National Storage Centre: Health Records

Theme

Healthcare

Problem

> Develop an online system for electronic health records of the citizens of the country with previous medical history.

What is EMR/EHR?

The EMR/EHR [electronic medical records/electronic health records] system enables physicians to record patient histories, display test results, write prescriptions, enter orders, receive clinical reminders, use decision-support tools, and print patient instructions and educational materials.

Solution

An electronic medical record includes information about a patient's health history, such as diagnoses, medicines, tests, allergies, immunizations, and treatment plans. Also called EHR and electronic health record.

So, We built a web app from scratch, to counter this issue.

"National Storage Centre for Health Records", in short, **NSCHR**

A Web app built using various technologies to provide fast, accurate information about a patient right in front of Medical Practitioner in just a matter of few clicks!

Our solution is a gamified experience that enables the Employee (Medical Practitioner) of a hospital to easily fetch all the medical history of a patient quickly!

From fetching vitals of a patient to fetching their past prescriptions and allergies, all can be done with just a click!

What Medical Records comprises of?

Assessments

1. Vital Reports
2. Chief Complaints
3. Diagnosis
4. Pain Assessments

Prescriptions

1. Medications
2. Clinical Orders
3. Diet Orders

Patient Documents

1. Prescriptions PDF
2. Allergy Reports
3. Lab Reports
4. Discharge Summaries

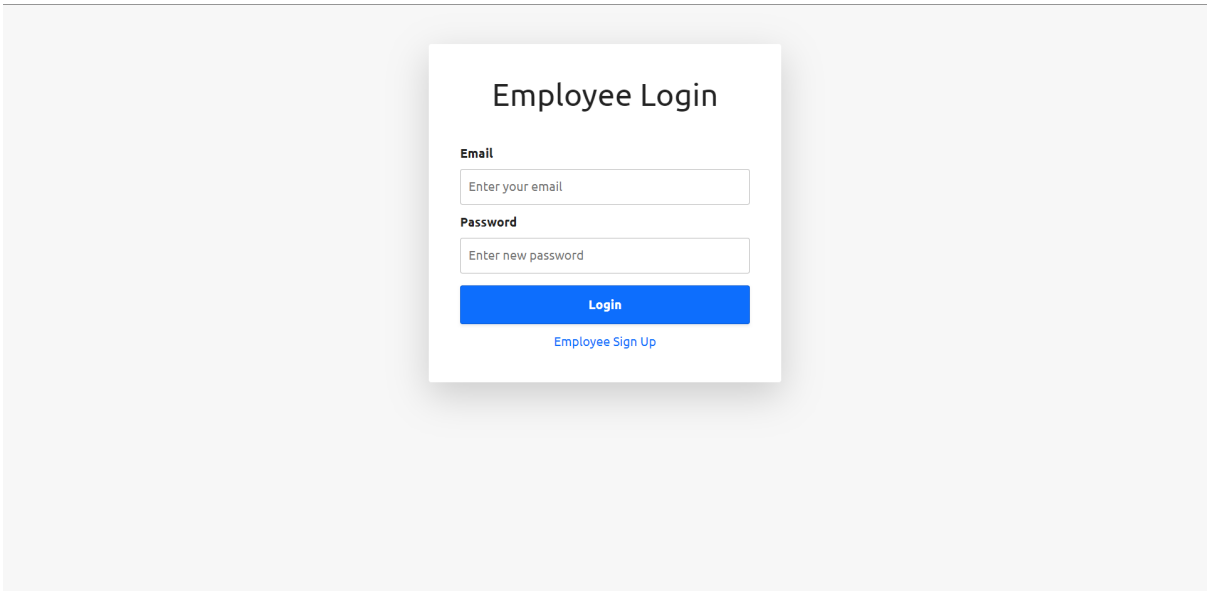
Working

Flow

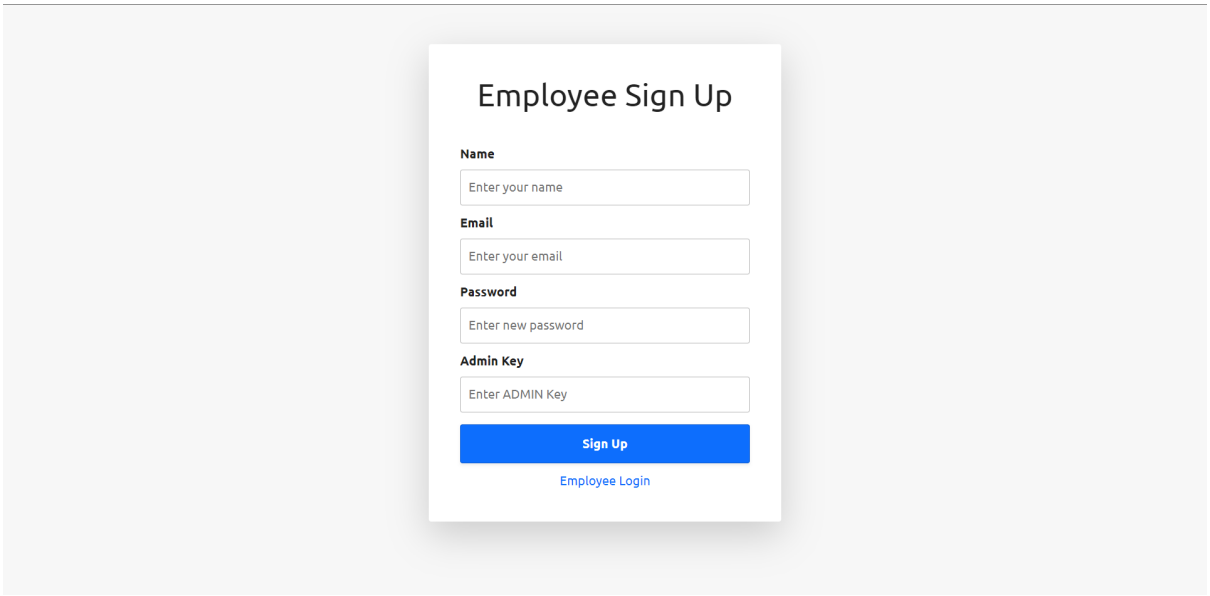
1. An admin of the hospital may create credentials of an employee/medical practitioner using an admin key, to prevent illegal signups.
2. Then that employee/medical practitioner may login with those credentials to get to the Main Portal.
3. Once the portal is opened, he/she now has the option to enter the UHID (Aadhar in this case) of the patient to look up his/her details, and electronic medical/health records.
4. After landing upon the dashboard page, the user can see various types of categories available under which different reports are present, for e.g: Vital Reports section, diagnosis section, etc.
5. A new report can also be added using the "New Report +" button which will lead the user to upload new report form, where one can add a report name, additional comments, and pdf file which in this case is a report. This is same for all the different sections.
6. If the doctor wants register a new patient, he/she may click on the patient registration tab on the main dashboard as well as on the subsequent pages.

Example Screenshots

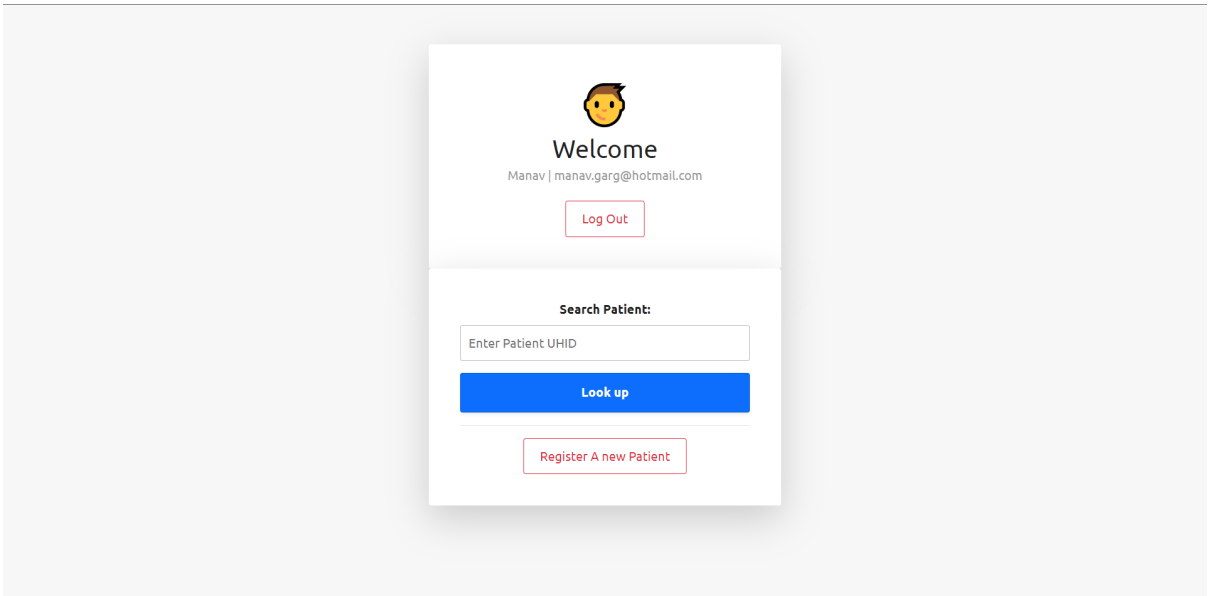
Employee Login



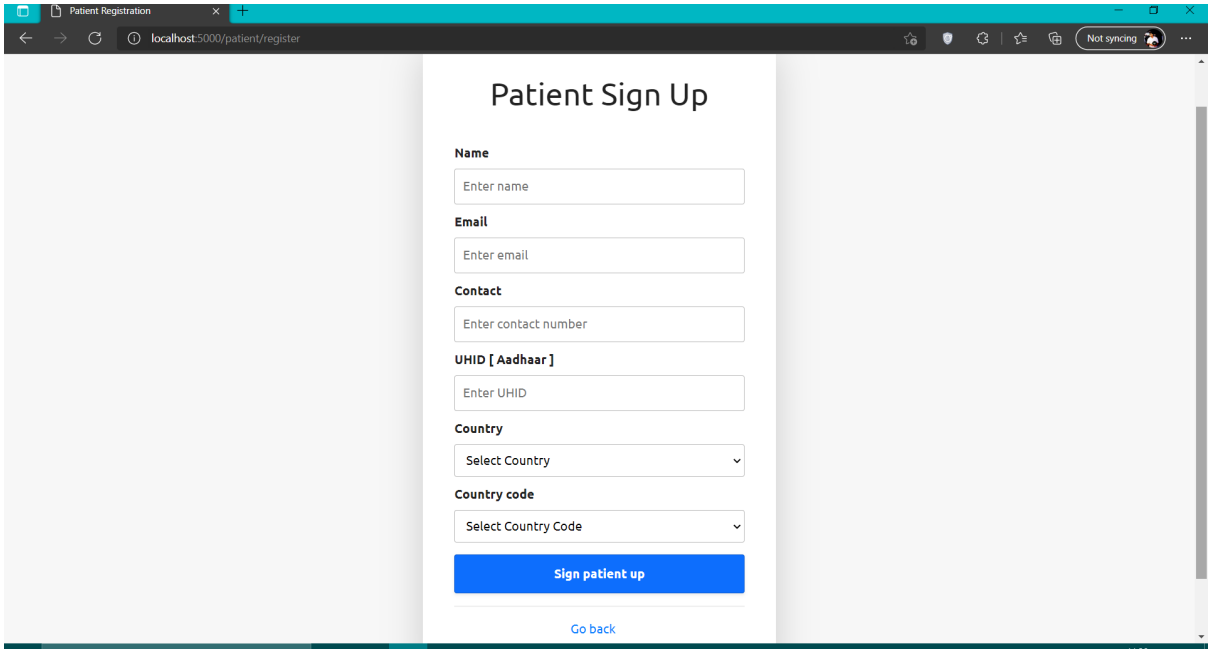
Employee Signup



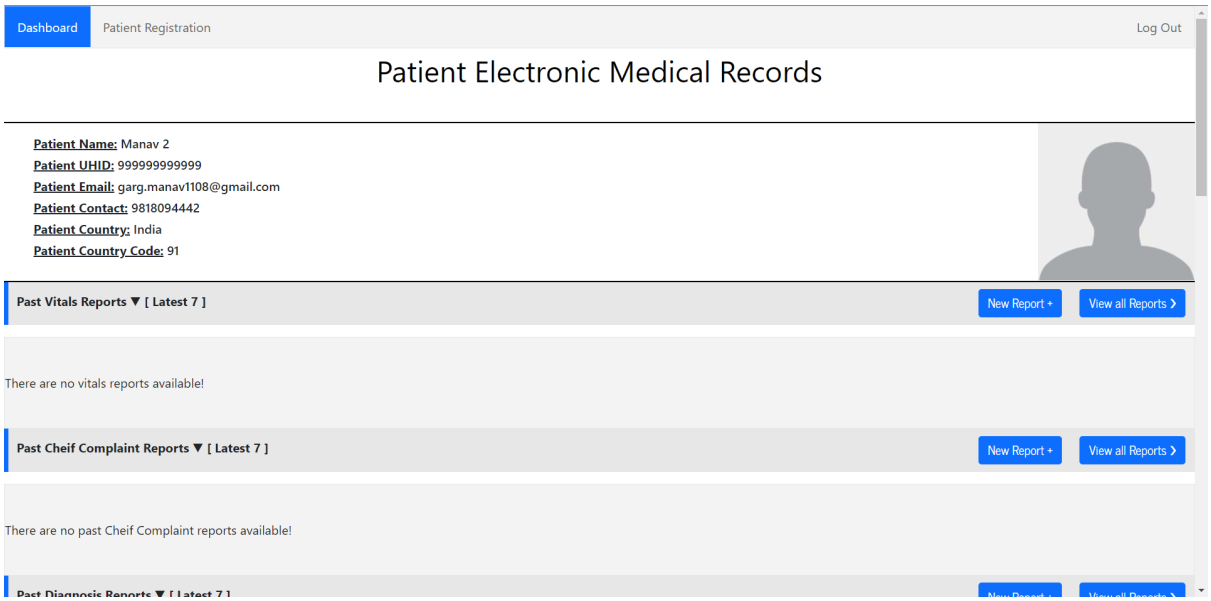
Employee Dashboard [Main Dashboard]



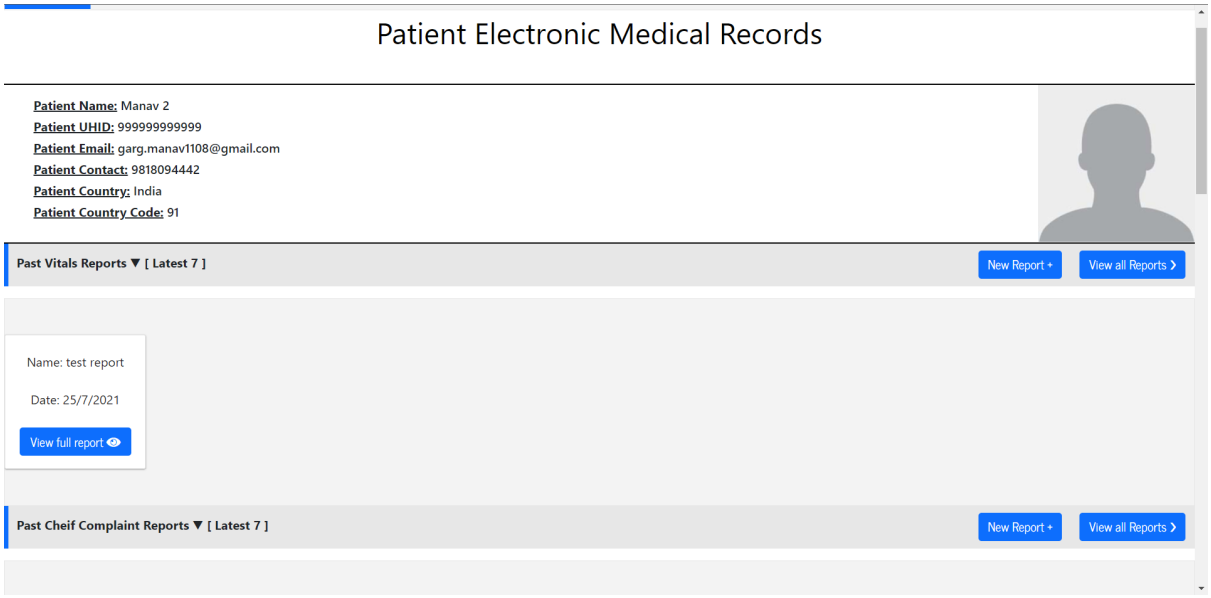
Patient Registration



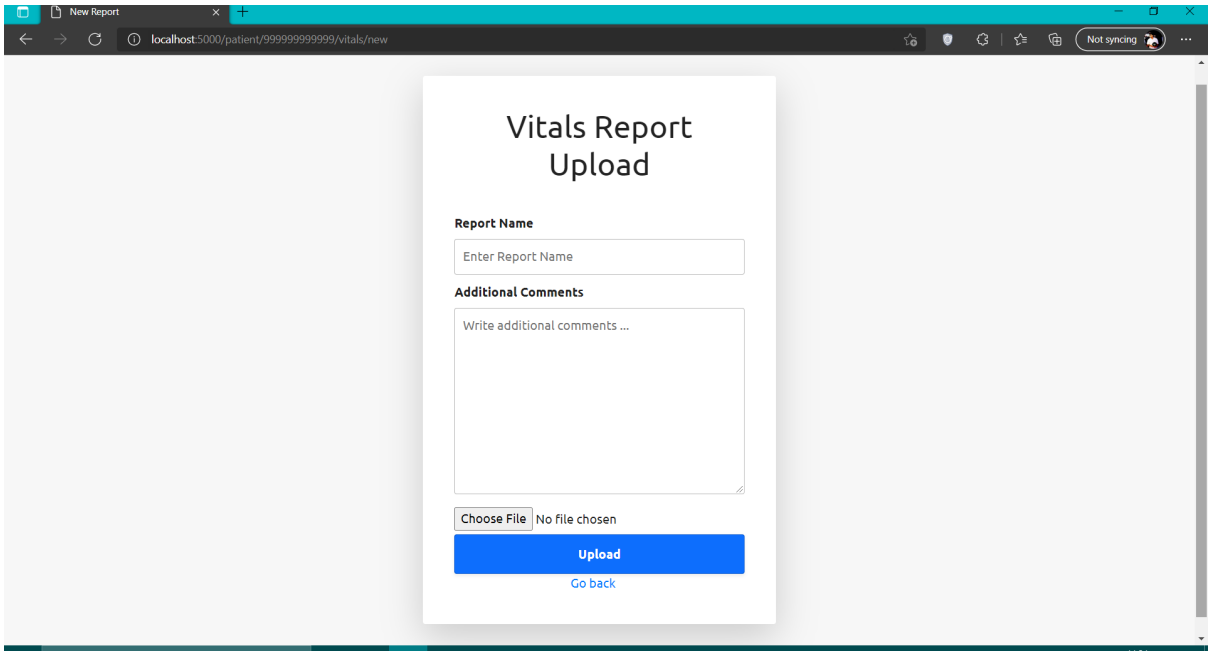
Patient Profile [Before uploading any reports]

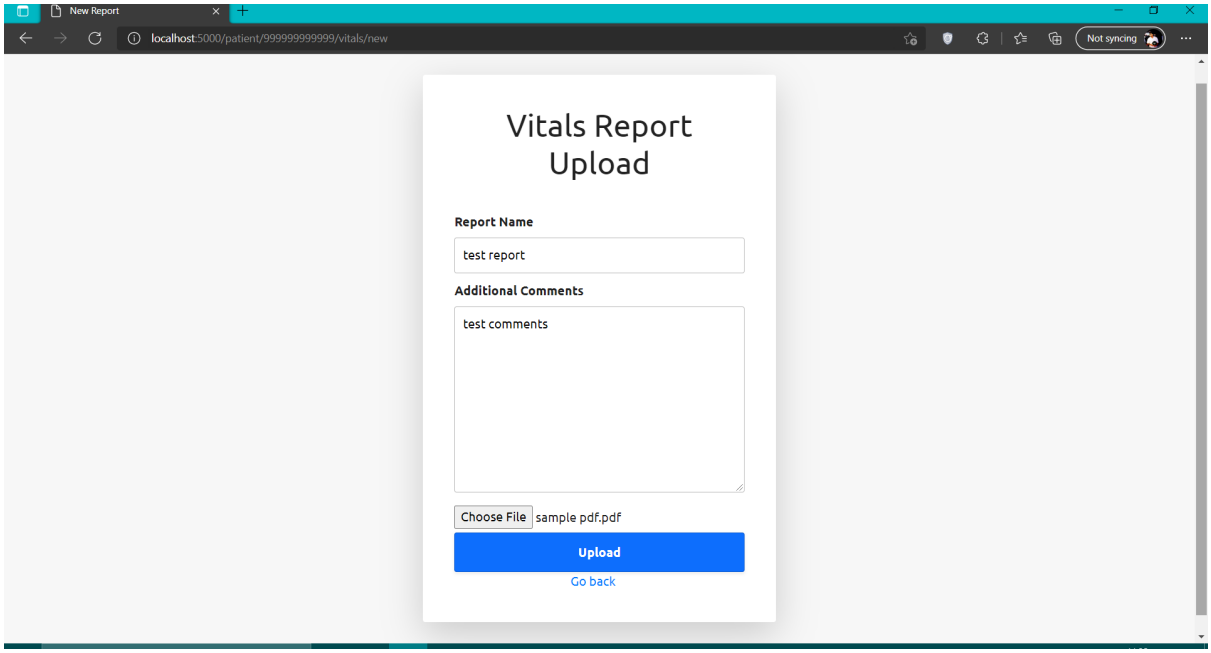


Patient Profile [After uploading a report]

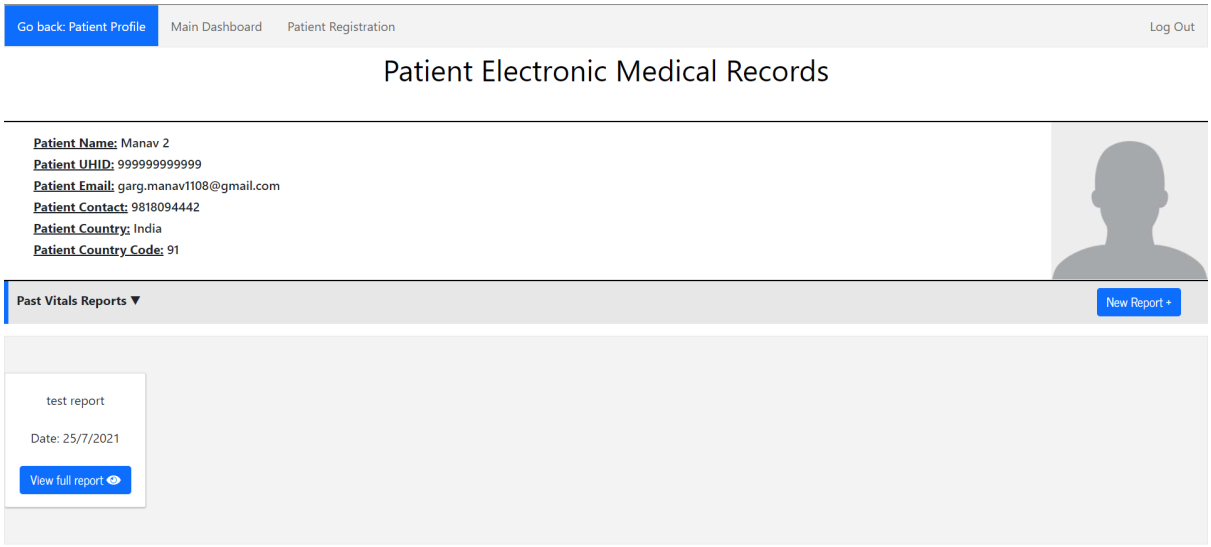


New Report Page [Same format for all the categories]

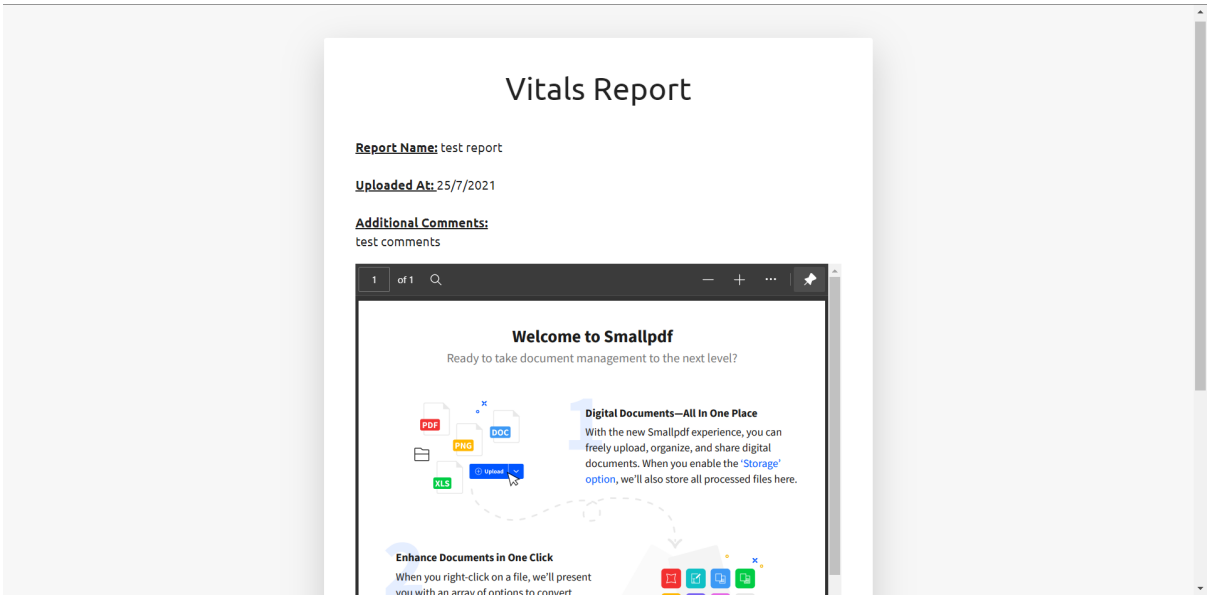




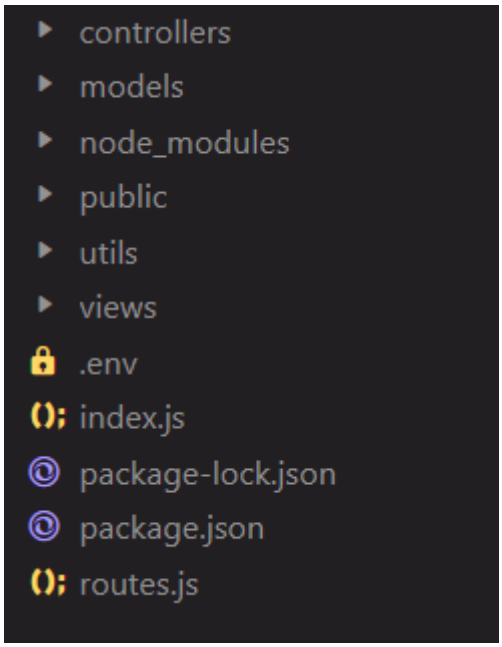
Category Page [For e.g: to see all reports in a particular category (Same for all other categories)]



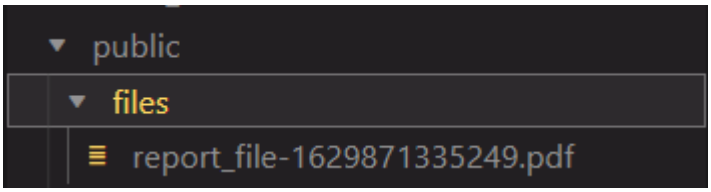
Report Layout, where the actual report is displayed



File structure of the app [in VSCode]



Location where the uploaded PDFs are saved



Demo

URL: https://youtu.be/MW7uK-72I9I

Tech Stack

1. NodeJS
2. ExpressJS
3. Embedded Javascript
4. Javascript
5. MySQL
6. MongoDB

Different Libraries Used

1. Bcryptjs - for hashing passwords
2. body-parser
3. cors
4. dotenv - for environment variables
5. ejs
6. express
7. express-session - to locally store an employee session to keep him logged in.
8. mongoose - for storing patient data in MongoDB
9. mutler - to handle file uploads
10. mysql2 - advanced nodejs lib to communicate with any MySQL server with promises.

Created By:-

Manav Garg,

Github: https://github.com/ManavvGarg

Instagram: https://instagram.com/manavvgarg