# Project Specification

## Members

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## Product Backlog

Based on the project proposal, we made little changes to the functions and divided the functions to function points and finally wrote user stories for each function points. Based on the coarse design of each user story, we estimated the workload of each user story. We also set priority for each tasks.

| ID | Name | User Story | Estimate | Priority |
|---|---|---|---|---|
| 1 | [Login] | As a user, I want to log in to the system so I can use extra channel functions. | 1 | 9 |
| 2 | [Register] | As a new user, I want to register the system so I can use extra channel functions. | 1 | 8 |
| 3 | [Create a new channel] | As a user, I want to create a new channel in the web application so that I can share files with other users. | 2 | 3 |
| 4 | [Enter channel] | As a user, I want to enter an existed channel so that I can share files with others. | 4 | 4 |
| 5 | [Input channel password] | As a user, I need to input the channel password to enter a channel with a password. | 2 | 11 |
| 6 | [Add channel password] | As a logged-in channel creator, I want to add a password for my channel to keep my channel more private. | 2 | 12 |
| 7 | [Upload file] | As a user, I want to upload my files to share with other users in the channel. | 6 | 1 |
| 8 | [Download file] | As a user, I want to download the files that other users share in the channel. | 4 | 2 |
| 9 | [Generate QR code] | As a channel, it should generate QR code for users to easily come in. | 2 | 13 |
| 10 | [Get channel information] | As a channel, it should update the files in it periodically. | 4 | 6 |
| 11 | [Modify duration] | As a channel creator, I want to modify the duration time to manage the channel. | 1 | 15 |

| 12 | [Set lecturer mode] | As a logged-in channel creator, I want to set the channel to lecturer mode, so that only I can upload files in the channel. | 1 | 14 |
|---|---|---|---|---|
| 13 | [Expire channel] | As a logged-in channel creator, I want to make the channel expire immediately, so that others won't access the files in that channel any more. | 1 | 16 |
| 14 | [Modify channel password] | As a logged-in channel creator, I want to modify the channel password | 1 | 14 |
| 15 | [Count user number] | As a channel, it should show how many people are in the channel. | 4 | 7 |
| 16 | [Get user basic information] | As a logged-in user, I want to get basic information of my account, including user name. | 2 | 18 |
| 17 | [Get user available channels] | As a logged-in user, I want to get all the channels I created that are not expired at the current time. | 1 | 20 |
| 18 | [Log out] | As a logged-in user, I want to log out. | 1 | 10 |
| 19 | [Modify user information] | As a logged-in user, I want to modify my user name or password. | 1 | 19 |
| 20 | [Check expired time] | As an application, it should check the created time, and when it exceeds the expired time, the application should delete all the files in the channel, and set the channel code unused. | 2 | 5 |
| 21 | [Archive] | As a user I want to archive the all the information in a channel. | 6 | 21 |

# First Sprint Backlog

Based on the priority of the tasks, and the time resources we have for the first sprint, we selected a set of user stories. Since we also need to build up a development environment in docker and also connect to the databases, we didn't choose upload files and download files even though they are the primary functions of our application. Here are the tasks we chose.

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# Data Model

We have 4 data models: user, channel, session, file.
- User model is used to record user info like username and password.
- Channel model is used to record channel info like the unique 4 digits code for each channel, when the channel is created and expired, and if the channel is in lecturer mode so that only the owner can upload files.
- Session model is used to record all the session in a channel, so that the website can count number of users in a channel.
- File model is used to record the information about each file.