Image Data Handling System for Research

Group 14

Our team

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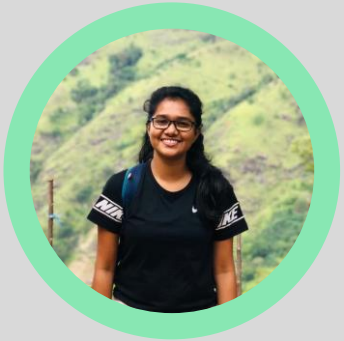
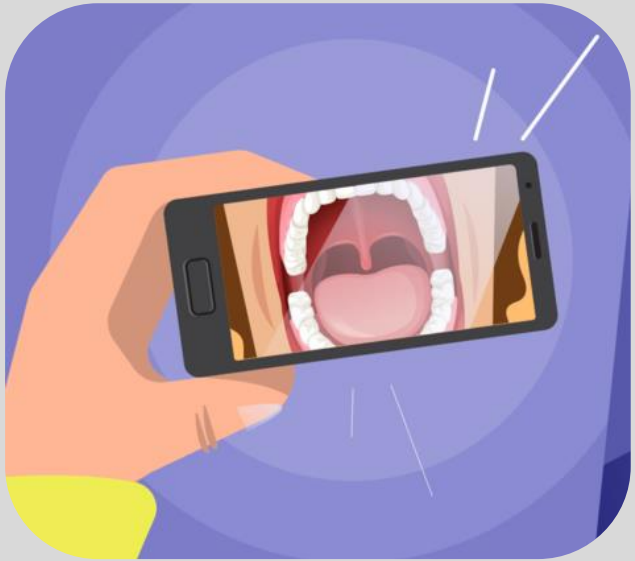


Nethmi
E/18/282

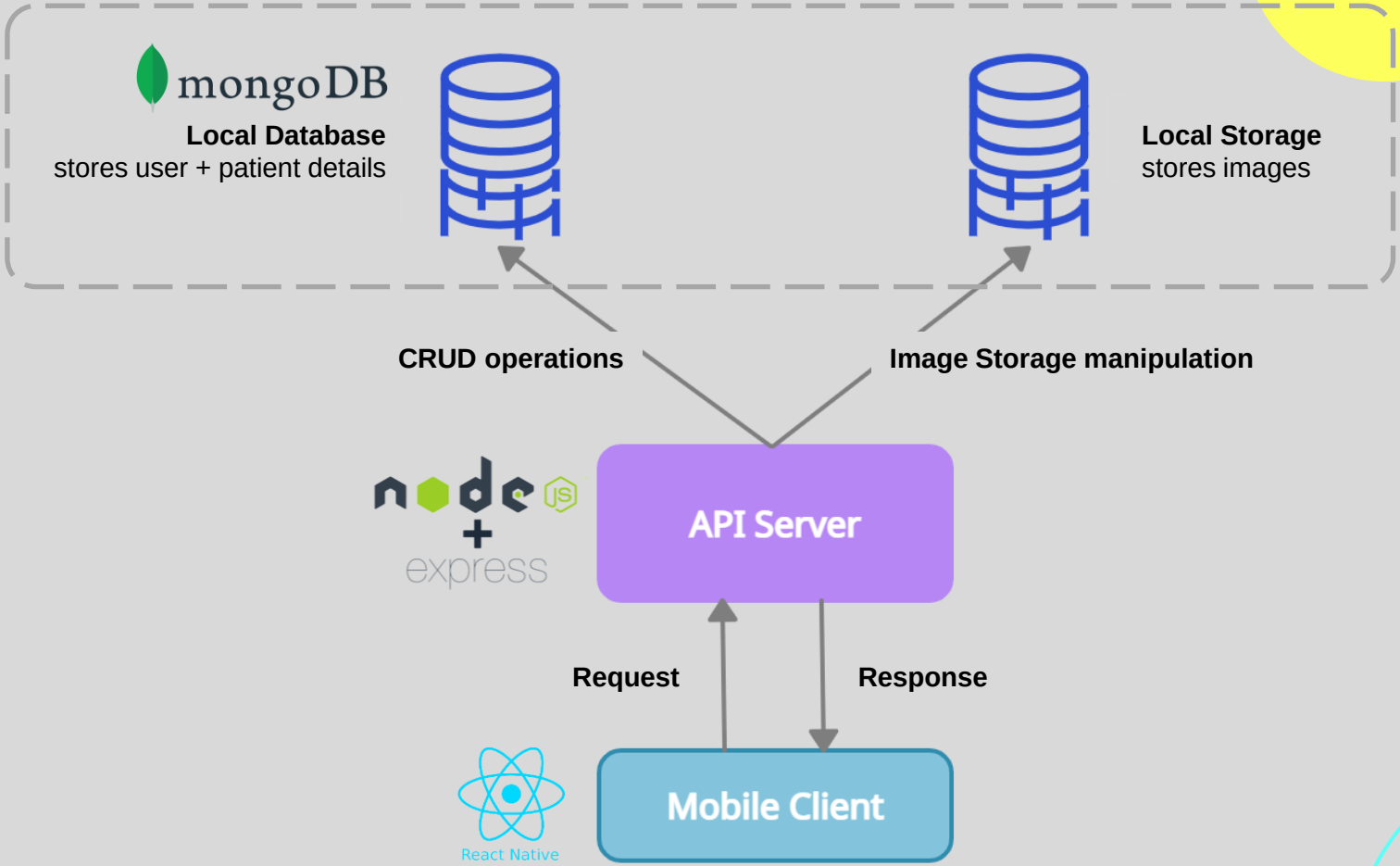
Our Project is ...

Building up a mobile application to capture the oral cavity images and upload them into a central database.

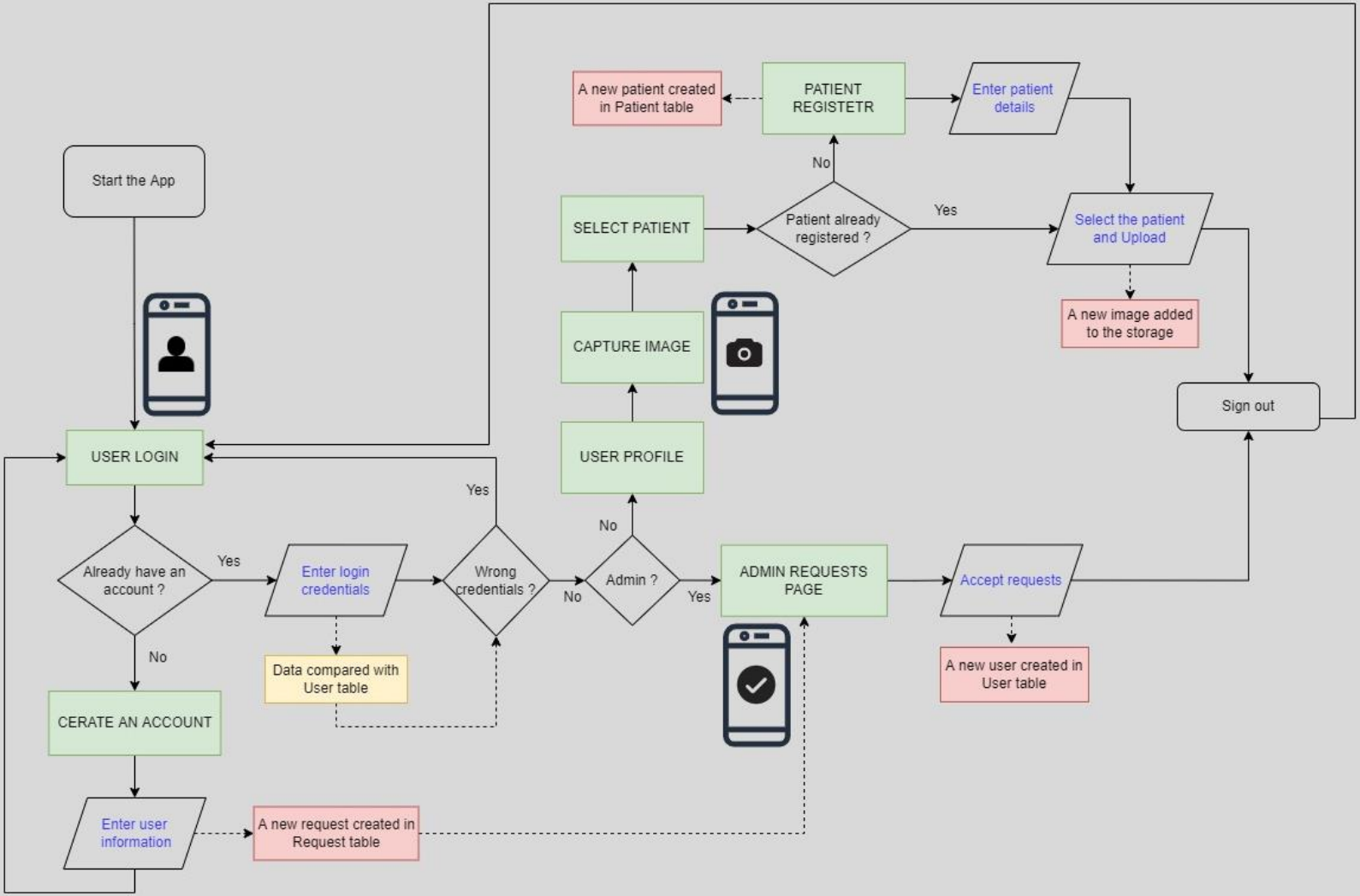
These images can be later used to test an AI based Oral Cavity Region Detection tool.



Solution Architecture


mongoDB
Local Database
stores user + patient details
Local Storage
stores images
CRUD operations
Image Storage manipulation
node
express
API Server
Request
Response
React Native
Mobile Client

Data & Control Flow


Start the App
USER LOGIN
Already have an account ?
Yes
No
Enter login credentials
Data compared with User table
Wrong credentials ?
Yes
No
CERATE AN ACCOUNT
Enter user information
A new request created in Request table
Admin ?
No
Yes
USER PROFILE
CAPTURE IMAGE
SELECT PATIENT
Patient already registered ?
No
Yes
A new patient created in Patient table
PATIENT REGISTETR
Enter patient details
Select the patient and Upload
A new image added to the storage
ADMIN REQUESTS PAGE
Accept requests
A new user created in User table
Sign out

To Enhance User Experience ...

The User Interface

- Simple & Attractive
- User friendly

Available for both iOS and Android users

Ensure Security of user/image details

- JSON web token system to handle authorization
- Passwords encrypted
- Strict and limited access to Patient Metadata

Include Image pre-processing tools

Release Plan

Sprint 1

- ✓ UI design
- ✓ API design

Sprint 2

- ✓ User authentication
- ✓ Admin functions

Sprint 3

- ○ Upload images
- ○ Handle Metadata

Sprint 4

- ○ Build Image pre-processing tools

Demonstration

For more details ...

Our GitHub Repository:

https://github.com/cepdnaclk/e18-co227-Image-Data-Handling-System-for-Research-Group-B

Our Project Page:

https://cepdnaclk.github.io/e18-co227-Image-Data-Handling-System-for-Research-Group-B/

Q & A

Thank You...!