System design CSCC01 Sprint1

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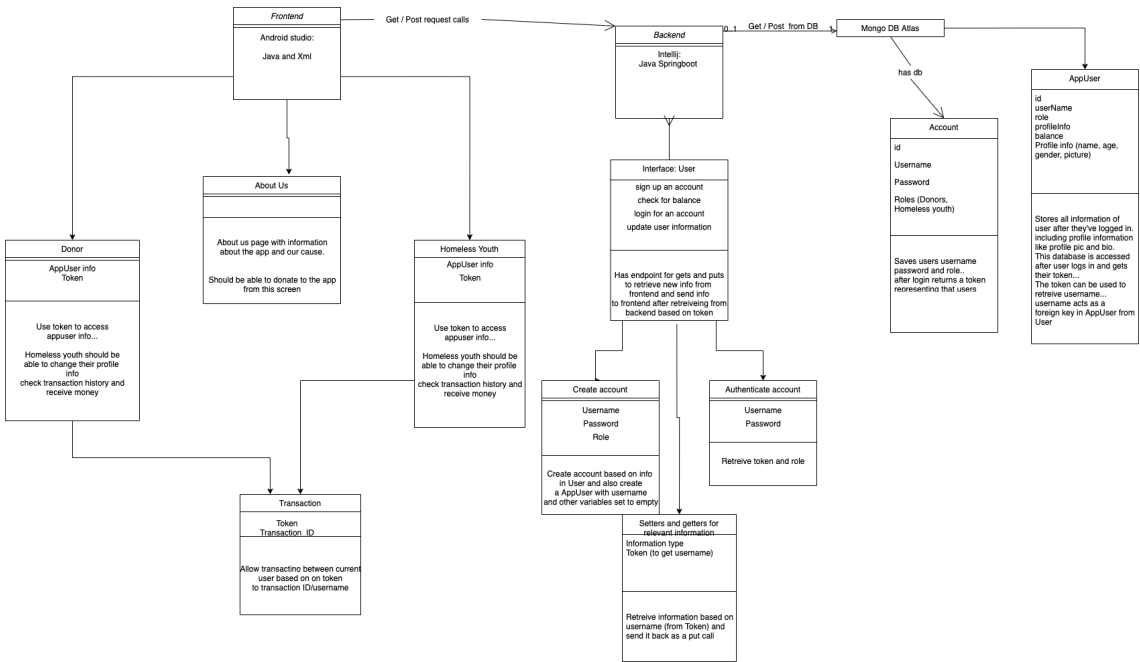
0. Table of Contents

CAC Cards

Frontend

Android studio:
Java and Xml

— Get / Post request calls →

Backend

Intellij:
Java Springboot

0..1 — Get / Post from DB — 1..*

Mongo DB Atlas

has db

About Us

About us page with information about the app and our cause.

Should be able to donate to the app from this screen

Donor

AppUser info
Token

Use token to access appuser info...

Homeless youth should be able to change their profile info
check transaction history and receive money

Homeless Youth

AppUser info
Token

Use token to access appuser info...

Homeless youth should be able to change their profile info
check transaction history and receive money

Interface: User

sign up an account
check for balance
login for an account
update user information

Has endpoint for gets and puts to retrieve new info from frontend and send info to frontend after retreiveing from backend based on token

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Account

id

Username

Password

Roles (Donors, Homeless youth)

Saves users username password and role..
after login returns a token representing that users

AppUser

id
userName
role
profileInfo
balance
Profile info (name, age, gender, picture)

Stores all information of user after they've logged in. including profile information like profile pic and bio.
This database is accessed after user logs in and gets their token...
The token can be used to retreive username...
username acts as a foreign key in AppUser from User

Create account

Username

Password

Role

Create account based on info in User and also create a AppUser with username and other variables set to empty

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Authenticate account

Username

Password

Retreive token and role

Transaction

Token
Transaction ID

Allow transactino between current user based on token to transaction ID/username

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Setters and getters for relevant information

Information type
Token (to get username)

Retreive information based on username (from Token) and send it back as a put call

Software Architecture Diagram

Controller

Controller written in frontend as Java classes
Handles relevant if statements in terms of page navigation and what data to fetch from model

1. Display ui to user

2. After user click on button alert controller to save changes to object

3. Before displaying next page send data to backend model

View

Display written in frontend controlled by android studio: Xml
Should handle display and storing and giving user button clicks/text-box inputs to controller

5. Alert that data has been changed and send new data to frontend

Model

Model written in backend as spring boot application
End point for retrieving and sending data to view

6. Fetch even more backend if it required and continue until all data necessary is obtained

4. Accesses DB via get/put calls