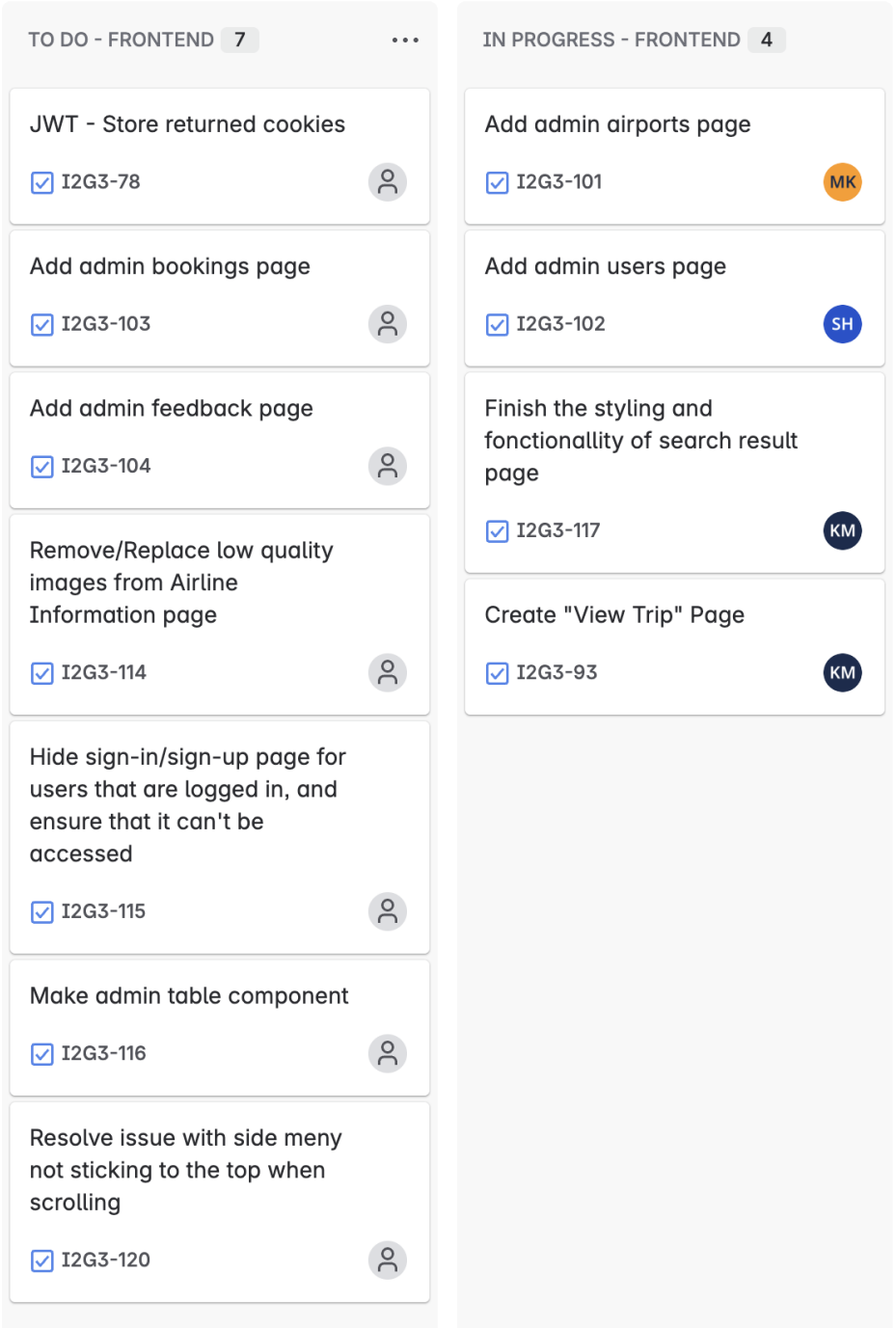


Figure 12: Sprint 6 - Week 2, mid week

6.1 Sprint goal

The goal for this sprint is to create the ADMIN page. This is a page only available to those with the ADMIN role. On this page is where an admin can control everything and change and edit information about users, flights, airports, airlines etc. Also to have JWT properly integrated in the frontend.

6.2 Work and assignments

10004: Worked on the admin users page and the "my page" for users. For the admin users page is where the admin can do changes to a users profile also change the role of a user. The admin can also add users and choose what role that user should have. On the "my page" for users, users can update some of their own information, such as name, email, password, country and phone. Looked over pictures used in "airline information" and removed low-quality pictures and compressed images to not take as much space/storage.

10035: Finished working on the admin flights page which took longer time than expected. Also completed the following admin pages: airlines, airports, bookings and feedback.

10061: Refactored the search functionality, created search result detail page where user can display details about the chosen flight. Created new sidebar and ensured that it's responsive on all devices. Created various date formatters.

6.3 Accomplishments

This sprint was focused on implementing the Admin interface and further refining authentication and user management. We successfully completed the development of several admin-specific pages, including those for managing flights, airline, airports, bookings, and user feedback. These interfaces allow admins to create, update, and delete data, giving full control over key resources in the system.

A dedicated Admin Users page was created, where admins can view all users, update user details, and assign or change roles. For regular users, we implemented a "My Page" section, enabling users to update their own profile details such as name, email, password, country, and phone number.

We also completed the integration of JWT authentication in the frontend, storing the token in session storage to maintain login state and authorize access to protected endpoints. After review, we decided not to implement JWT cookie storage, as session storage fulfilled our current needs securely and effectively.

On the frontend, image optimization was carried out by removing low-quality airline images and compressing large assets to improve performance.

While we met nearly all of our goals, two tasks were deferred: abstracting the admin table into a reusable component, and hiding the sign-in page from already authenticated users. These items are noted for potential inclusion in the next sprint or as future enhancements.

Overall, this sprint solidified the role-based access functionality and greatly improved the maintainability and completeness of the admin-side features.

7 Sprint 7 - Week 20

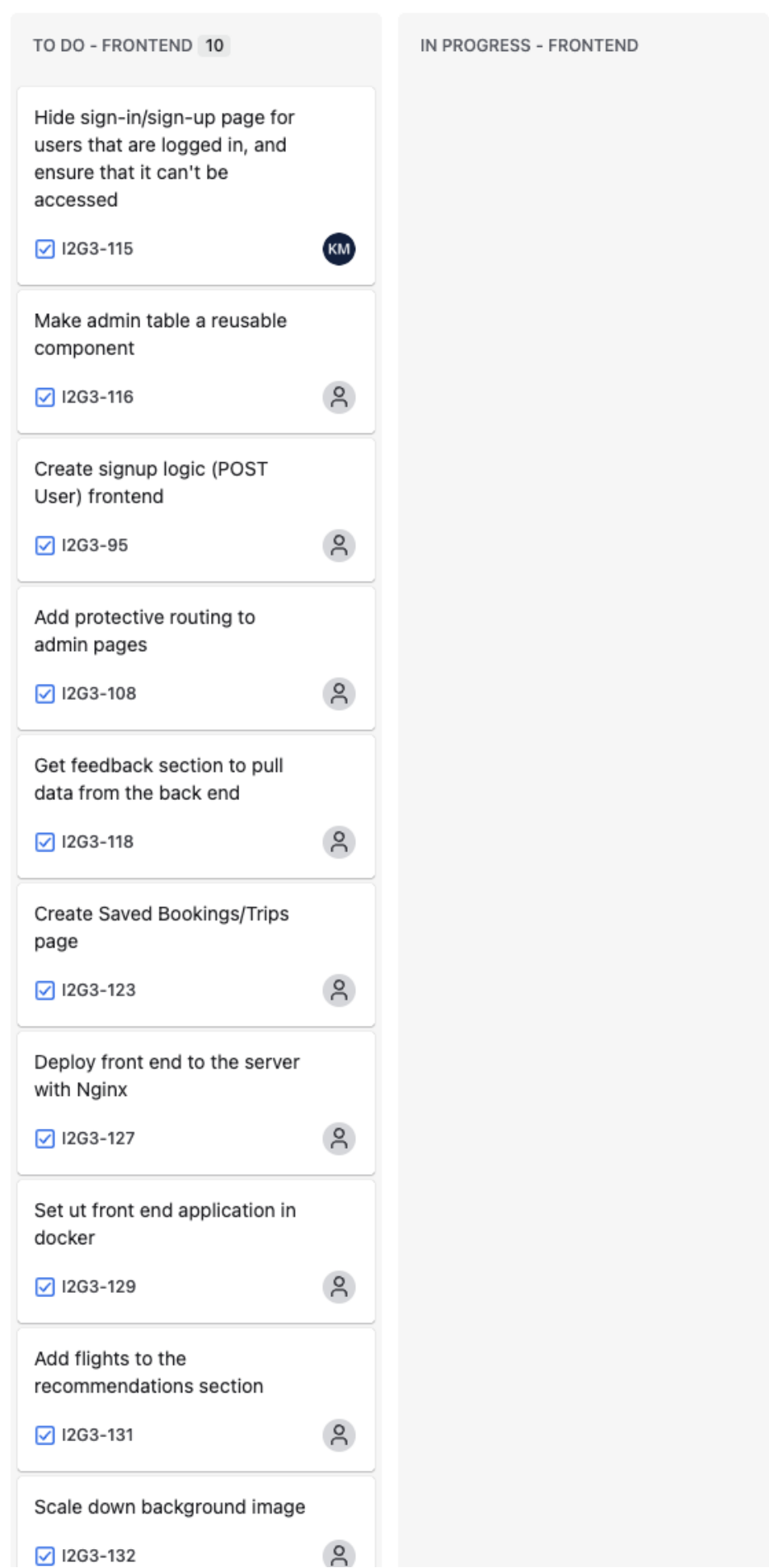


Figure 13: Sprint 7

7.1 Sprint goal

The most important goals for this is to deploy the application on the server with docker, pull feedback data from the back end, add protective routing to the admin pages and create a saved trips page.

7.2 Work and assignments

10004: Worked mostly on backend. Refactored some code for front-end and added some finishing touches on different information pages.

10035: Got the feedback section to pull data from the back end, added some flights to the recommendations section, got the react application to run in a docker container, and installed Nginx on the server.

10061: Created search result details page with all information about the chosen flight, styled the page and ensured that it's responsive for mobile devices. Implemented the save trip/booking functionality and share booking method. Started working on saved trips page.

Everyone checked wireframes and worked on the script for the video presentation of the project.

7.3 Accomplishments

In this sprint, we made strong progress in finalizing both backend and frontend functionality, as well as preparing for the project presentation.

On the frontend, we completed and styled the Search Result Details page, displaying all relevant flight information in a responsive layout. We also implemented the "Save Trip" (booking) functionality, allowing users to store selected flights, and began developing the Saved Trips page. Additionally a "Share Booking" feature was introduced to allow users to share selected flight details.

The Feedback section was successfully connected to the backend, enabling users to view feedback submitted by others. We also updated the Recommendations section with additional flight listings for a more engaging user experience.

From a devops perspective, we made key development progress: the React application now runs inside a docker container, and Nginx was installed and configured on the server to host the production build of the frontend.

As a group, we reviewed the wireframes to ensure alignment with the final implementation and collaboratively worked on the video presentation script, preparing for the upcoming final submission.

This sprint moved the project into its final phase, with most core features complete and deployment in place.

8 Sprint 8 - Week 21

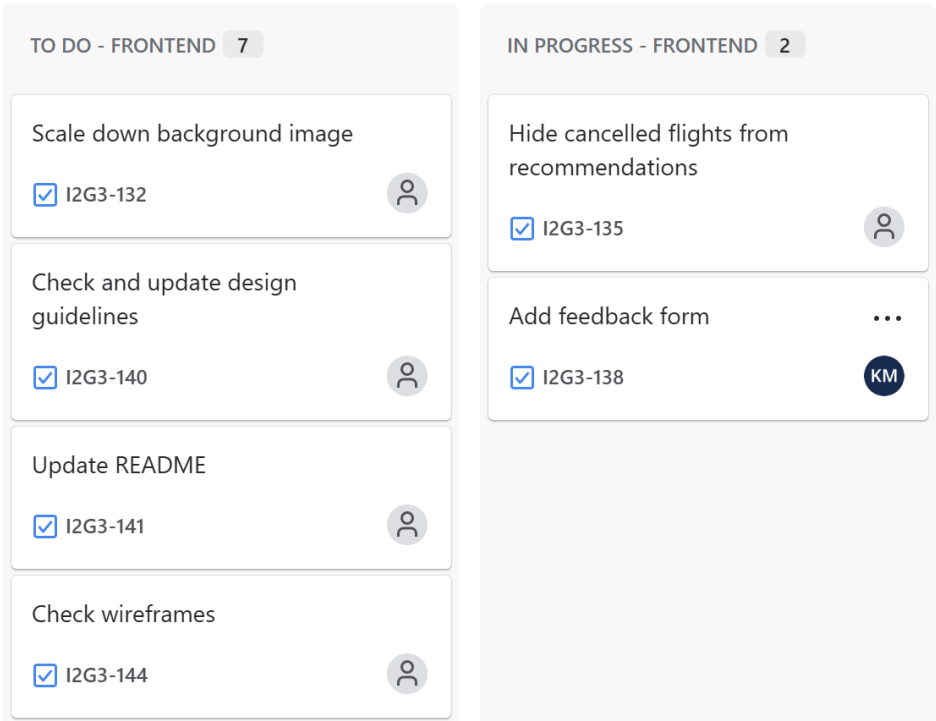


Figure 14: Sprint 8

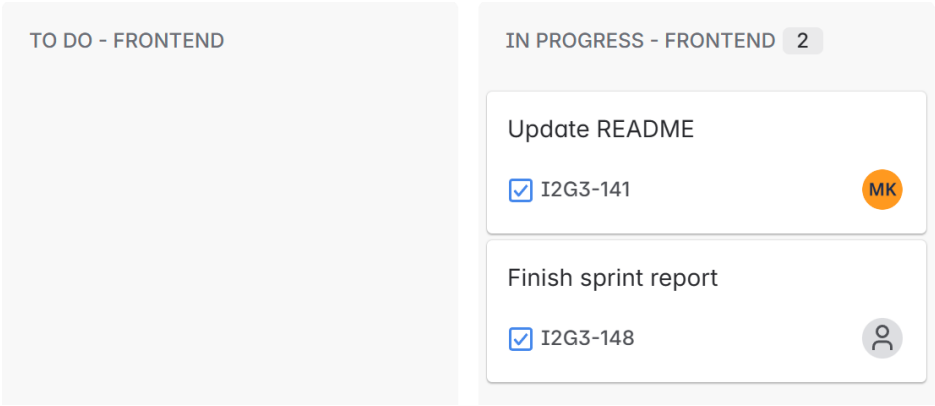


Figure 15: Sprint 8 - Midweek

8.1 Sprint goal

The goal for this sprint is to finish the work with the application, including all documentation, and launch it to the server. We will also finish the script for the video before creating it.

8.2 Work and assignments

10004: Worked mostly on the documentation. Cleaning it up and focused on the video-script. Refactored and cleaned up some code for the front-end.

10035: Scaled down the background image and added one more image to make the page more dynamic, updated README and design guidelines, added more recommendations, fixed some bugs related to accessibility, launched the application on the server with docker and nginx.

10061: Finished styling of saved booking page, added methods to view and delete saved trips. Ensured that the user will be notified about cancellation of a saved trip. Created Checkout page where user is redirected after booking. Added Feedback page where user can submit the rating and a comment. Refactored and fixed various bugs and issues. Improved styling of some of the pages.

Everyone worked to finish and clean up the code, make the video script, create the video and review all the work for mistakes and make it ready for delivery.

8.3 Accomplishments

During this sprint, we successfully completed the final implementation of our application. We finalized and polished all user-facing features, including the saved bookings functionality, feedback submission, and the checkout confirmation flow. Overall styling was improved to enhance the user experience.

In parallel, we focused on preparing for the final delivery. This included updating and finalizing the documentation, README, and design guideline, as well as writing the script for presentation video. The video was recorded and edited as part of this sprint.

As a group, we worked collaboratively to review all code and documentation, ensuring everything was clean, consistent, and ready for submission. The sprint goal - to finalize the project and prepare all deliverables - was fully achieved.