getTHIS Project Final Summary

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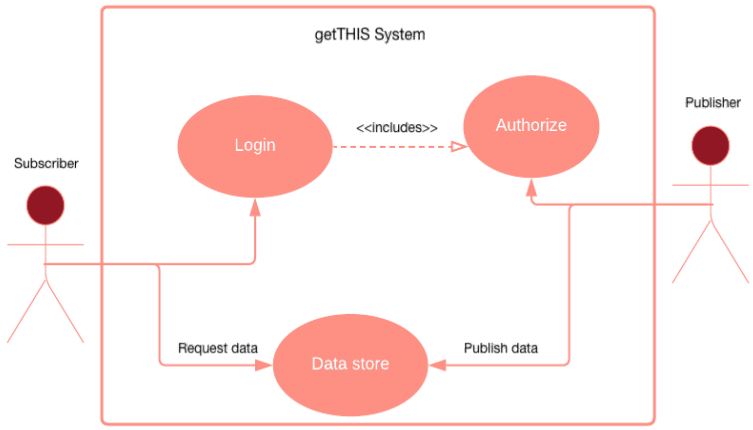
Overview

getThis is a content distribution application that has the ability to send and receive data/files over a shared network/organization. This application will utilize a raspberry pi and software solutions to connect one user to the raspberry pi to transfer all kinds of files including but not limited to ".jpg, ,png, .mp3, etc.". Users will be able to connect to the same network and will be able to download the files that are targeted for them. getThis will be versatile enough to work for files in multiple scenarios and use-cases including digital restaurant menus, university assignments and healthcare clinics.

Use Cases

The main use case of getThis is user login and then uploading/downloading of data based on the user role. The consumer can download the documents and the publisher can upload the documents to the server.

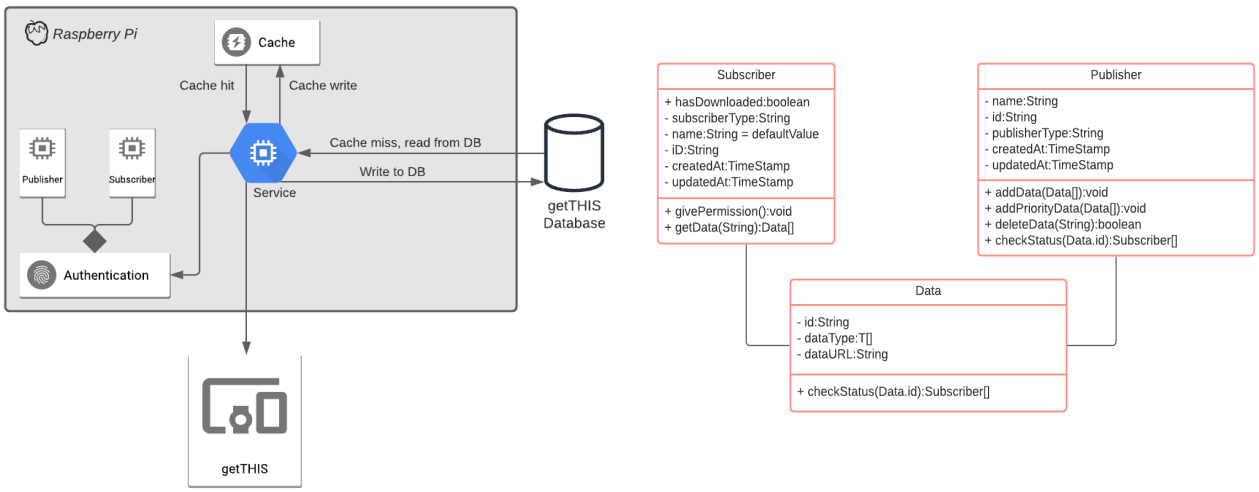


Requirements

- Functional:
    - The application must ensure that relevant data is passed between to the users.
    - The authentication process must be able to separate a subscriber from a publisher.
- Data:
    - The data must be identifiable for the targeted user.
    - The security of the data should not be compromised.

- Security:
    - The data should be encrypted between communication so it is not easily hijacked.
    - The data should be intermittently backed up and fail-safe procedures should be in place.
    - The database should not be accessible publicly but only through the *Raspberry-pi server*.
- Usability and Humanity:
    - The application must follow suitable ethical standards to be used by all users..

Design



Testing

- Unit testing each module.
- Usability testing.
- Functional testing:
    - Test functional requirements
    - Scenarios or use-case based testing.
- Acceptance Tests.
- Features to be tested:
    - Publisher and Subscriber authentication.
    - Seamless connection and performance in low bandwidth.
    - Priority-based data distribution.