CURA-HMS

AGENDA

AGENDA

- Improvements from Professor Feedback
- Problem Statement
- Project description
- Personas
- Sprint 5 Recap
- Architecture Diagram
- Technologies
- Algorithms
- Product Backlog
- Sprint Backlog
- Metrics
- Retrospective
- Sprint 6
- Project demo
- Live Application

IMPROVEMENTS FROM PROFESSOR FEEDBACK

Feedback

- Story Points Missing.
- Mention Diagram name.
- Make theme consistent .
- Title for every slide and manage color coordination.
- Mention sprint number in sprint backlog.
- Remove place column from user stories and acceptance criteria.
- Sprint backlog should have story points.
- Edit burndown charts, it should have only completed stories.

Improvements

- Story points mentioned to every user story.
- Mentioned diagram name.
- Maintained theme consistency and color coordination.
- Architectural Diagram mentioned.
- Mentioned sprint number in sprint backlog.
- Removed place column from user stories and acceptance criteria.
- Added story points to sprint backlog.
- Edited burndown charts with completed stories.

MEET OUR TEAM

SAI TEJA KORIBILLI
SCRUM MASTER
DATA BASE ADMINISTRATOR

BINDU VALISETTY
UI/UX DEVELOPER

KULDEEP KALUVALA
DEVELOPER

MOUNIKA THALLA
PROJECT MANAGER

MEET OUR TEAM

SHIVANSH TOMAR
DEVELOPER

NIKHIL
QUALITY ANALYST ENGINEER

JIGAR SHAH
DEVELOPER

PROBLEM STATEMENT

Most hospitals are still facing several challenges with Hospital Management System because some of them are still using manual processes, while those who are using computerized method are also facing the challenge of adjusting to it. Like:

- The high cost of software development and deployment.
- Complex design in terms of User Interface and User Experience (UI/UX Design)
- Fear of data security breach.
- Difficulty in migrating from manual processes, because both staff and patients are used to the manual processes and so are unable to speedily cope with the new system.
- Lack of IT-friendly medical personnel is also presenting several challenges.
- A Huge influx of patients visiting government hospitals makes the process of migrating to automated processes highly difficult. They do not have the patience to wait for registration and data entry and often fail to understand the functioning of automated processes.

PROJECT DESCRIPTION

CURA helps to automate routine tasks, optimize staff coordination, improve communication, distribute the workload, store different types of information, and provide financial and HR management.

A hospital management system (HMS) is a tool that collects data about patients, doctors, staff, hospital administrative details in one software. One of the biggest advantages of developing a hospital management system is that it makes the whole process paperless.

Finances are another essential side of the hospitals. Apart from administrative, operational, and medical services, healthcare units must cope with billing and insurance operations. Integrating a financial system into a medical organization is vital for its sustainable financial performance.

PERSONAS

CURA

PERSONA 1

Demographics

Name : Disha Shah
Location : New York
Age : 28
Occupation: Doctor

Bio

Disha is a young doctor working at Newyork health center. On daily basis she booked for 30-40 appointments and also attends the emergency patients. She ensures every patient of her treated with correct medication and attention.

Interests

- She loves to stay updated about new medicines and procedures in the medical field.
- She loves to attend music concerts.

Frustrations

- She attends approximately 40 patients in a day, so it is hectic to keep up with the provided schedule.
- Mixing of patient's information may happen resulting in wrong medication.

Goals

- Needs correct information of the patients receives appropriate medication and treatment.
- By using the CURA Hospital Management System, Disha is aided with correct records of the patient.
- Need to have proper inventory information, by using CURA Hospital Management System, Disha has records of the inventory.

PERSONA 2

Demographics

Name : Mary
Location : New York
Age : 81

Bio

Mary lives in New York suffering from Asthma, Lyme diseases and she has to undergo monthly check-ups with the Doctor.

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Interests

- She loves Jazz Music
- She is Die-hard of New York Knicks & frequently goes to matches to cheer them.

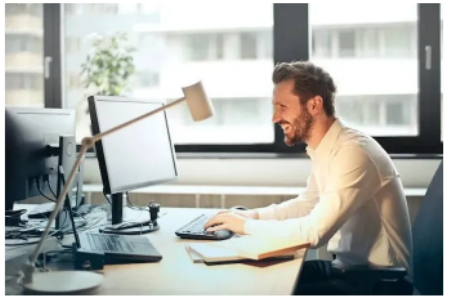
Frustrations

- Every time Mary visits the hospital an appointment forms has to be filled and she is allotted a different doctor.
- She has to wait for long hours to visit the doctor.
- Every week her records get updated which becomes troublesome for her to manage.

Goals

- Needs to fill up the form only once during registration on CURA which saves her time and effort from filling the form every time.
- Through CURA she can book appointment with the preferred doctor.
- CURA provide proper slots to Mary, so she does not have to wait in queues & can also choose online consultation.

PERSONA 3



Demographics

*Name :*Tyler
Location : New York
Age : 38
Occupation : Admin

Bio

Tyler is 38 years old residence of New York working as an Admin who manages the New York Health Center in various ways. He ensures proper stock of medicines and equipment needed in the hospital.

Interests

- He loves pets and frequently visits shelter care on holidays.
- He is shutterbug and loves traveling.

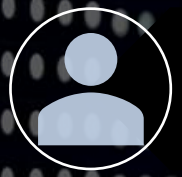
Frustrations

- He manages appointments, inventory and other records on different platforms making it disordered for him.
- He has to be in the hospital to ensure the proper management of the hospital.

Goals

- Needs a single platform where he can manage appointments, Doctor's profile and inventory.
- This problem is solved by CURA Hospital Management System so he can have records of patients, update doctor's profile and also, he allows to simplify all these tasks and remotely as well.

MINIMUM VIABLE PRODUCT

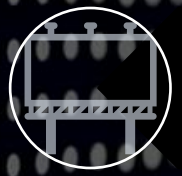


REGISTRATION

- User can register into CURA through this

LOGIN PAGE

- User can log into CURA through this



HOME

- User can surf through CURA features through this

SCHEDULING

- User can plan his schedule using this and work accordingly

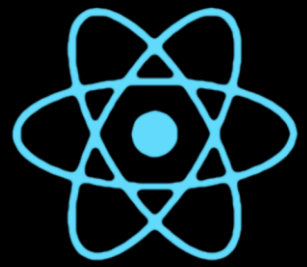
APPOINTMENTS

- User can schedule his appointment with doctor through this

TECHNOLOGIES

JAVA SCRIPT

CUCUMBER



GIT HUB

CURA

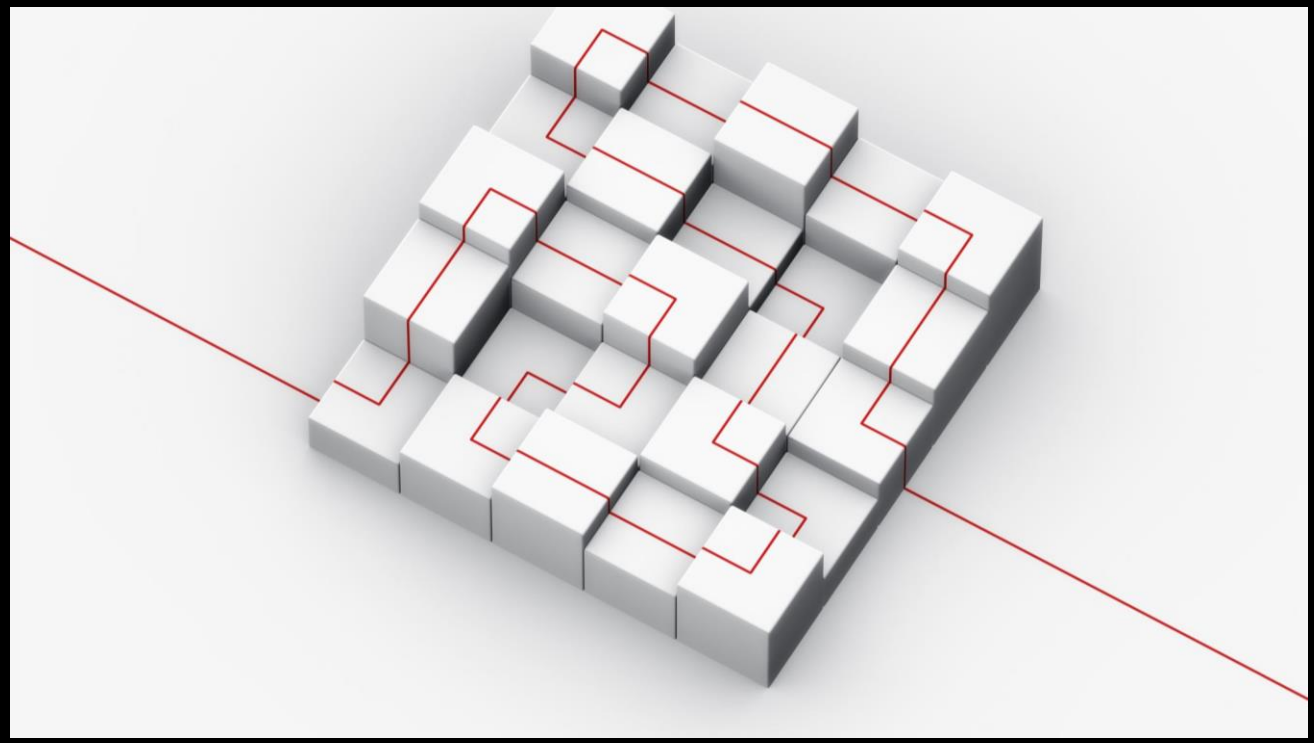
ALGORITHM

- The proposed system has two modules for doctors and patients, providing facilities of appointments schedules, payment, viewing online information, register on hospital website. The whole process of information sharing and processing in this systems is automated through Decision Treel D3 algorithm

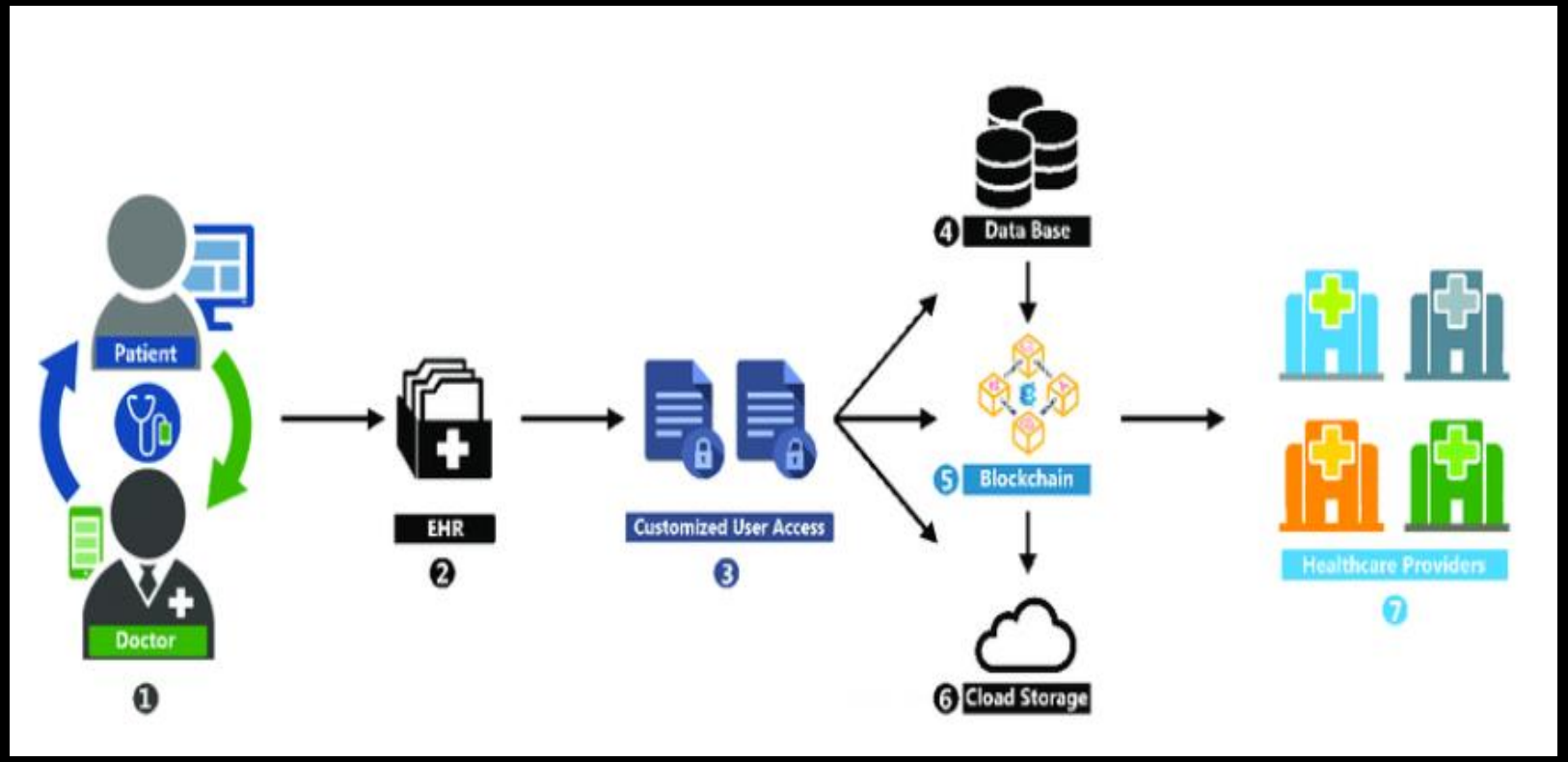
What is ID3 Algorithm ?

- ID3 stands for Iterative Dichotomiser 3 and is named such because the algorithm iteratively (repeatedly) dichotomizes(divides) features into two or more groups at each step.
- ID3 uses a top-down greedy approach to build a decision tree. In simple words, the top-down approach means that we start building the tree from the top and the greedy approach means that at each iteration we select the best feature at the present moment to create a node. Attempts to create the smallest possible decision tree.

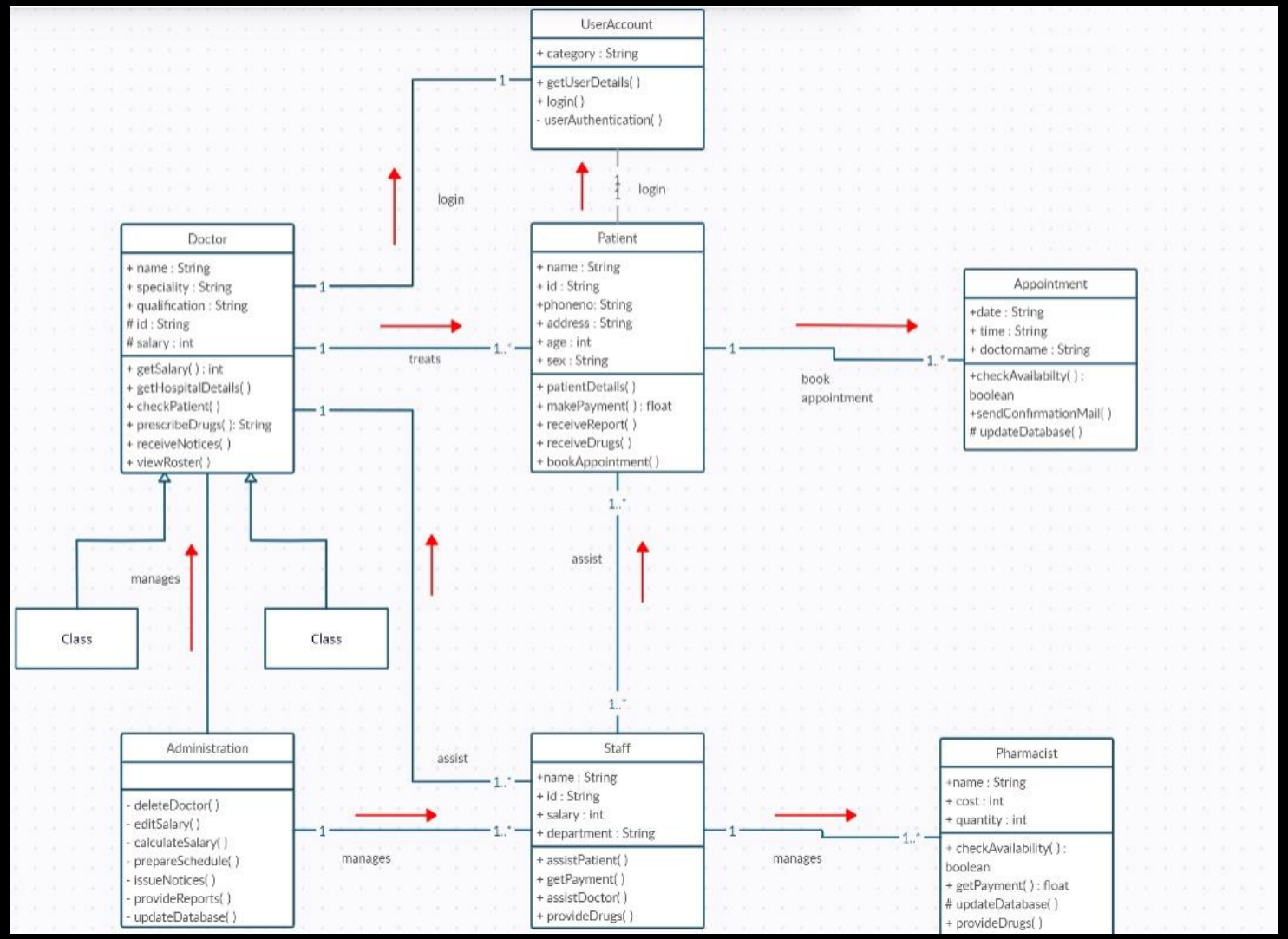
ARCHITECTURAL DIAGRAM



CONCEPTUAL ARCHITECTURAL DIAGRAM

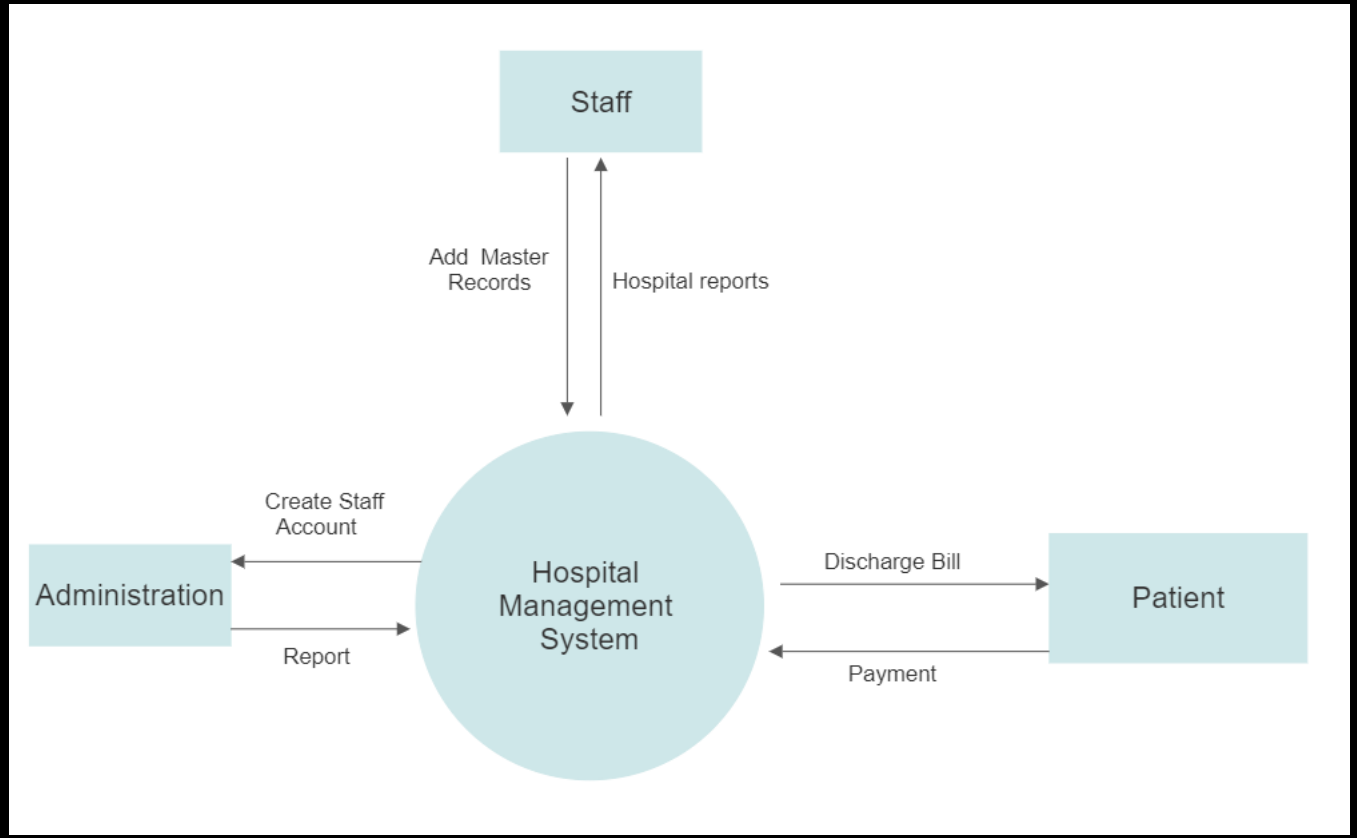


CLASS DIAGRAM



CURA

DATAFLOW DIAGRAM LEVEL 0



SPRINT4 RECAP

- SCHEDULE
- Multiple features like add data
- Created Proper UI

SPRINT 5 VS SPRINT 6

SPRINT 5

- SURFING THROUGH THE OPTIONS ACOORDING TO THE ROLE OF THE PERSON USING THE APPLICATION.
- UPDATING THE CURRENT PROFILE STATUS BY UPLAODING FILES

SPRINT 6

- Updating patient, pathologist and admin modules.
- Improvising backend .

PRODUCT BACKLOG

PRODUCT BACKLOG

Issue Type	ID	Name
Story	CURA-29	As a Doctor, I want to see my particulars/schedule/profile on the application so that I can plan my duties at hospital .
Story	CURA-30	As a Patient, I want to confirm whether my appointment with the doctor is set up or no so that I can have an idea about my appointment with doctor.
Story	CURA-31	As a Patient, I want to submit my symptoms/previous history documents in the portal for assessment so that I may receive a accurate determination.
Story	CURA-32	As an Inventor, I want to know whether the supplies are as per the requirement or no, so that I can re-stock them.
Story	CURA-33	As a Pathologist, I want to know whether samples of the patient are correctly entered or no, so that there is no confusion with patient's details with others.
Story	CURA-34	As an Admin, I want to navigate to doctor/staff/nurse section to check the log-in time so that I can verify whether every doctor/nurse/staff is attending the hospital on time.
Story	CURA-36	As a Staff, I want to check room availability and manage rooms according to requirement so that it will be very helpful to doctors.
Story	CURA-37	As a Patient, I want to registers patient's for admittance to the hospital.
Story	CURA-38	As a Patient, I want to manages patient financial operations, including billing and insurance.
Story	CURA-39	As a Staff, I want to know the ward management which helps caregivers plan, track, and manage the various departments in the hospital so that it will very helpful to patients.

SPRINT BACKLOG

SPRINT BACKLOG 5

Issue Type	Key	Name	Story Points Estimate
Story	CURA - 39	As a patient, I want to able to search on the app, so that I can find the necessary information .	3
Story	CURA - 40	As a patient, I want to update my profile and also upload reports so that doctor can know the patient condition.	3
Story	CURA - 41	As an admin, I want to see all the doctor's list in the application so that, I can manage the system according to my need.	3

USER STORIES AND ACCEPTANCE CRITERIA

USER STORIES & ACCEPTANCE CRITERIA

USER STORY ID	SUMMARY	STORY POINTS
	As a Doctor, **I want** to see my particulars/schedule/profile on the application **so that** I can plan my duties at hospital .	
CURA-29	**Scenario** : Doctor wants to check his schedule **Given** I logged as Doctor **When** I open the application **then** as a doctor see the appointment details per day/week/month **and** also see the details of the patients .	3
	As a Patient, **I want** to confirm whether my appointment with the doctor is set up or no **so that** I can have an idea about my appointment with doctor	
CURA-30	**Scenario** : Patient wants to check with his appointment details **Given** I logged as Patient **When** I open the application and go to this page **then** see my appointment details with the doctor **and** I plan accordingly.	3
	As a Patient, **I want** to submit my symptoms/previous history documents in the portal for assessment **so that** I may receive a accurate determination	
CURA-31	**Scenario** : Patient wants to upload his previous history documents & symptoms **Given** I logged as Patient **When** I open the application and go to this page **then** see the browse option for uploading the documents **and** see the page to enter the details of my previous history & symptoms.	3
	As an Inventor, **I want** to know whether the supplies are as per the requirement or no, **so that** I can re-stock them.	
CURA-32	**Scenario** : Inventor wants to see the list of stock **Given** I'm in a role of Inventor or logged-in inventor **When** I open the web application **then** see the inventory supply details page, clicking on the page I should be able to see all the inventory details **and** option to restock	3

USER STORIES & ACCEPTANCE CRITERIA

User Story ID	Summary	Story Points
CURA-33	**As** a Pathologist, **I want** to know whether samples of the patient are correctly entered or no, **so that** there is no confusion with patient's details with others. **Scenario** : Pathologist wants to check patient's samples **Given** I am in a role of logged-in Pathologist **When** I open web-application and go to this page **then** verify the patient's samples entered correctly or not	3
CURA-34	**As** an Admin, **I want** to navigate to doctor/staff/nurse section to check the log-in time **so that** I can verify whether every doctor/nurse/staff is attending the hospital on time. **Scenario**: Admin wants to check the login & log-out time of hospital staff **Given** I logged as Admin **When** I open the portal **then** in the system I can check total hour a doctor/staff/nurse spends on seeing patients **and** also verify doctor/staff/nurse time.	3
CURA-35	**As** a Staff, **I want** to check room availability and manage rooms according to requirement **so that** it will be very helpful to doctors. **Scenario**: Staff wants to check availability of rooms at hospital **Given** I am in role of logged-in staff **When** I open the portal **then** click on this page so I can able to verify availability rooms **and** manage them.	3
CURA-36	**As** a Patient, **I want** to registers patient's for admittance to the hospital. **Scenario**: Patient wants to easy way for registration **Given** I am in role of logged-in patient **When** I open application for first time **then** I see a link as Register Now then clicking on the link redirects to the registration form page **and** it will be very easy for patients to register in application.	3

USER STORIES & ACCEPTANCE CRITERIA

User Story ID	Summary	Story Points
	As a Patient, **I want** to manages patient financial operations, including billing and insurance.	
CURA-37	**Scenario** : Patient wants to know about financial operations & insurance policies **Given** I am in role of logged-in patient **When** I open the application I will be able to see all plans included **then** I able to should select my insurance plan **and** also have other related financial operations	3
	As a Staff, **I** want to know the ward management which helps caregivers plan, track, **and** manage the various departments in the hospital **so** that it will very helpful to patients.	
CURA-38	**Scenario** : Staff wants to know caregivers plan in hospital **Given** I am in role of logged-in staff **When** I open the application **then** click on this page I can able to verify plans **and** able to track them. .	3

TEST CASES

Test ID	User Story ID	Test Case	Current State	Test Data	steps to follow	Expected Result
TS-11	CURA-34	navigate to doctor section	admin logged into his application	Email:- test@cura.com pwd:- Qura	admin->doctor_section	admin should be able to navigate to doctor section to check their in&out times
TS-12	CURA-34	navigate to staff section	admin logged into his application	Email:- test@cura.com pwd:- Qura	admin->staff_section	admin should be able to navigate to staff section to check their in&out times
TS-13	CURA-34	navigate to nurse section	admin logged into his application	Email:- test@cura.com pwd:- Qura	admin->nurse_section	admin should be able to navigate to nurse section to check their in&out times
TS-14	CURA -29	loading appointment details page	User login into the application as a doctor	Email:- aabc@gmail.com pwd:- abc	doctor->schedules	User should be able to see his schedules and patient details
TS-15	CURA -30	loading appointment details page	User login into the application as a patient	Email:- aabc@gmail.com pwd:- abc	patients->appointments	User should be able to see his appointment details
TS-16	CURA -31	Uploading patient datails page	User login into the application as a patient	Email:- aabc@gmail.com pwd:- abc	patients->symtoms	user should be able to upload his previous medical documents and symtoms details

TEST CASES

Test ID	User Story ID	Test Case	Current State	Test Data	steps to follow	Expected Result
TS-17	CURA -32	Loading inventory supply details page	User logged into the application as inventor	Email:- aabc@gmail.com pwd:- abc	inventor->supply	User should be able to see all inventory supply details
TS-18	CURA -33	Loading patients test sample data details page	User logged into the application as pathologist	Email:- aabc@gmail.com pwd:- abc	pathologist-> sample test data	User should be able to see all patients test sample data for examining
TS-20	CURA -16	editing profile data	User logged into the application as patient	Email:- aabc@gmail.com pwd:- abc	patient->profile	User should be able to edit and save his profile information
TS-21	CURA -35	check room availability	User logged into the application as staff	Email:- aabc@gmail.com pwd:- abc	staff->rooms	User should be able see the list of available room details
TS-22	CURA -35	assigning room to the specific doctor.	User logged into the application as staff	Email:- aabc@gmail.com pwd:- abc	staff->rooms->assign	User should be able to assign room to a doctor
TS-23	CURA -38	loading details of members in different departments	User logged into the application as staff	Email:- aabc@gmail.com pwd:- abc	staff->departments->profile	User should the able see different department members details
TS-24	CURA -37	Selecting insurance plan	User logged into the application as patient	Email:- aabc@gmail.com pwd:- abc	patient->insurance plan	User should be able to see all available insurance plans and select one of them
TS-25	CURA -36	loading quick registration form	User logged into the application as patient	Email:- aabc@gmail.com pwd:- abc	patient->check box->min registration form	User should be able to click check box and should taken to minimal information registration form

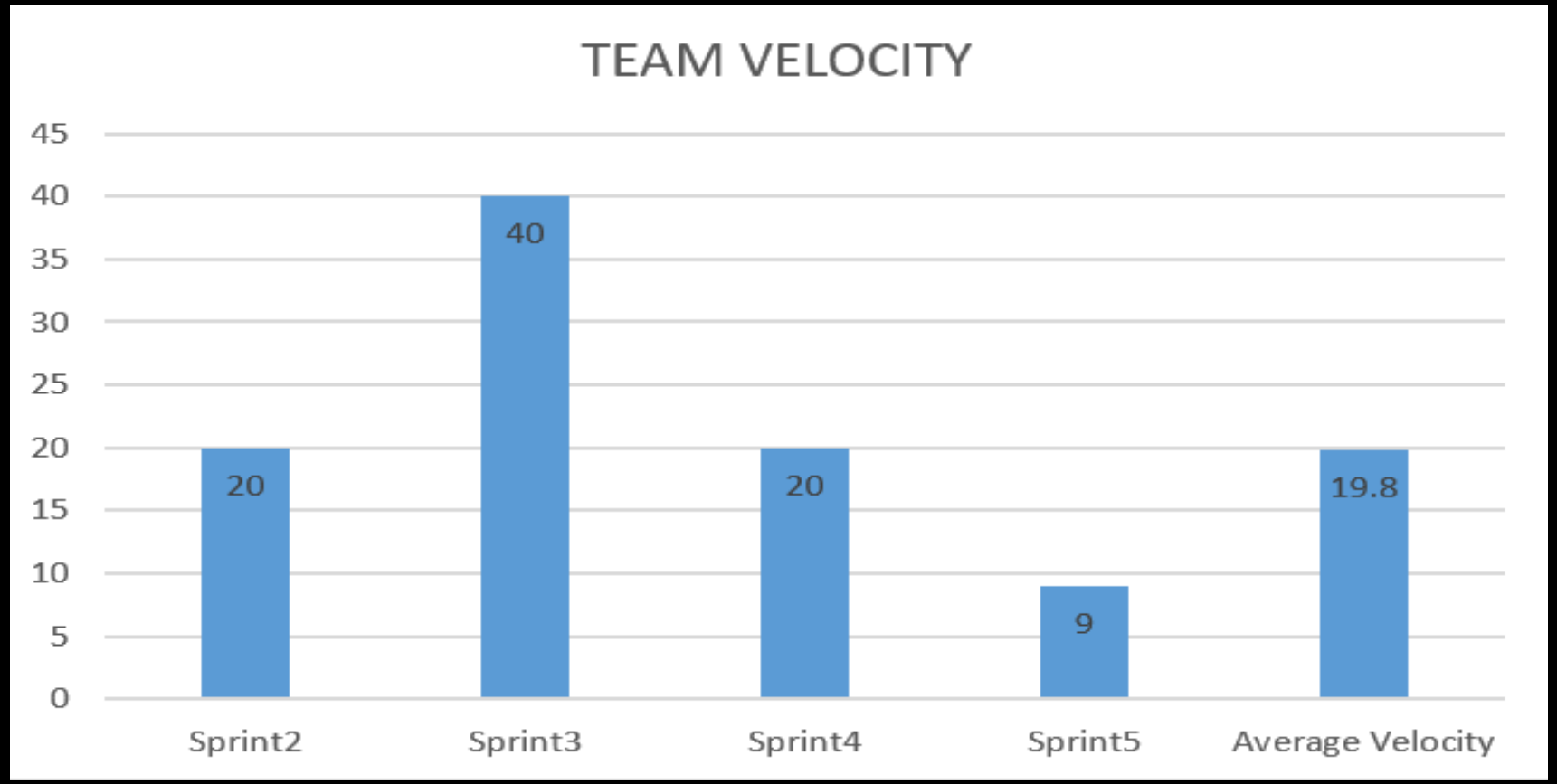
TEST CASES

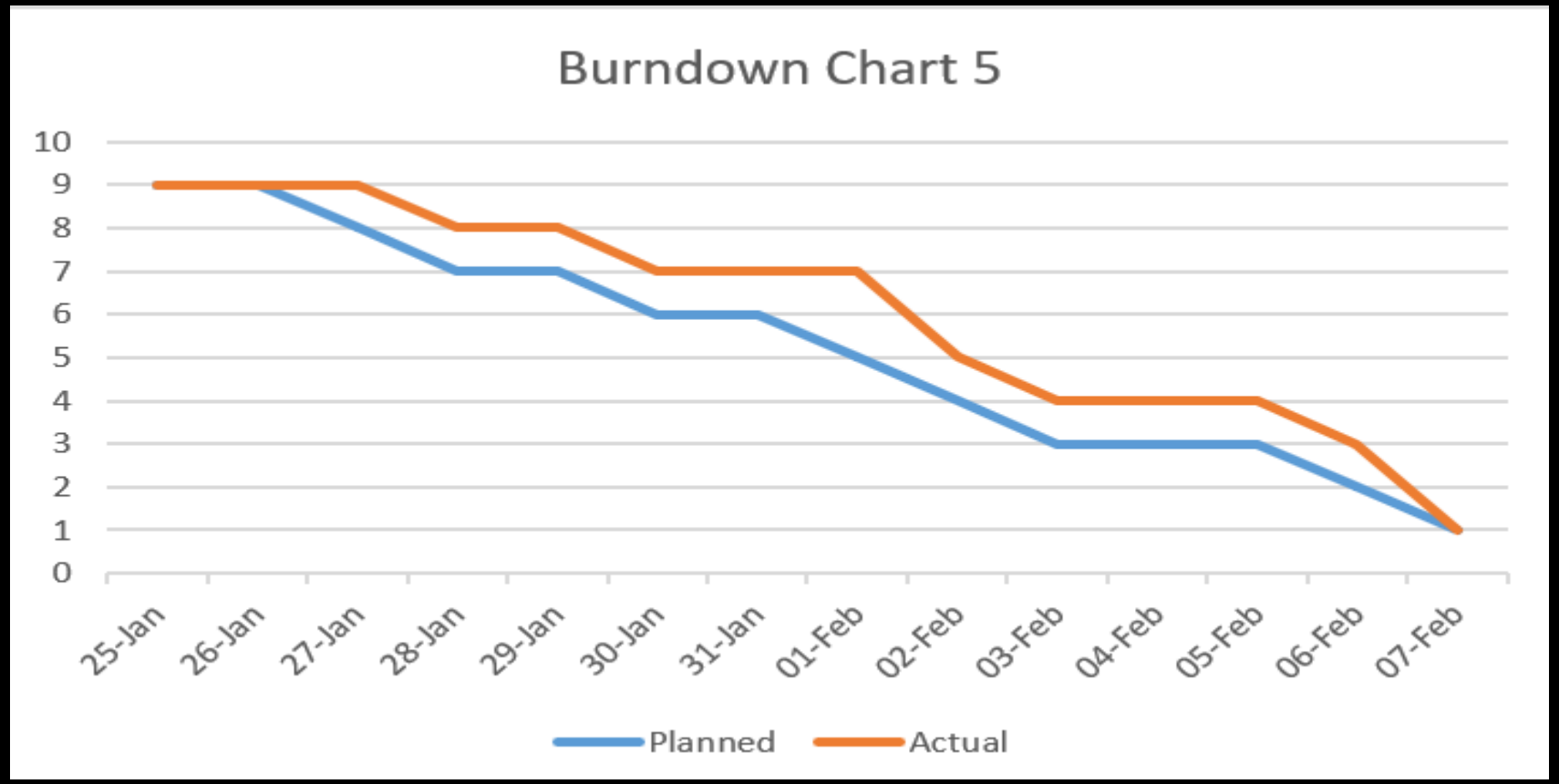
Test ID	User Story ID	Test Case	Current State	Test Data	steps to follow	Expected Result
TS-26	CURA-32	order supply stock	user logged in as inventor	Email:- testinventor@cura.com pwd:- Qura	inventor->supply-> order	inventor should be able to place stock order successfully
TS-27	CURA-35	reserving a room	user logged in as staff	Email:- teststaff@cura.com pwd:- Qura	staff->rooms->reserve	staff should be able to reserve a room for upcoming operation or patient
TS-28	CURA-27	updating patient test data	user logged in as pathologist	Email:- pathologytest@cura.com pwd:- Qura	pathologist->patient->update data	pathologist should be able to update patients' data without any problem
TS-29	CURA -28	creating new record	user logged in as pathologist	Email:- aabc@gmail.com pwd:- abc	pathologist->patient->add patient	pathologist should be able to add new patient in test data records

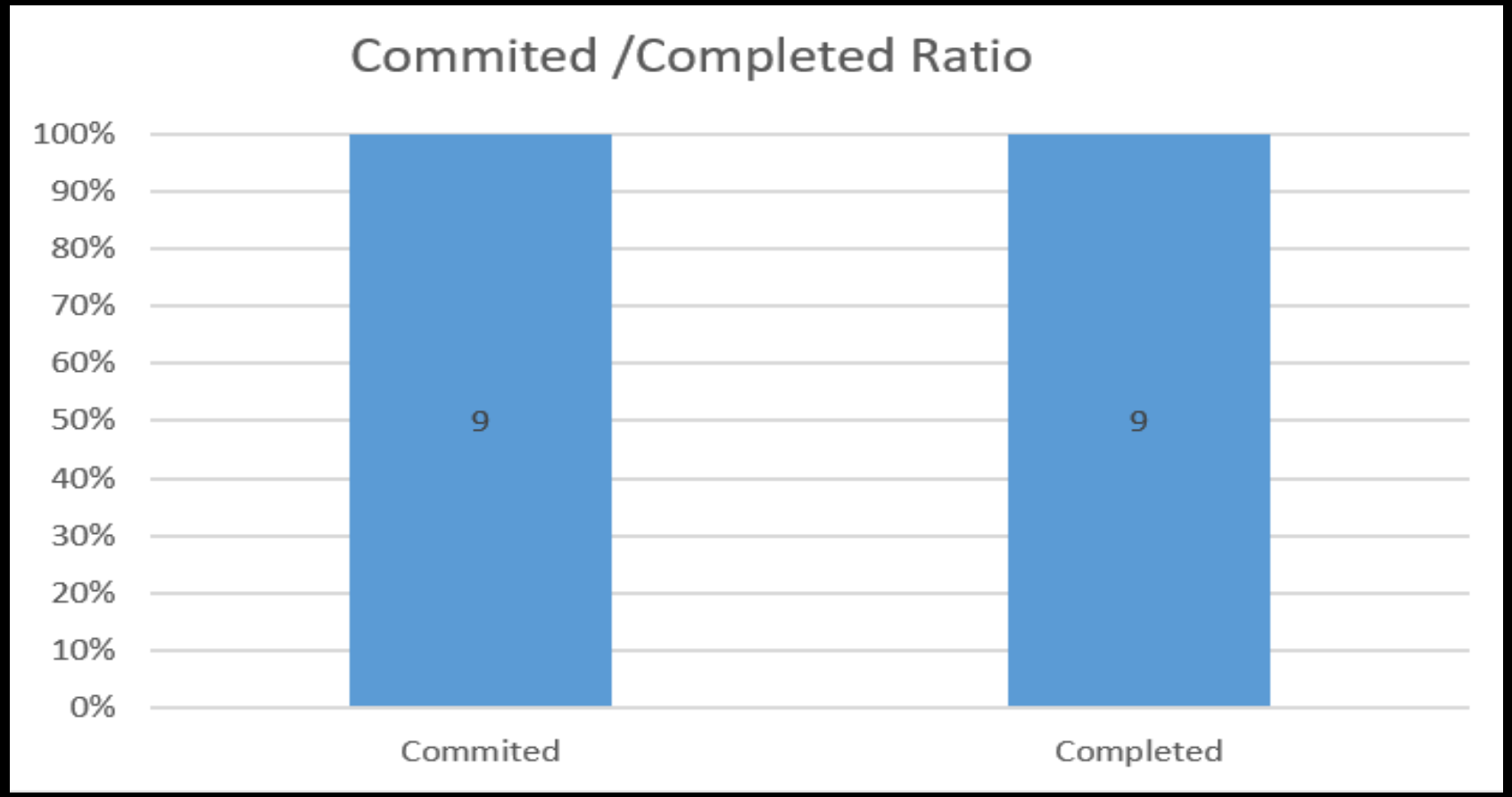
STORIES COMPLETED AND NOT COMPLETED

Issue Type	Key	Name	Story status
Story	CURA - 39	As a patient, I want to able to search on the app, so that I can find the necessary information .	Completed
Story	CURA - 40	As a patient, I want to update my profile and also upload reports so that doctor can know the patient condition.	Completed
Story	CURA - 41	As an admin, I want to see all the doctor's list in the application so that, I can manage the system according to my need.	Completed

METRICS


TEAM VELOCITY
45
40
35
30
25
20
15
10
5
0
20
40
20
9
19.8
Sprint2
Sprint3
Sprint4
Sprint5
Average Velocity


Burndown Chart 5
10
9
8
7
6
5
4
3
2
1
0
25-Jan
26-Jan
27-Jan
28-Jan
29-Jan
30-Jan
31-Jan
01-Feb
02-Feb
03-Feb
04-Feb
05-Feb
06-Feb
07-Feb
Planned
Actual


Commited /Completed Ratio
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
9
9
Commited
Completed

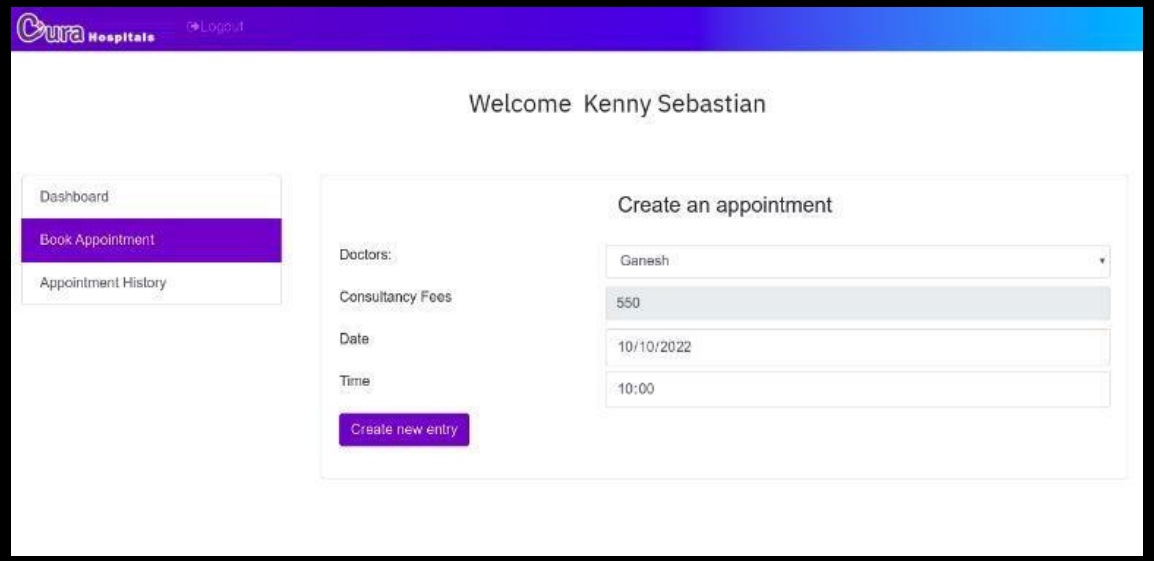
Retrospectives

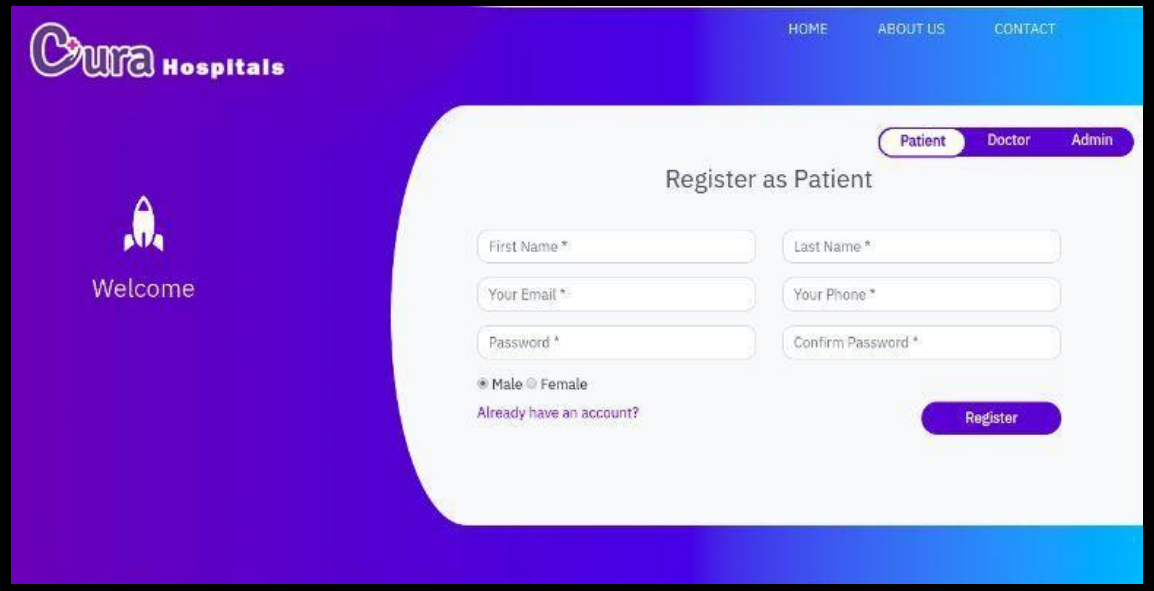
- What went well??
  - Team completed the task before due date.
  - Team mates participates actively in team meeting calls
- What didn't went well??
  - Avoid delaying work
  - Facing difficulty in implementation part
- What next??
  - Team members need to interact more in group meeting
  - Set small targets to complete task more efficiently

SPRINT 6

STORIES PLANNED FOR SPRINT 6

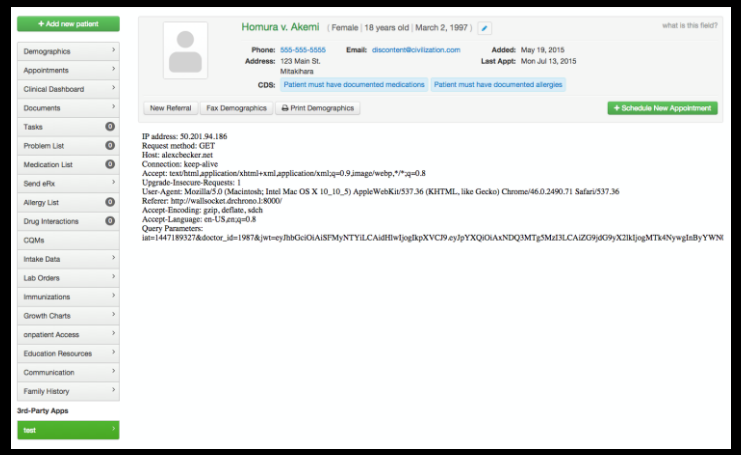
Issue Type	Key	Name	Status	Story Points Estimate
Story	CURA - 42	As a pathologist I should be able to see the medication given to the patient previously so , when new medicines are prescribed to the patient the old prescription is updated.	To Do	3
Story	CURA - 43	As a patient, I want to able to download the prescriptions for future purpose.	To Do	3
Story	CURA - 44	As an admin, I want to check the login and log out time of all Doctors/Staff/Inventors etc.	To Do	3


Cura Hospitals
Logout
Welcome Kenny Sebastian
Dashboard
Book Appointment
Appointment History
Create an appointment
Doctors:
Ganesh
Consultancy Fees
550
Date
10/10/2022
Time
10:00
Create new entry


Cura Hospitals
HOME
ABOUT US
CONTACT
Welcome
Patient
Doctor
Admin
Register as Patient
First Name *
Last Name *
Your Email *
Your Phone *
Password *
Confirm Password *
Male
Female
Already have an account?
Register

dr chrono

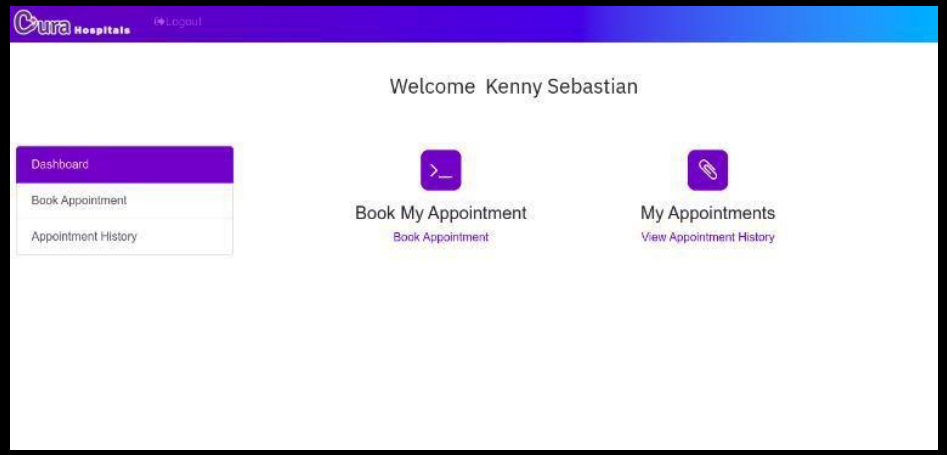
HUMAN API

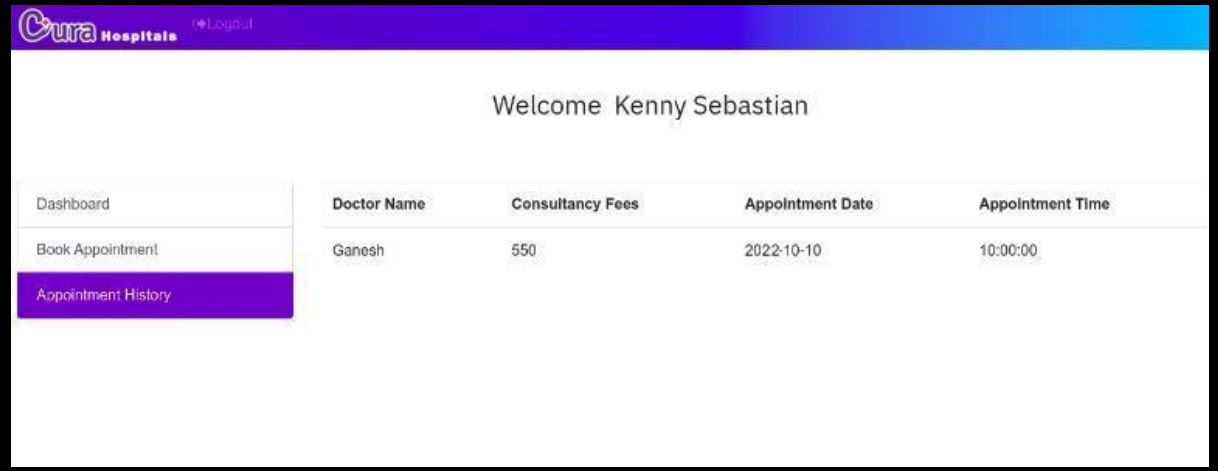


GITHUB LINK

https://github.com/SaiTejjj/HMS/wiki/CURA---HMS

LIVE APPLICATION DEMO





THANK YOU

- Sai Teja Koribilli
- Jigar Shah
- Mounika Thalla
- Kuldeep Raj
- Bindu Valishetti
- Nikhil
- Shivansh Tomar