Sonar Technical Design Document

1. Tech Stack

Front-end Technologies	React, Java Script, HTML/CSS, Bootstrap
Back-end Technologies	Java
Database Technologies/Tools	MySQL
Deployment Tools/Software	VS code, GitHub, Google Developer Account, AWS, Gmail, Chrome Web Store Developer Account
API	Gmail API, Google API
Protocol	Oauth 2.0
Storage and Deployment	Amazon S3

2. Accounts and Infrastructure

2.1 Development

Local machines will be the development environment for each developer and each developer would have an account in GCP (Google Cloud Platform). Our testing environment setup will be on EC2 instance (for QA)

Data Sources, Models, Timing

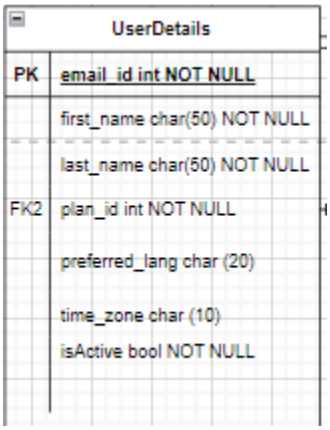
1.1 Data Sources

The data source would be registered user’s Gmail account details and sent emails. It will be maintained by the user itself.

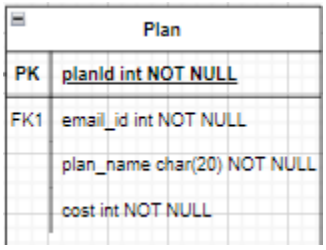
1.2 Data Models and Structure

The following table would be created:

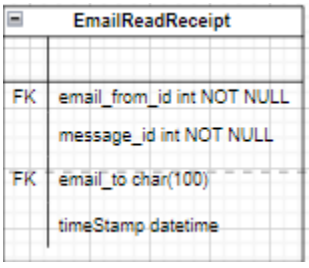
1. **UserDetails** table : This table will store all the registered user specific data.



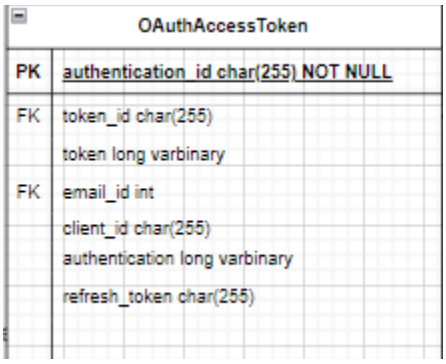
2.**Plan** table: This table will store details about the plan the user is currently registered to Basic/Advanced

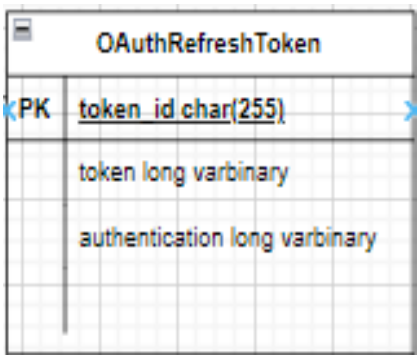


3. **EmailReadReceipt** table: This table will store data related to the sent email and read time Stamp

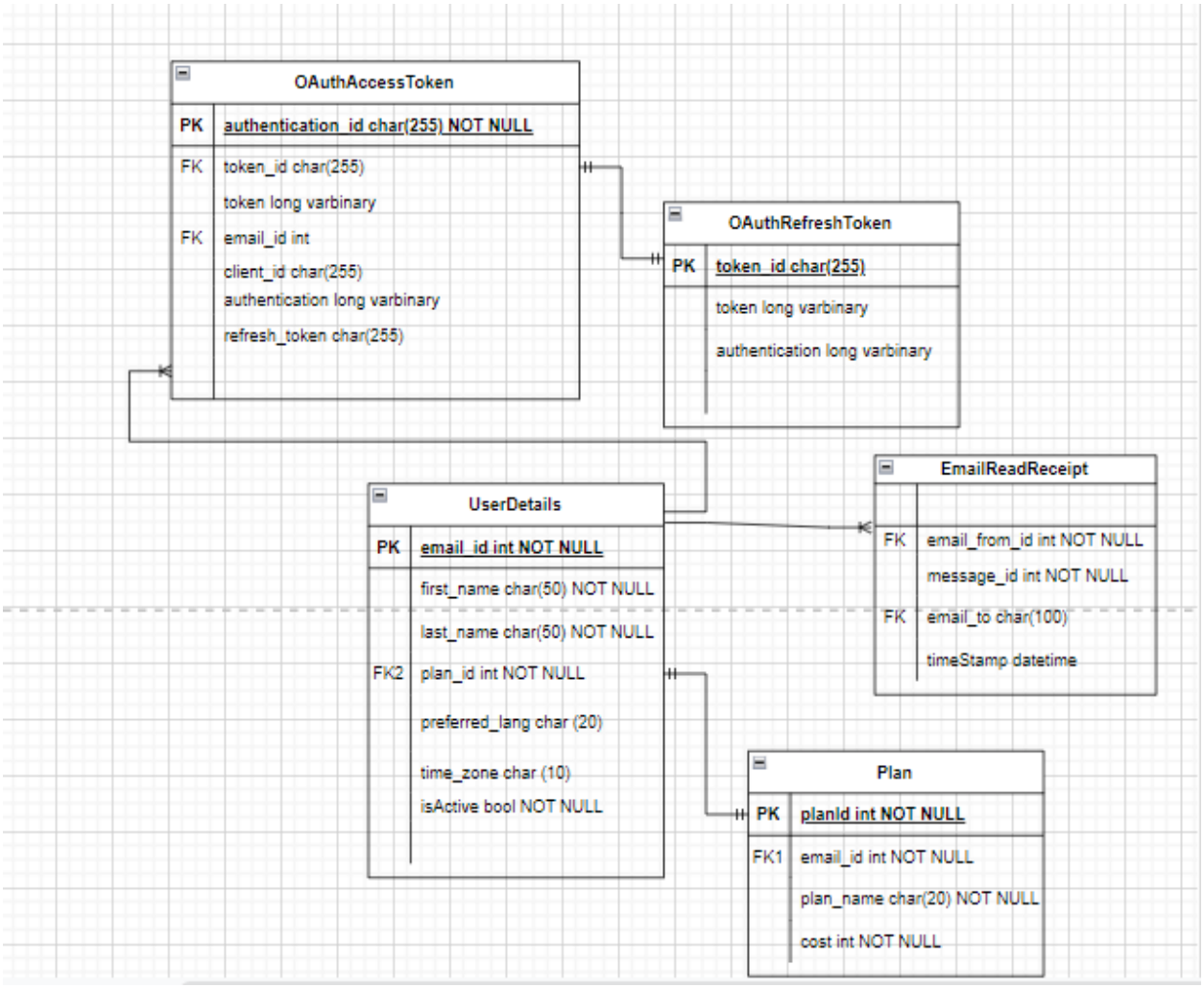


4. **OAuthAccessToken** & **OAuthRefreshToken** table : This table will store the access tokens required to perform OAuth authentication for registered/ logged in user.





ERD Diagram

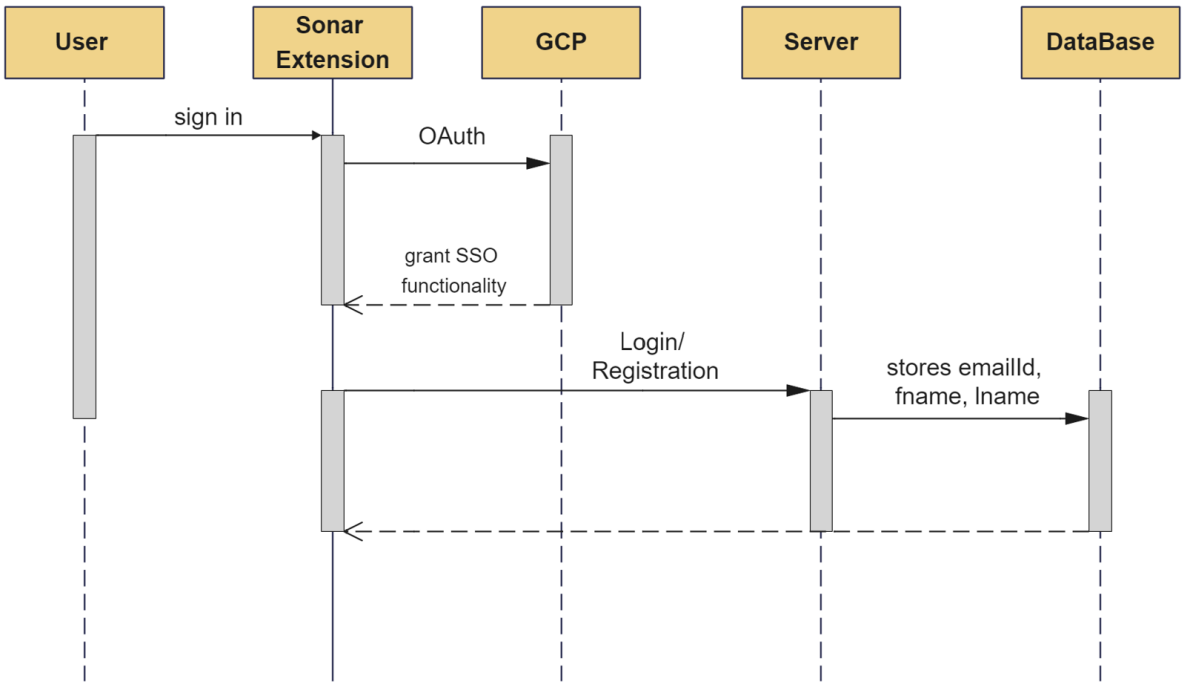


1.3 Timing

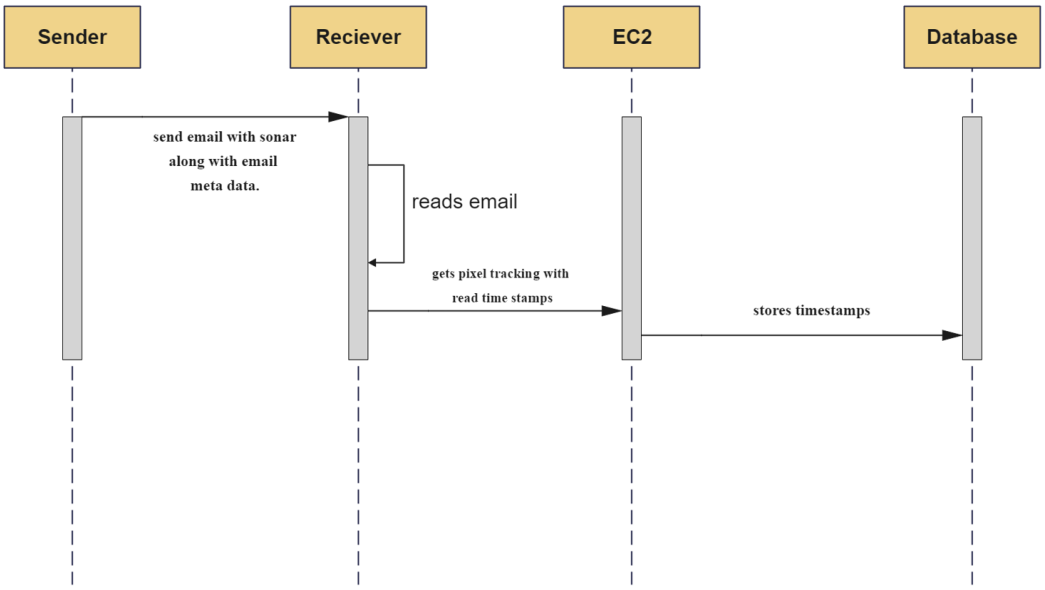
User account data will be in the system as long as the user account is not deleted and is registered with Sonar. Read receipts for emails older than 12 months would be archived and deleted from the system. Once the data is deleted, the read receipts for older emails will not be visible on the interface.

System Architecture Diagram

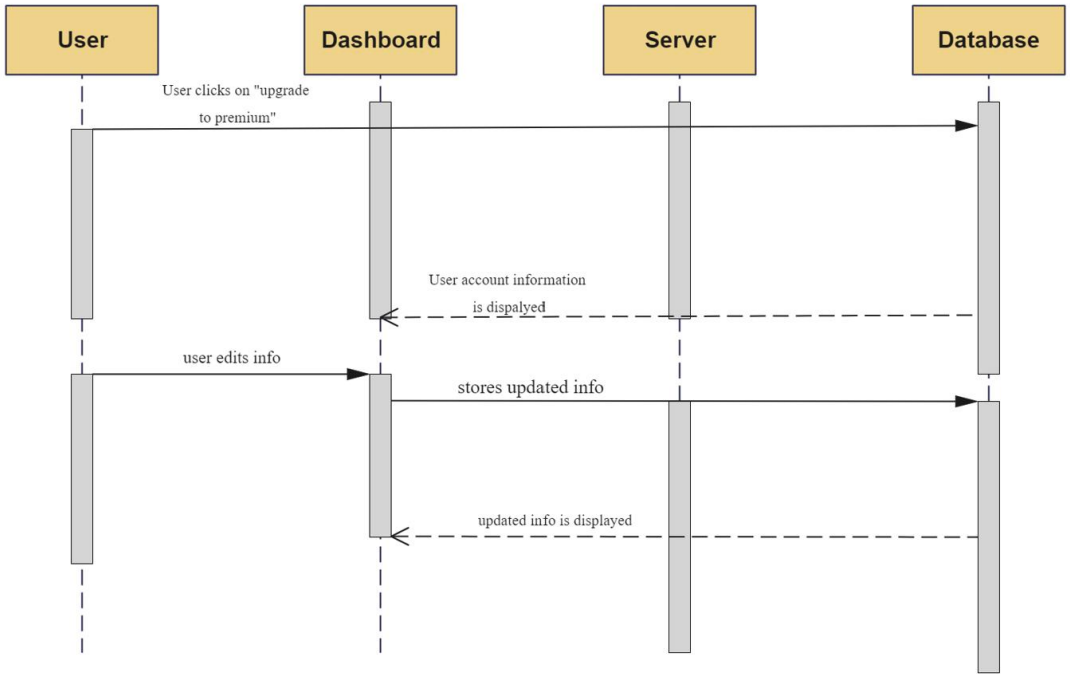
1. Register or Login



2. Sent Box with Sonar



3. User Dashboard



Deployment Methodology

The extension would be published on the chrome webstore and the project will be deployed on the EC2 server. Data will need to be recreated. We will handover the source code to the sponsors as a part of code turn-over.