## Nancy:

Our project is to create an application

To help Danone Nutricia New Zealand supply achieve their goal which is becoming a certified paperless factory

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These are our group members ...

small introduction

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Welcome the members who did the coding part to share the difficulties they met and the skills they gained

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## Heath：

Good day, everyone!

My name is Heath, and I am proud to be the team leader of Team 4. Today, I am excited to share with you the incredible journey we have had in designing and developing our web application.

To begin, I took on the responsibility of designing the interface of our application using Figma. We carefully crafted each element, ensuring that it not only met our design goals but also catered to the needs and expectations of our users.

Once the interface design was approved by our mentor,

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I utilized the React library to bring our vision to life. Our codebase is organized in such a way that the resources are stored inside the public folder, while the core logic and interactions are encapsulated within the components located in the src folder.

As we progressed, we faced the challenge of integrating our frontend with the backend. To overcome this, I wrote functions that fetch data from the backend API. This enabled us to display the names of six buttons on our application, aligning perfectly with the requirements outlined in our project scope.

Furthermore, I implemented an ingenious functionality that constantly monitors any changes in the backend API. Using a timer set to every five seconds, our application dynamically updates and reflects the latest information for a real-time and synchronized experience.

Now, hand over to ziqi, our frontend developer.

## Ziqi：

Hello, everyone, I am Ziqi, In this project my main job is front-end design and integration, specifical focus on the display and interaction with PDF files.

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On the front-end, I worked on a user interface with six buttons which are hidden by default.

Users can view these buttons by clicking the 'Display Only' button, Each button is dynamically linked to a specific PDF file.

When a user clicks any of these buttons, the corresponding PDF will open in a new browser tab.

For the integration part, our backend program will generate 6 different URLs and my duty is let each button open the

correct PDF. Moreover, I also make the program open the correct size of pdf when the user use different devices, like

ipad, mobile or laptop.

OK, so this covers all my role in the project, welcome louie - our backend designer.

### Louie：

We have developed the backend using the Flask Framework, implementing seven APIs to accommodate the six request buttons from the frontend. These APIs also convey the file name back to the frontend. Initially, we encountered difficulties finding suitable APIs to transfer PDF files. Some solutions resulted in messy codes or only allowed JSON responses. However, we achieved success by implementing a RESTful API, enabling successful PDF transfer to the frontend. To ensure compatibility with the frontend requirements, we experimented with different ports in the backend. Eventually, we settled on using ports 5001 to 5022 for establishing connections with the frontend. In order to handle cross-domain and same-origin policy restrictions, we integrated the CORS (Cross-Origin Resource Sharing) mechanism. CORS allows controlled access to resources from different domains, facilitating communication between the backend and frontend while maintaining security.

## Nancy：

now its turning to designing part.

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## Violet:

Report slide: In the report writing, I checked through the whole report and made changes to ensure the font and layout were neat. I added a paragraph explaining the resources required and the project targets. This can help the outsiders view the report with the project’s background and purpose. Design thinking was the starting part of this project, so I added this part. And lastly, I added screenshots of a PDF display page. This is a perfect visualization of how the application looks like.

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Figma slide:

We struggled with the design of the application, and we asked our mentor for help. He gave us the idea of making two different designs for the second page. Heath and I created two designs. Our mentor chose the vertical design as it is easier to browse through the lists from top to bottom instead of left to right. Therefore, we decided to use the design on the left screenshot as our final design. Now, it’s John’s time.

## John:

Morning everone, I am John, and as you saw in the slide before. I am responsible for the PPT slide design and organization. The flow path of the presentation like the priority of speaking time as well as content of presentation.

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Additionally, I aslo participated in some part of the backend work. As you can see on the slide. I designed the transfer API port in app\_80 file to achieve fining pdf files according to the data in Orders.dat file. And transport the corresponding json information including pdf name to the frontend port. As a result, the pdf file name could be displayed on the center of the button correctly.

Thanks for listening my speech and now it turns to Nancy.

## Nancy:

My major work is to communicate with other group members to know their ideas such as the coding part as well as the combining the working part made by John and Velvet . Beyond that, l also learned many useful skills such as making table of content in Microsoft word, ER diagram and the background

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design in PowerPoint so on and so forth.

In conclusion, our team indeed met a lot of difficulties during this process. However we also get many useful skills that can be used in the future. So it is pretty meaningful.

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Ok right now is the demo time.

## demo:

first lets start by typing npm start in the terminal

now, we can see that the web is randered by react automaticlly

this is the main page of our web application

once we click the display only button, it will direct us to the production page

here are two production lines and every button can be opened and pop up a pdf file according to the prod ord or sku num

as we can see here the pop up window is the size on computer, we can also simulate the situation on ipad or phone, if we deploy this site as you can see the code here, it will change the opening pdf automaticlly

according to the requirements, if the pdf file is not found in the backend, it will appears an error message automatically without refresh. this is because we add a function to monitor whether or not there is a change in the backend api, if there is, the new information will dynamiclly updates in 5 seconds.

we can also try differnet prod ord and sku nums and the update pdf is always the on we altered a second ago

in the end, once the user finish the operation, they can simply click the return button to back to the home page.

that’s all for the demo, if you have futher questions feel free to ask!