System Design Document

Friday October 8, 2021

Sprint 1

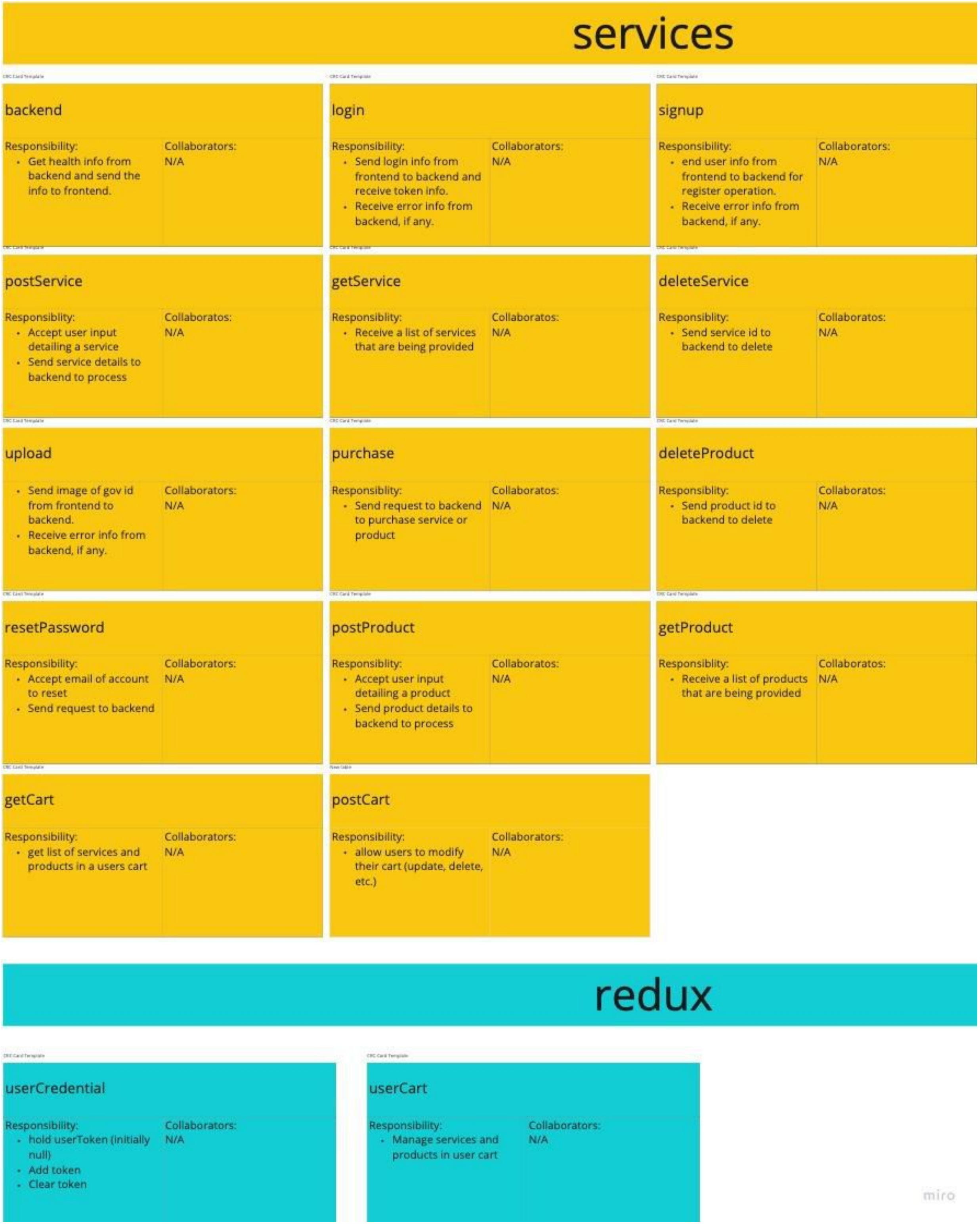
Krutik Tejalkumar Shah
Mark (LiangShu) Chen
Steven Hans Limantoro
Tanzim Ahmed
Tony Chen
Pasa Aslan
Payam Yektamaram

Table of Contents

CRC Cards **2**
Frontend 2
Backend 4
System Architecture Diagram (Node.js Layered Arch) **6**
Frontend 6
Architecture 6
Backend 7
Server Endpoints & Descriptions 7
Database Schema Models 8
Architecture 9

CRC Cards

Frontend



services

backend

Responsibility:
- Get health info from backend and send the info to frontend.

Collaborators:
N/A

login

Responsibility:
- Send login info from frontend to backend and receive token info.
- Receive error info from backend, if any.

Collaborators:
N/A

signup

Responsibility:
- end user info from frontend to backend for register operation.
- Receive error info from backend, if any.

Collaborators:
N/A

postService

Responsiblity:
- Accept user input detailing a service
- Send service details to backend to process

Collaboratos:
N/A

getService

Responsiblity:
- Receive a list of services that are being provided

Collaboratos:
N/A

deleteService

Responsiblity:
- Send service id to backend to delete

Collaboratos:
N/A

upload

- Send image of gov id from frontend to backend.
- Receive error info from backend, if any.

Collaborators:
N/A

purchase

Responsibility:
- Send request to backend to purchase service or product

Collaboratos:
N/A

deleteProduct

Responsiblity:
- Send product id to backend to delete

Collaboratos:
N/A

resetPassword

Responsibility:
- Accept email of account to reset
- Send request to backend

Collaborators:
N/A

postProduct

Responsibility:
- Accept user input detailing a product
- Send product details to backend to process

Collaboratos:
N/A

getProduct

Responsiblity:
- Receive a list of products that are being provided

Collaboratos:
N/A

getCart

Responsibility:
- get list of services and products in a users cart

Collaborators:
N/A

postCart

Responsibility:
- allow users to modify their cart (update, delete, etc.)

Collaborators:
N/A

redux

userCredential

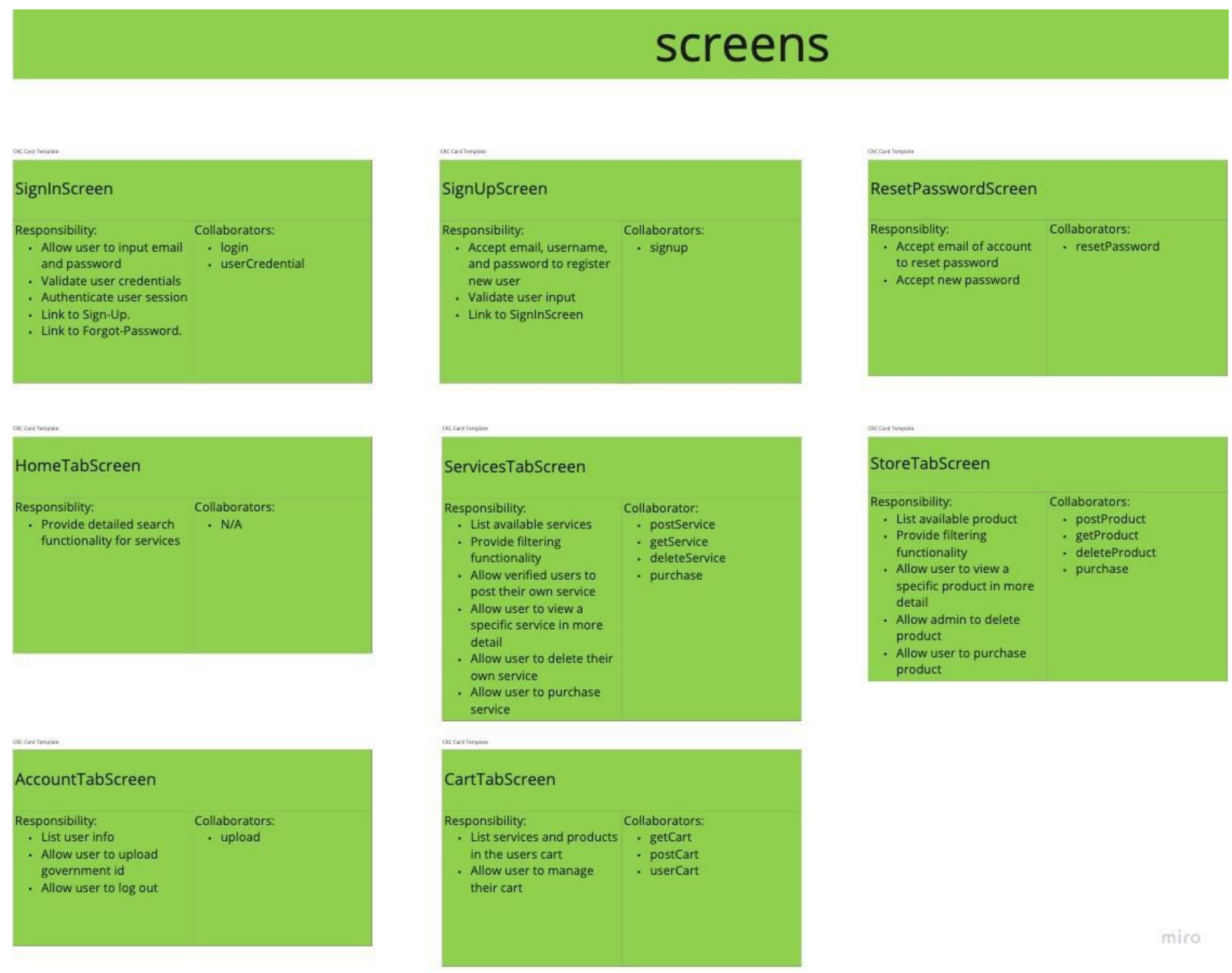
Responsibility:
- hold userToken (initially null)
- Add token
- Clear token

Collaborators:
N/A

userCart

Responsibility:
- Manage services and products in user cart

Collaborators:
N/A



screens

CRC Card Template

SignInScreen

Responsibility:	Collaborators:
• Allow user to input email and password • Validate user credentials • Authenticate user session • Link to Sign-Up. • Link to Forgot-Password.	• login • userCredential

CRC Card Template

SignUpScreen

Responsibility:	Collaborators:
• Accept email, username, and password to register new user • Validate user input • Link to SignInScreen	• signup

CRC Card Template

ResetPasswordScreen

Responsiblity:	Collaborators:
• Accept email of account to reset password • Accept new password	• resetPassword

CRC Card Template

HomeTabScreen

Responsiblity:	Collaborators:
• Provide detailed search functionality for services	• N/A

CRC Card Template

ServicesTabScreen

Responsibility:	Collaborator:
• List available services • Provide filtering functionality • Allow verified users to post their own service • Allow user to view a specific service in more detail • Allow user to delete their own service • Allow user to purchase service	• postService • getService • deleteService • purchase

CRC Card Template

StoreTabScreen

Responsibility:	Collaborators:
• List available product • Provide filtering functionality • Allow user to view a specific product in more detail • Allow admin to delete product • Allow user to purchase product	• postProduct • getProduct • deleteProduct • purchase

CRC Card Template

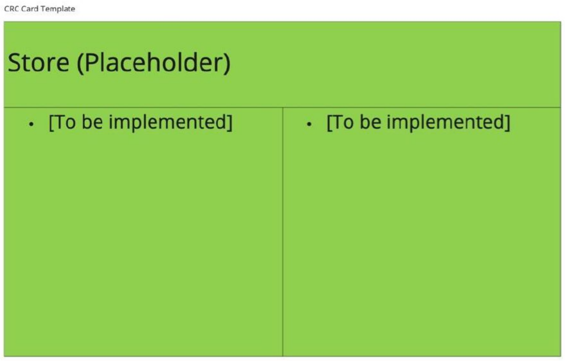
AccountTabScreen

Responsibility:	Collaborators:
• List user info • Allow user to upload government id • Allow user to log out	• upload

CRC Card Template

CartTabScreen

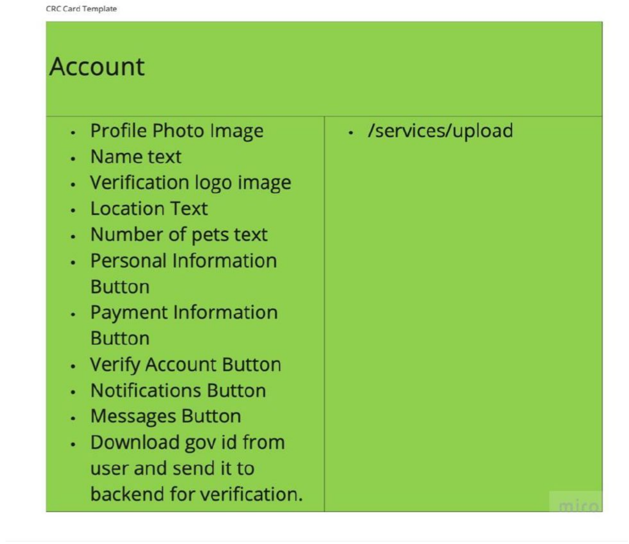
Responsibility:	Collaborators:
• List services and products in the users cart • Allow user to manage their cart	• getCart • postCart • userCart



CRC Card Template

Store (Placeholder)

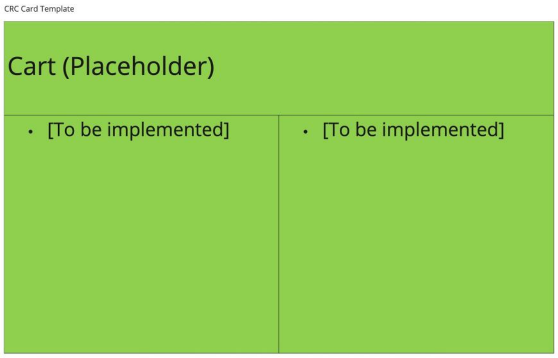
• [To be implemented]	• [To be implemented]



CRC Card Template

Account

• Profile Photo Image • Name text • Verification logo image • Location Text • Number of pets text • Personal Information Button • Payment Information Button • Verify Account Button • Notifications Button • Messages Button • Download gov id from user and send it to backend for verification.	• /services/upload

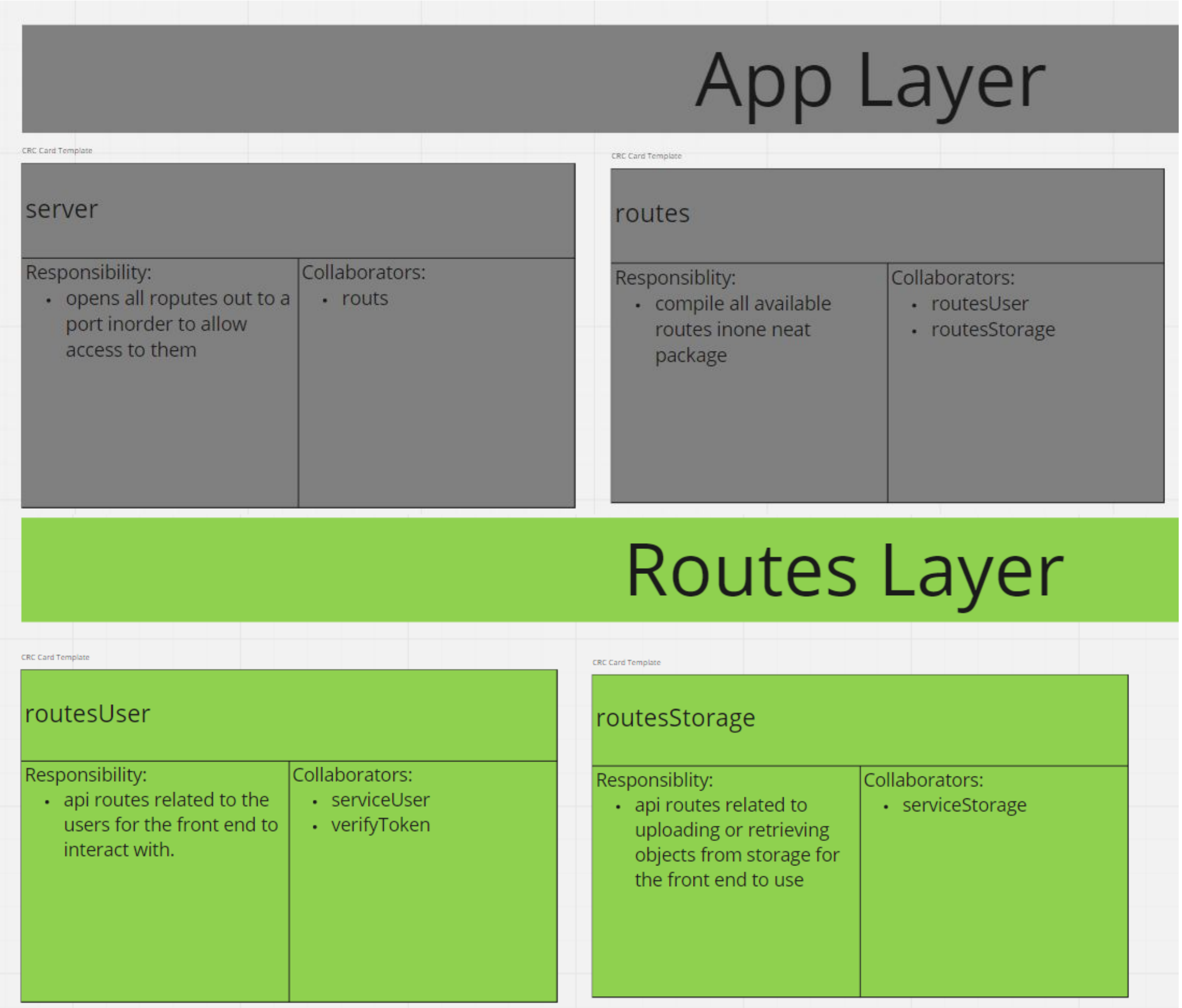


CRC Card Template

Cart (Placeholder)

• [To be implemented]	• [To be implemented]

Backend



App Layer

CRC Card Template

server

Responsibility:
- opens all ropутes out to a port inorder to allow access to them

Collaborators:
- routs

CRC Card Template

routes

Responsiblity:
- compile all available routes inone neat package

Collaborators:
- routesUser
- routesStorage

Routes Layer

CRC Card Template

routesUser

Responsibility:
- api routes related to the users for the front end to interact with.

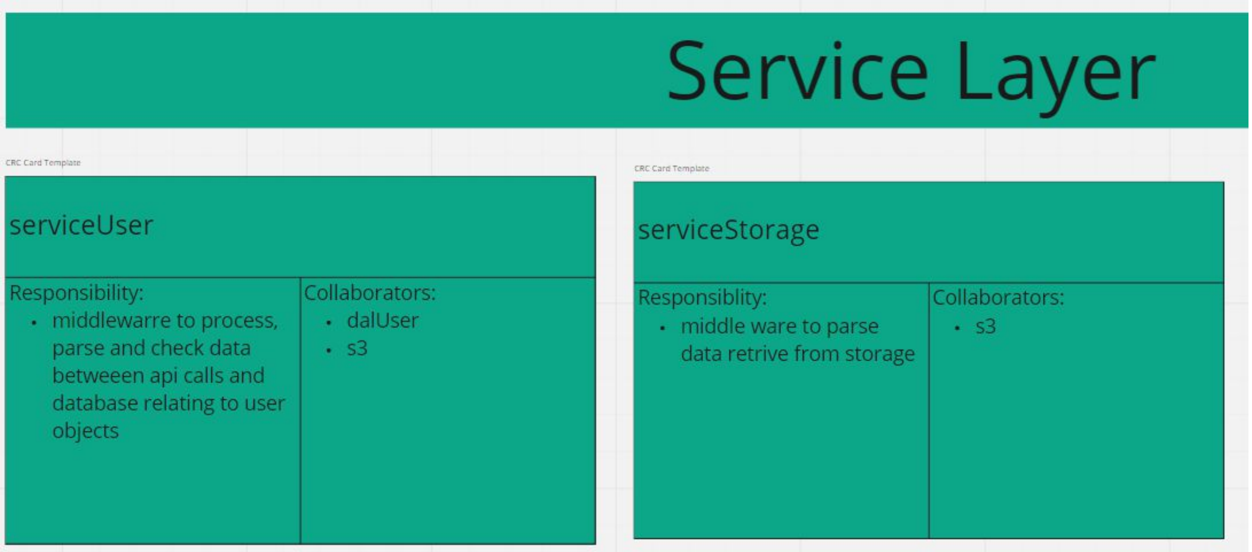
Collaborators:
- serviceUser
- verifyToken

CRC Card Template

routesStorage

Responsiblity:
- api routes related to uploading or retrieving objects from storage for the front end to use

Collaborators:
- serviceStorage



Service Layer

CRC Card Template

serviceUser

Responsibility:
- middlewarre to process, parse and check data betweeen api calls and database relating to user objects

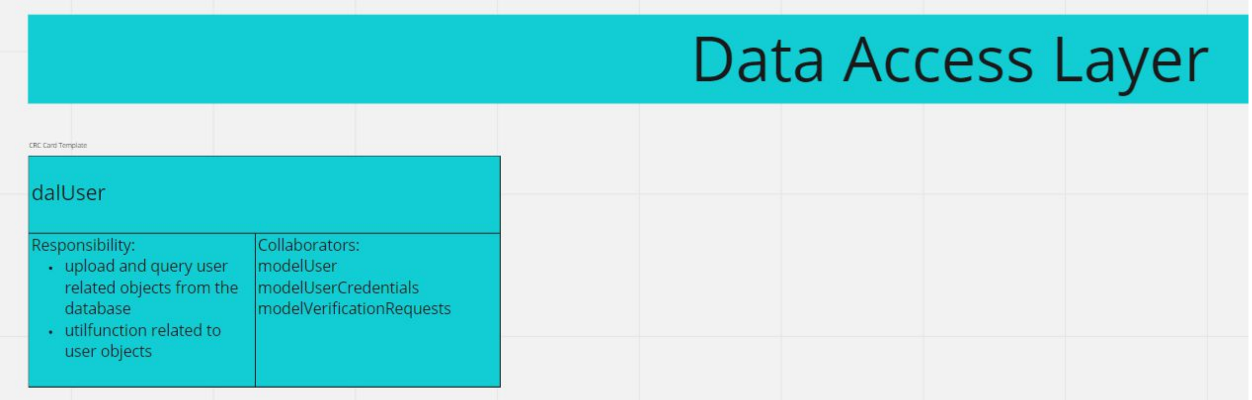
Collaborators:
- dalUser
- s3

CRC Card Template

serviceStorage

Responsiblity:
- middle ware to parse data retrive from storage

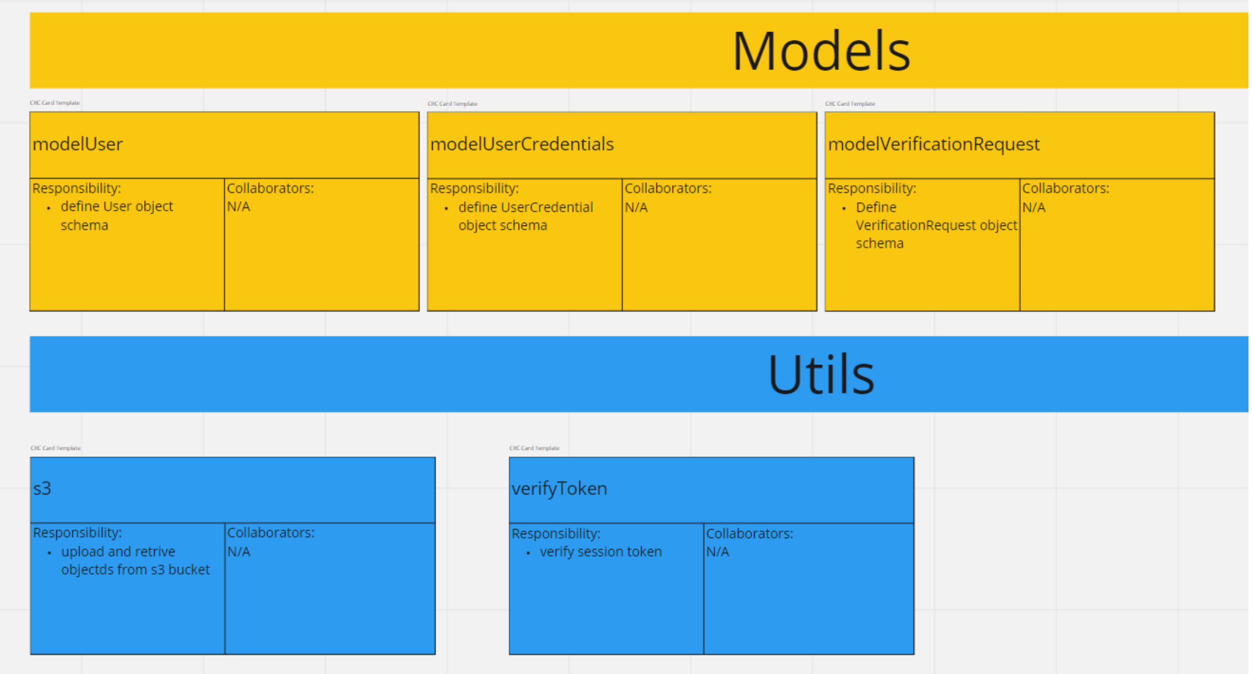
Collaborators:
- s3



Data Access Layer

CRC Card Template

dalUser	
Responsibility: • upload and query user related objects from the database • utilfunction related to user objects	Collaborators: modelUser modelUserCredentials modelVerificationRequests



Models

CRC Card Template

modelUser	
Responsibility: • define User object schema	Collaborators: N/A

CRC Card Template

modelUserCredentials	
Responsibility: • define UserCredential object schema	Collaborators: N/A

CRC Card Template

modelVerificationRequest	
Responsibility: • Define VerificationRequest object schema	Collaborators: N/A

Utils

CRC Card Template

s3	
Responsibility: • upload and retrive objectds from s3 bucket	Collaborators: N/A

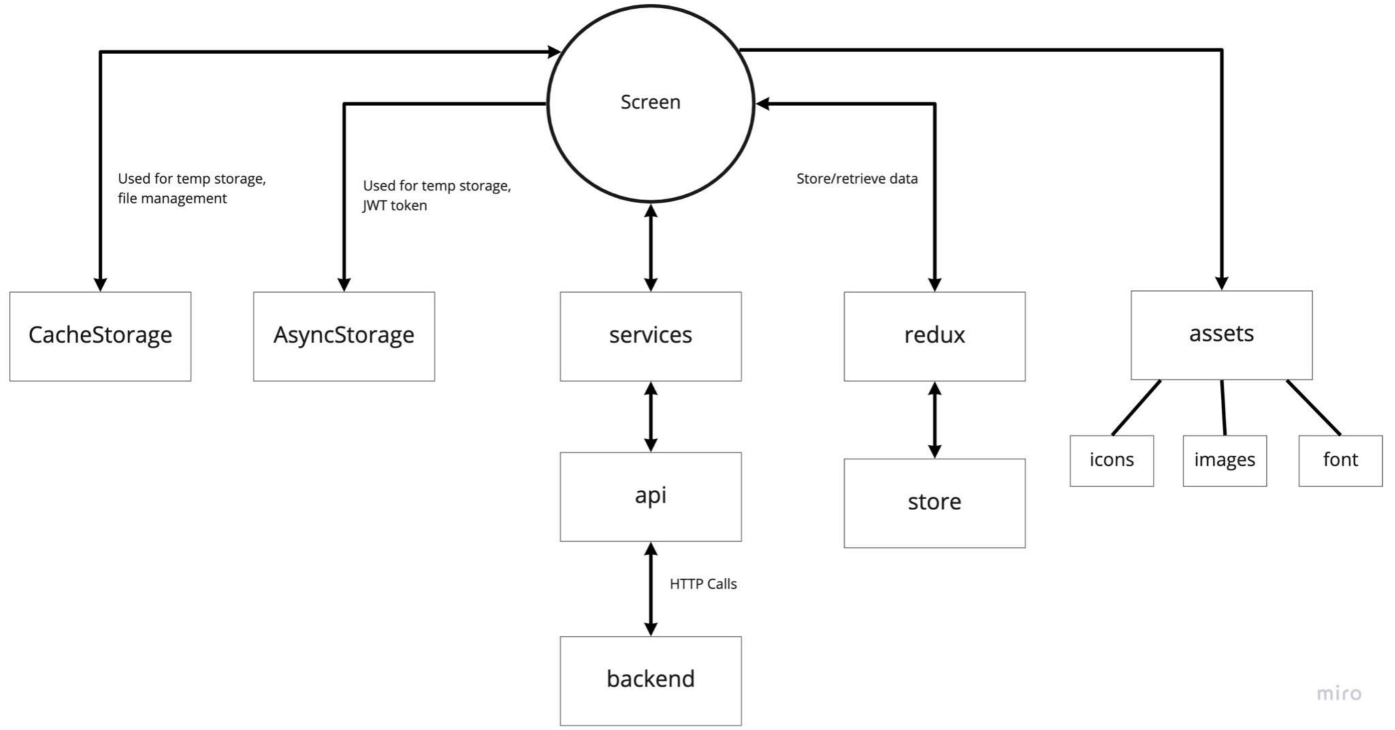
CRC Card Template

verifyToken	
Responsibility: • verify session token	Collaborators: N/A

System Architecture Diagram (Node.js Layered Arch)

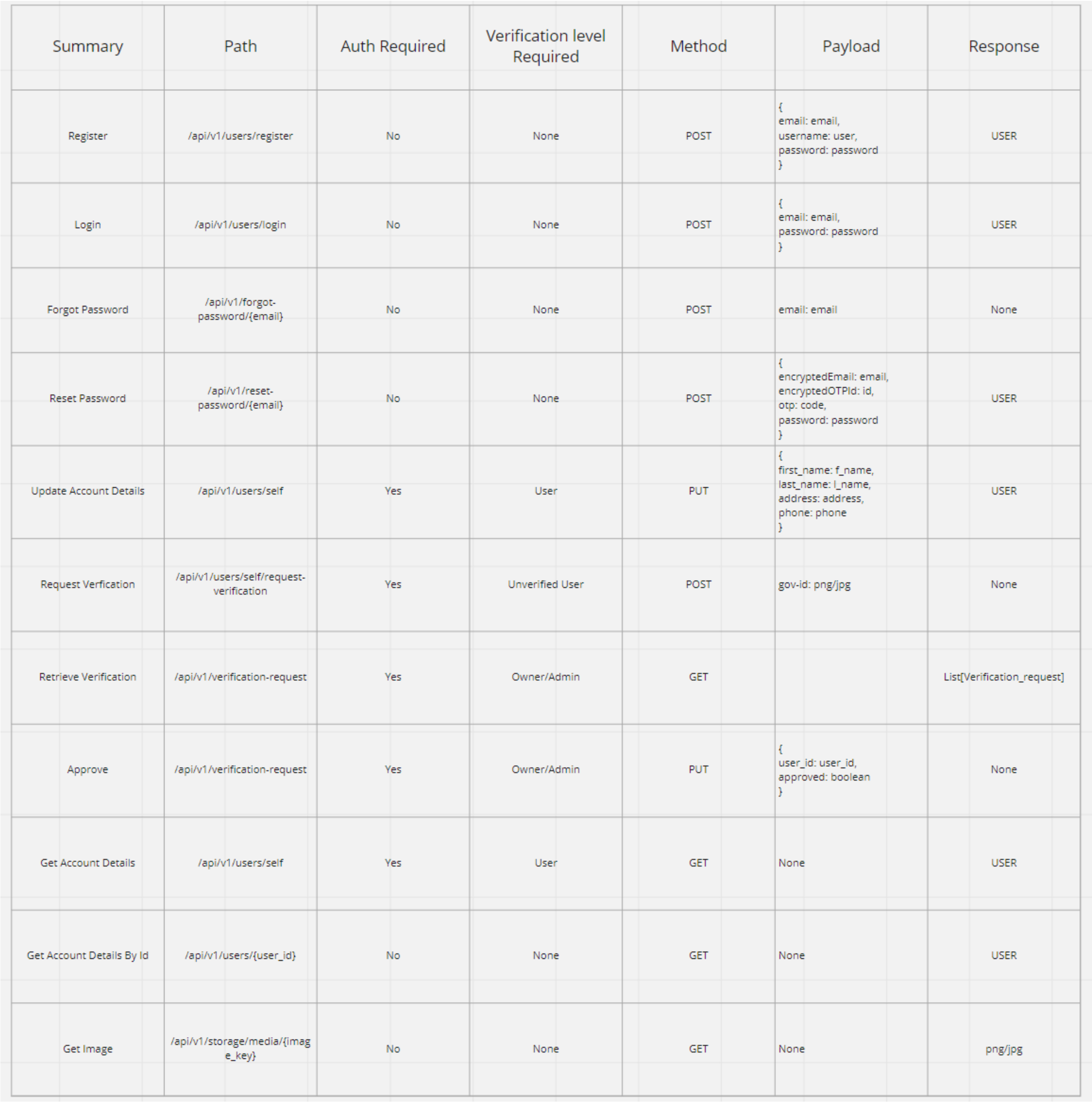
Frontend

Architecture



Backend

Server Endpoints & Descriptions



Summary	Path	Auth Required	Verification level Required	Method	Payload	Response

Register	/api/v1/users/register	No	None	POST	{
					email: email,
					username: user,
					password: password
					}
						USER

Login	/api/v1/users/login	No	None	POST	{
					email: email,
					password: password
					}
						USER

Forgot Password	/api/v1/forgot-password/{email}	No	None	POST	email: email	None

Reset Password	/api/v1/reset-password/{email}	No	None	POST	{
					encryptedEmail: email,
					encryptedOTPId: id,
					otp: code,
					password: password
					}
						USER

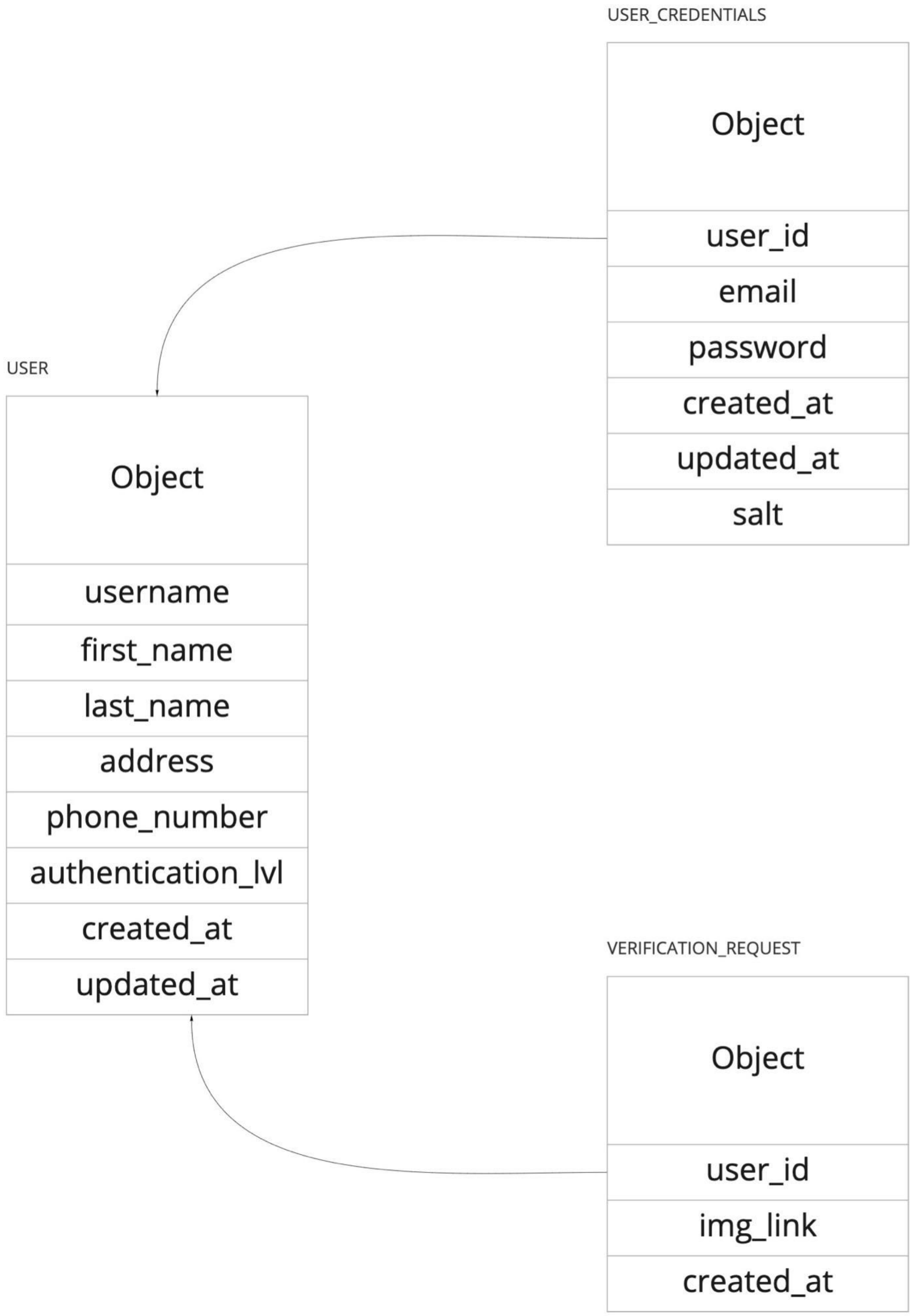
Update Account Details	/api/v1/users/self	Yes	User	PUT	{
					first_name: f_name,
					last_name: l_name,
					address: address,
					phone: phone
					}
						USER

Request Verfication	/api/v1/users/self/request-verification	Yes	Unverified User	POST	gov-id: png/jpg	None
Retrieve Verification	/api/v1/verification-request	Yes	Owner/Admin	GET		List[Verification_request]

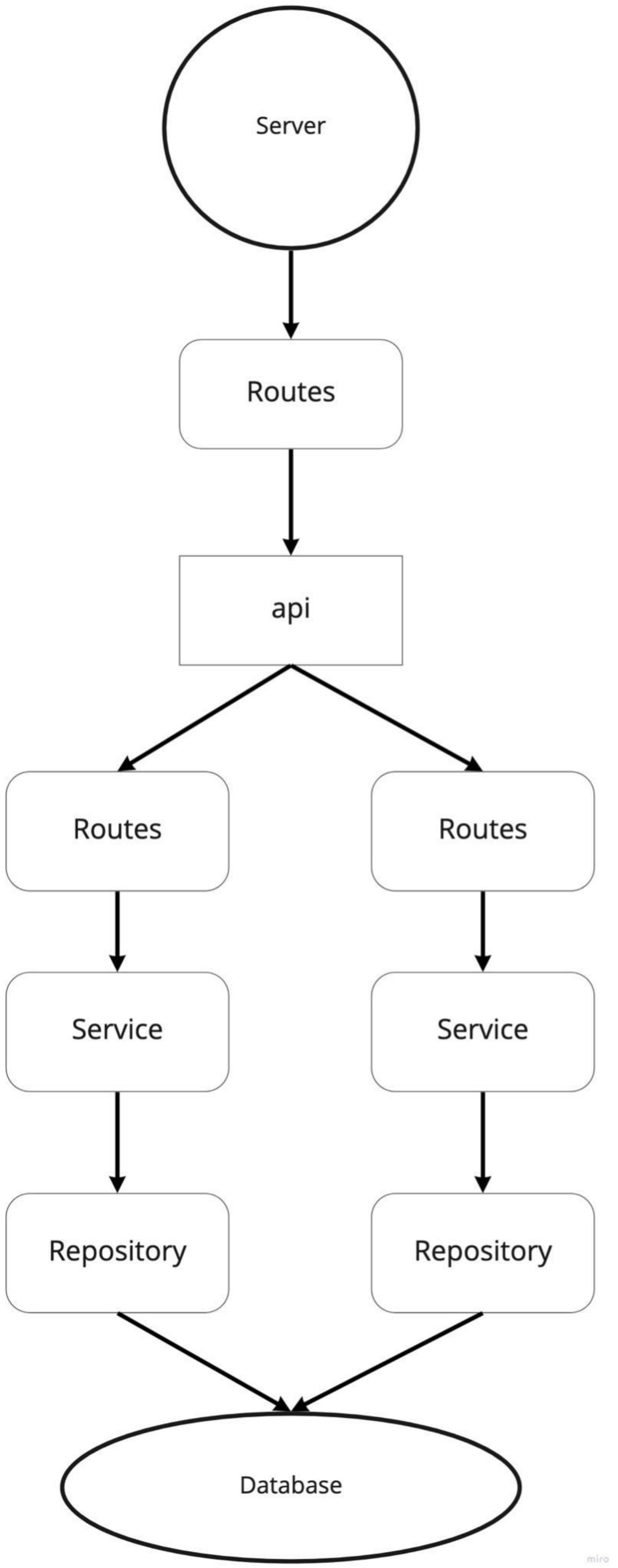
Approve	/api/v1/verification-request	Yes	Owner/Admin	PUT	{
					user_id: user_id,
					approved: boolean
					}
						None

Get Account Details	/api/v1/users/self	Yes	User	GET	None	USER
Get Account Details By Id	/api/v1/users/{user_id}	No	None	GET	None	USER
Get Image	/api/v1/storage/media/{image_key}	No	None	GET	None	png/jpg

Database Schema Models



Architecture


Server
Routes
api
Routes
Routes
Service
Service
Repository
Repository
Database
miro