

Agenda

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Artificial Intelligence (AI) has played a significant role in SARS-CoV-2 detection and prevention since the onset of the COVID-19 pandemic. Review the user history feature's requirements and objectives. Discuss the need for X-ray uploads with associated names.

AI algorithms can process large volumes of data quickly, enabling rapid analysis of COVID-19-related information, such as patient data

AI can provide highly accurate results. AI solutions can scale easily to handle large datasets and adapt to evolving situations.

SARS Covid-19 has been developed to assist in identifying COVID-19 cases quickly and accurately.

AI has proven to be a valuable tool in SARS-CoV-2 detection and prevention, offering speed, accuracy, and scalability.

These AI applications have the potential to enhance our ability to respond effectively to the ongoing COVID-19 pandemic and future infectious disease outbreaks.

Data collection and preprocessing for AI-based SARS-CoV-2 detection are vital but come with significant challenges related to data availability, privacy, and quality. Overcoming these challenges requires a multi-faceted approach involving collaboration, technology, and ethical considerations to ensure the responsible and effective use of data in pandemic response efforts.

Project Description

Project Name:	SARS Covid-19 detection through AI
Team:	Mission Possible
Project description:	<p>For users Who want to know their feedback on covid-19 reports the let it free Is a web app That checks users reports and provides the accurate result Unlike if users not able to go hospitals in the covid-19 situation Our application will help them to submit their reports and they can get their accurate result. Based on their result they can order the medical kit and they can make an appointment to the doctors as well.</p>
Benefits outcomes:	It the users can use our application they can easily get their covid-19 accurate feedback. Based on that they can order the tool kit and they can take the precautions s well.
github link:	https://github.com/htmw/2023S-Team4/wiki

Team working agreement

- ❖ We held a Zoom meeting on Sunday's during which we discussed Sprint-5 and allocated tasks to each team member.
- ❖ Every team member is expected to be prepared with their assigned tasks completed within the agreed-upon deadlines.
- ❖ To ensure that everyone is well-informed about their roles and responsibilities and comfortable in fulfilling them.
- ❖ We've set clear expectations for task completion and established specific deadlines.



Team Member Roles and Responsibilities



Hanith atluri
(Tester)



Vamshi
(Product manager)

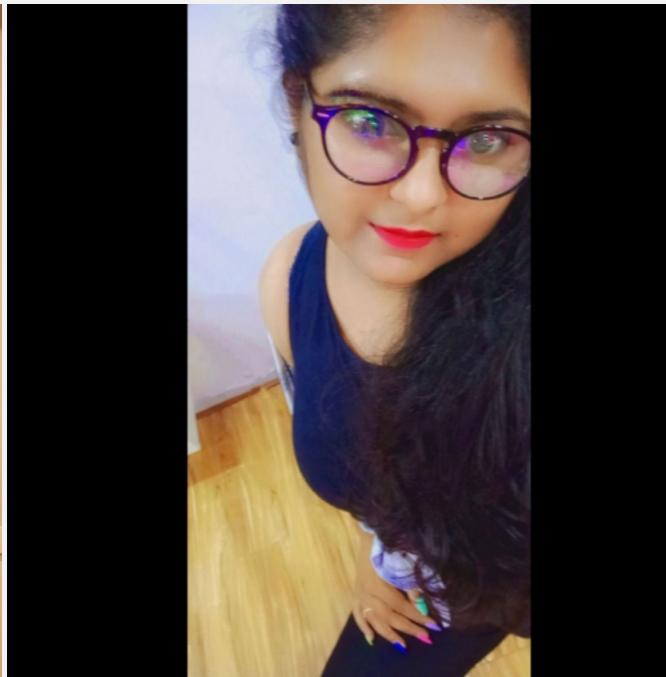


Alekhya
(Facilitator)

Team Member Roles and Responsibilities



Venkatesh
(Quality Analyst)



Reshma Gonu
(Developer)



Anusha Nunna
(Developer)

Improvements made from Professor Feedback

- **The team chose not to incorporate the most recent feedback offered by the professor.**
 - This time, in response to the professor's feedback, we have created tables for stories not completed.
- **In the upcoming Sprint, it's imperative that you present a demo of your Minimum Viable Product (MVP) that goes beyond just showcasing the login and signup features, are not sufficient.**
 - We conducted a demo for the user history feature, allowing the storage of multiple results under one profile, and we have received feedback. For this deliverable, our intention is to integrate further enhancements in response to this feedback.
- **Updated Technical Paper**
 - This time, all team members collaborated on the technical paper.
- **The tasks and user stories for Sprint 3 are missing, along with their corresponding Burndown Chart.**
 - We need to address the absence of Sprint 3 tasks, user stories, and their associated Burndown Chart.



Personas

Persona-1



- **Name:** SARAH RODRIGUEZ
- **AGE:** 42 YEARS
- **GENDER:** FEMALE
- Her daughter recently developed a persistent cough, so she went to hospital with her daughter to get checked out and the doctors wanted to check if her daughter was showing any signs of convulsions.
- The X-ray was carried out, but none of the doctors are available to provide the feedback. Sarah needs a platform that allows her to upload her daughter's recent X-ray securely, associating it with her daughter's name, for AI analysis. She is able to do that using SARS COVID 19 DETECTION through AI.

Persona-2



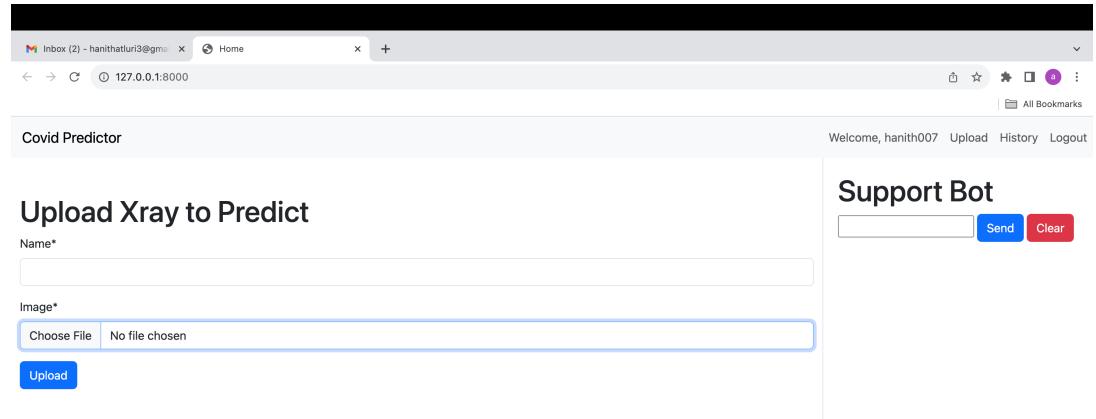
- **NAME:** ALEX
- **AGE:** 35 YEARS
- **GENDER:** MALE
- As a parent of two school-going children, Alex is deeply concerned about the family's health, especially during the ongoing COVID-19 pandemic. Being knowledgeable about the advancements in technology, Alex actively seeks convenient and efficient solutions to manage the family's healthcare needs.
- Alex wants to save multiple test results under one family profile. Alex wants a seamless experience where all family members' test histories and results can be securely stored and easily accessible whenever needed. This feature allows Alex to monitor the family's health proactively and share the information with healthcare professionals if required.

Persona-3



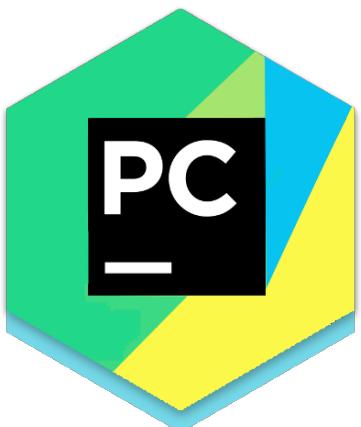
- **NAME:** JAMES
- **AGE:** 26
- **GENDER:** MALE
- James is well-informed about the ongoing COVID-19 pandemic and understands the importance of regular testing and monitoring. James lives with his elderly parents, making him particularly cautious about their family's health.
- James, concerned about the rising COVID-19 cases in his area, uses SARS COVID 19 DETECTION THROUGH AI to maintain his family's health history. After his father experiences mild symptoms, he logs the details, including symptoms and the subsequent test results, into the application. Over the next few days, James has to take his father for retesting based on his symptoms. When he visits the doctor, James effortlessly shares his father's health history, aiding the diagnosis process.

MVP-Minimum viable product

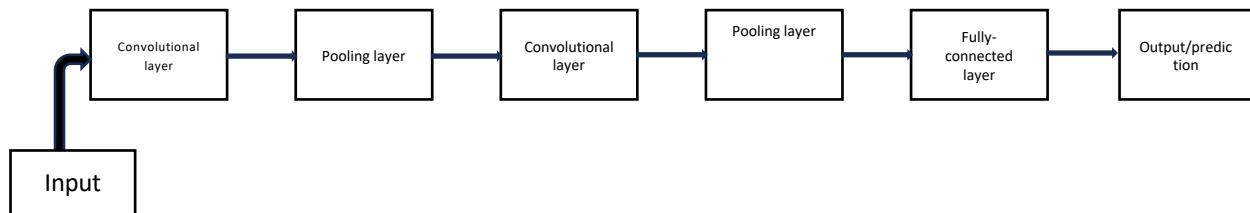


- With this project's minimum viable product (MVP), we will be able to upload a CT-scan document from a patient with chronic obstructive pulmonary disease in order to verify the report's current status.

Technology & algorithms



- CNNs are able to identify COVID-19 and other medical disorders automatically by learning important features straight from the X-ray pictures. However, the quality and amount of the training data, as well as the network design, can have a significant impact on a CNN's performance. Therefore, it is crucial to conduct extensive validation and assessment prior to use CNNs for medical image processing, particularly in hospital settings.

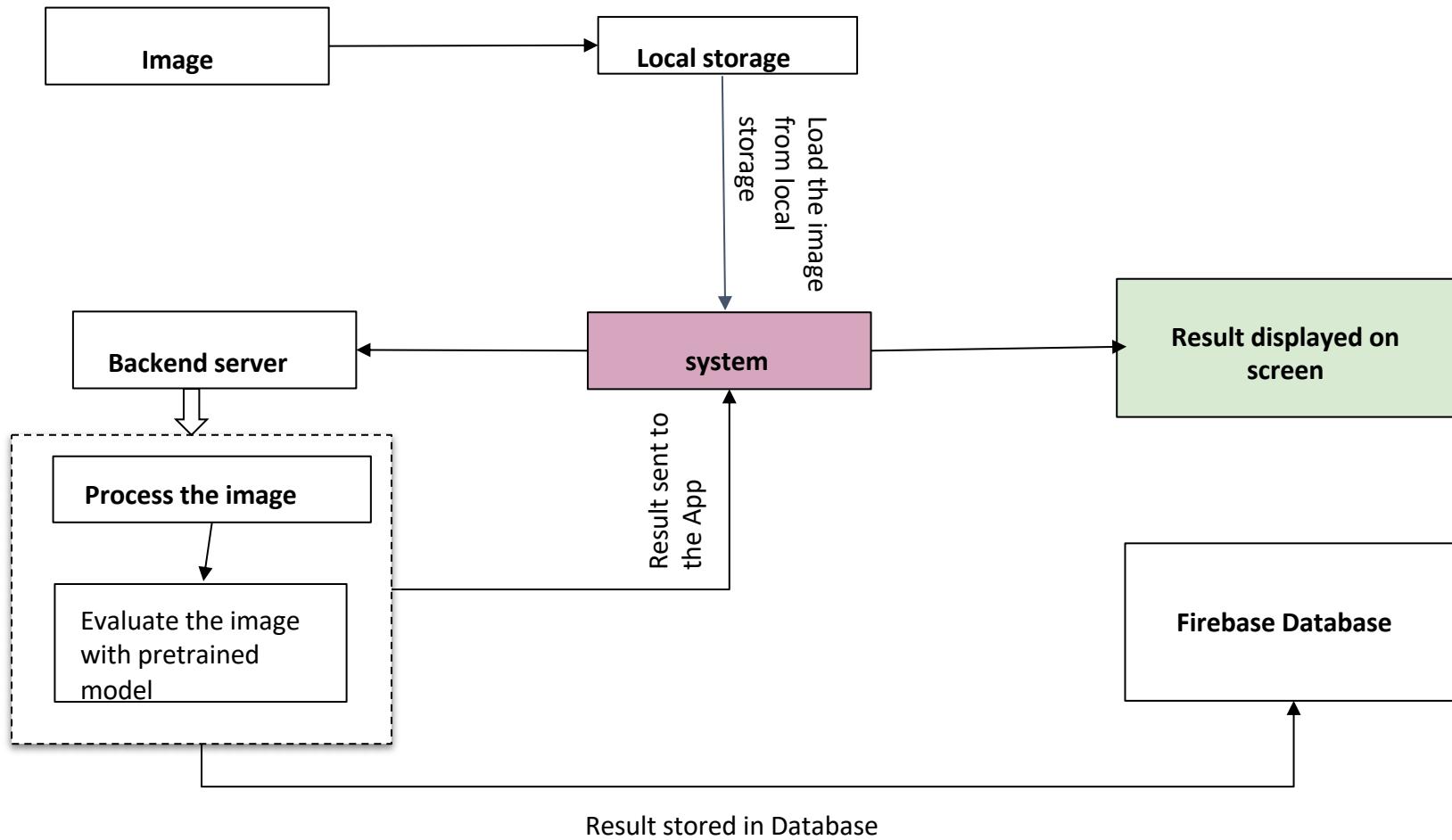


Convolutional Neural Networks (CNNs):

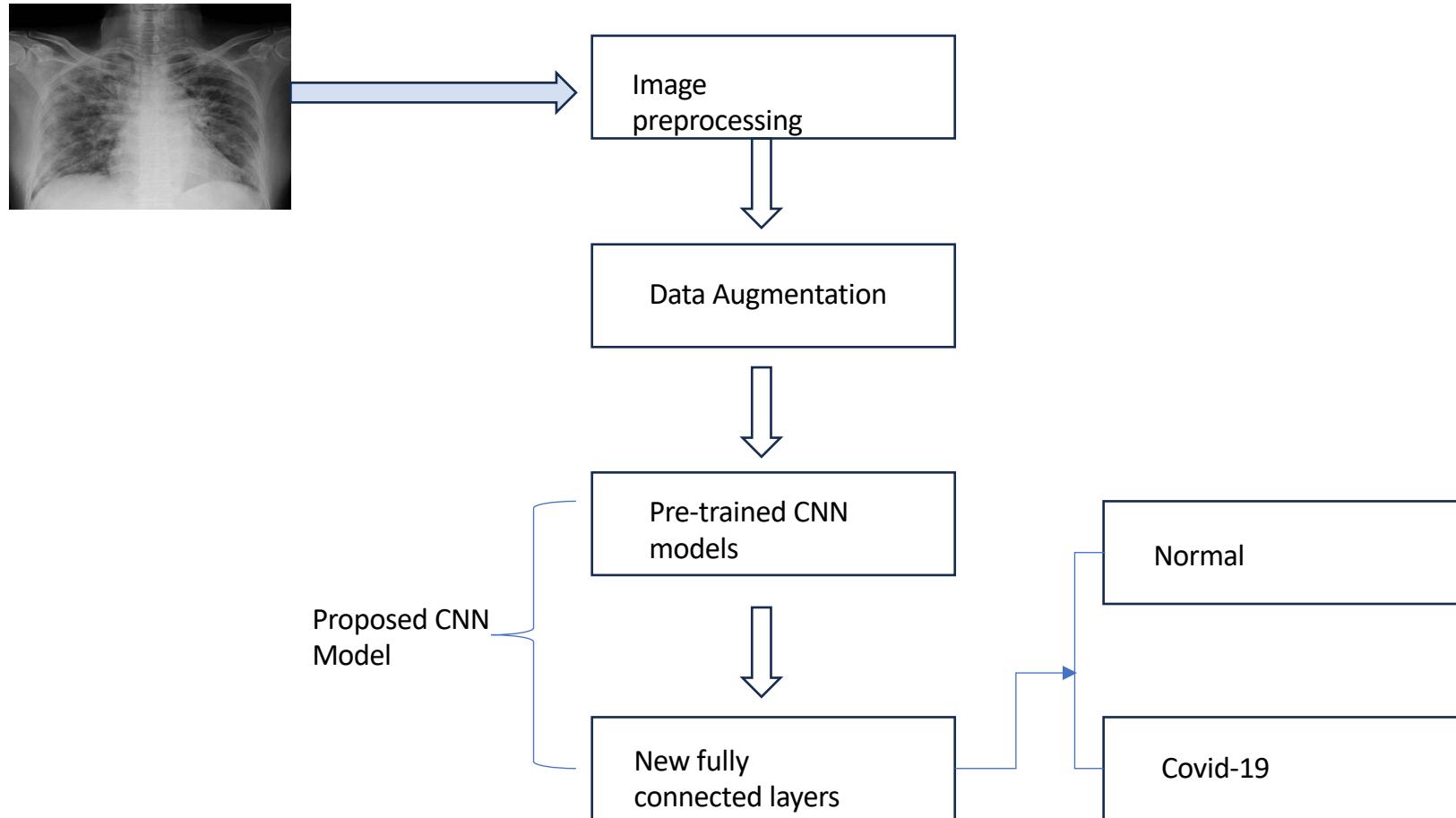
Diagrams



Conceptual Architecture Diagram



Class Diagram(UML Diagram)

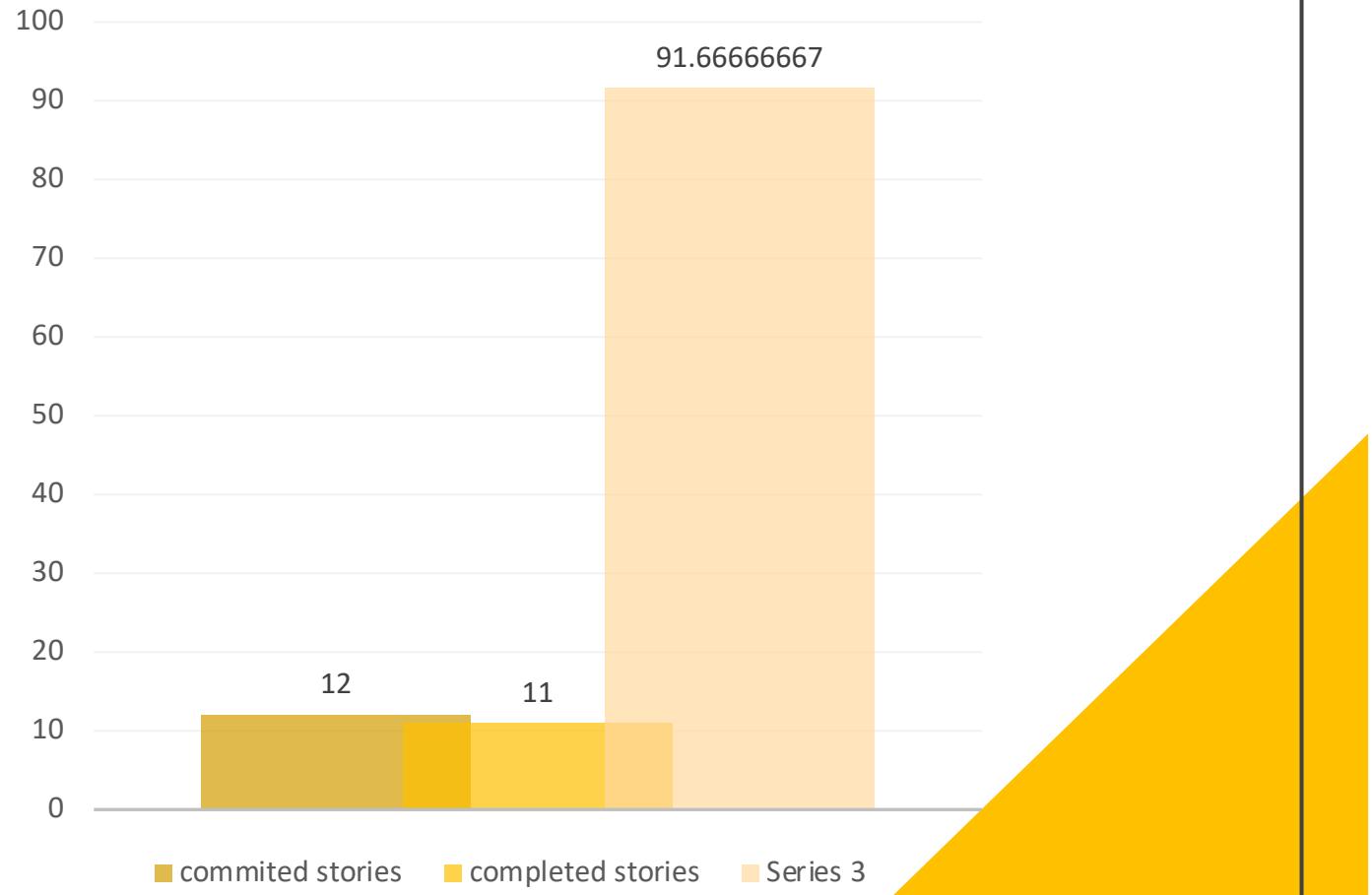




Recap of sprint-4

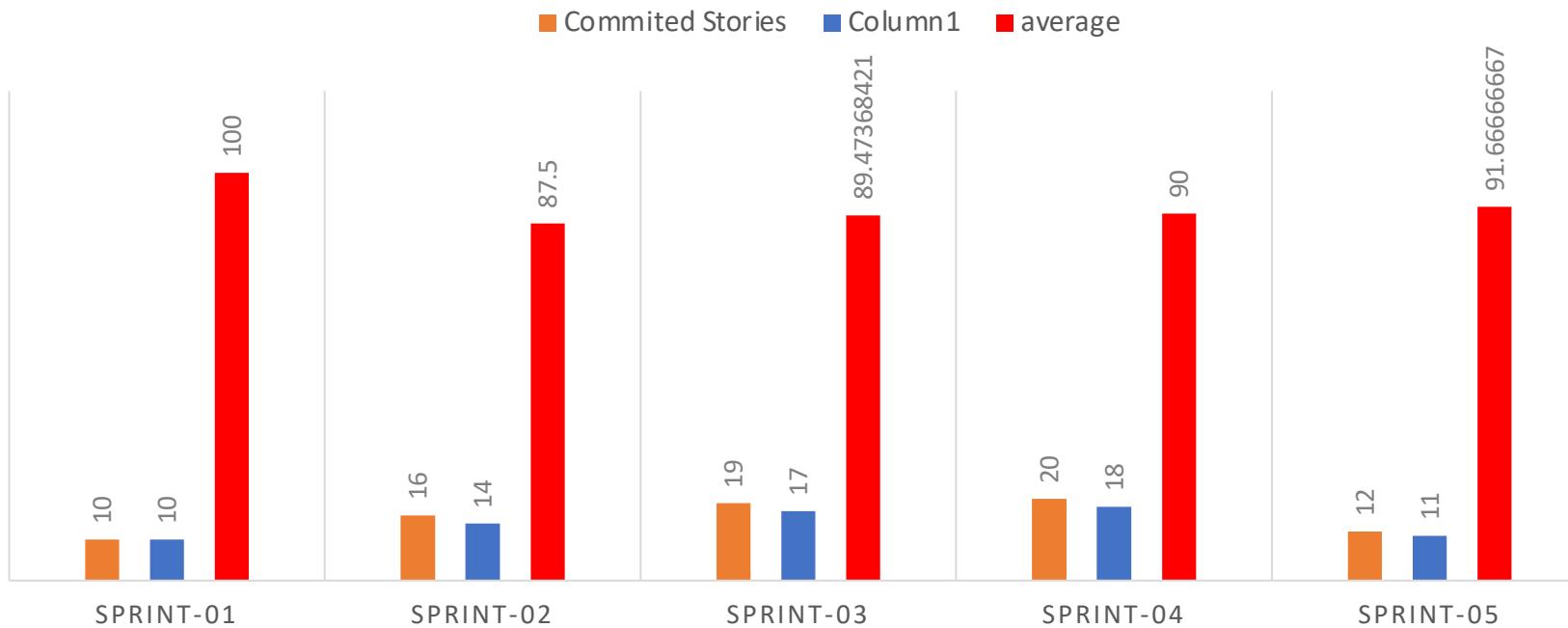
- Implemented X-ray report upload feature for COVID-19 evaluation.
- Introduced chatbot for discussing various health issues.
- Defined core MVP features aligned with project goals.
- Made progress in the deployment phase, addressing challenges.
- Developed a technical paper, covering its purpose, scope, and key findings.
- Shared team metrics and relevant KPIs.
- Listed incomplete tasks and outlined plans for resolution.
- Reported the percentage of test cases covered during the sprint
- Summarized key take aways and action items from the retrospective.

Team velocity(Sprint-05)

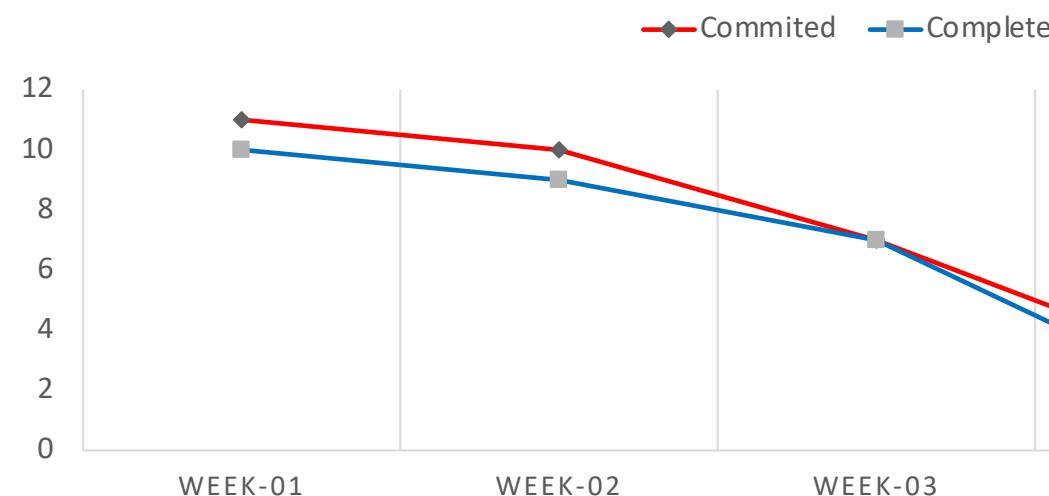


Team's average velocity

TEAM'S AVERAGE VELOCITY



Burndown chart

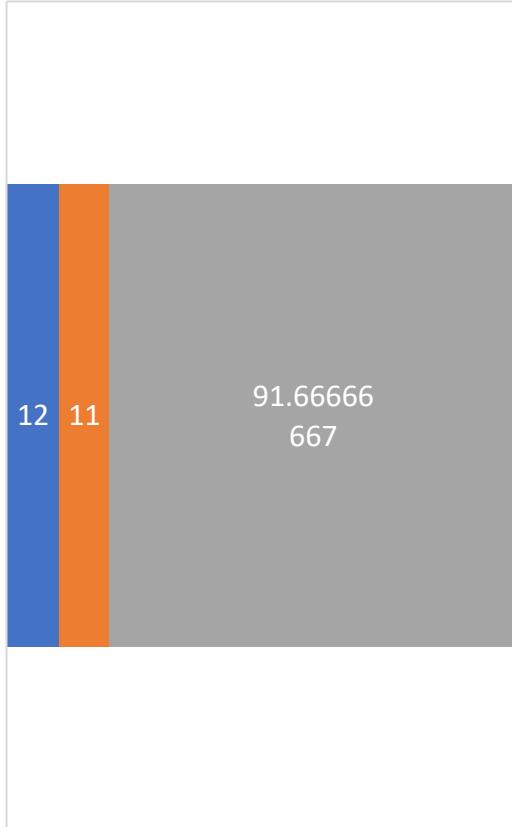


Retrospective

WELL DONE THINGS- We've improved our deliverable by including additional amenities and ensuring that they all function properly. The success of our group effort may be attributed in large part to the open lines of communication we maintained throughout. When it comes to the construction process as a whole.

WHAT NEEDS TO BE CHANGED- We plan to use the professor's comments to refine our work. The group needs to work on its lack of teamwork. Meetings should focus more on brainstorming potential project directions.

WHAT MEASURABLE STEPS WE MADE TO DEVELOP- There must be more honesty and openness in our interactions. Additional conversations are required. We're going to have a more in-depth conversation about potential projects in order to refine our software.



Completed/Committed ratio

- Changed the IDE to PyCharm from Android Studio.
- Multiple results can be saved in a single profile.
- User activity log
- Conversational UI and user training
- Database update
- Put up a CT-scan and label it with your name
- User dashboard development and implementation
- Technical Report Revised

Product Backlog

	user stories summary	Place
SARS-258	As a user , I want to update the information in the portal. So that I can keep my portal active through user login and password	Homepage
SARS-260	Implement a user-friendly search feature with predictive suggestions to help users find content or products more easily.	
SARS-261	As user , I want to login in portal. Therefore I can all information through portal	
SARS-263	As user , I want to view my portal and their result	
SARS-264	As a user, I wish for the portal to continuously monitor my results, providing updates on the progression of my condition, especially when it worsens.	
SARS-265	As a user, I desire to have the ability to identify diseases that can be diagnosed and treated using X-rays for better healthcare insights.	
SARS-266	As a user, I aim for a seamless process to input and provide my personal information.	

Sprint 5 backlog

Keys	Name
SCRAS-70	As an user, I can chat with the chatbot in order to get some random information
SCRAS-72	As an user, I want to receive a report indicating whether they have tested positive or negative
SCRAS-73	As an user, I want to do regular checkup checklist , so that I can get the graphical analysis on my health reports
SCARS-74	As a user, I want to know my health status through the collection and interpretation of health data by monitoring and analysis of my reports

Acceptance criteria

Scenario	summary	status
1. User get to know about the disease Given I logged as an user	As a user I want to know the details about the xray So that I can have the appointment these days	done
2. As a user I can chat with bot and even login as an individual user so, I can upload the xray and predict the outputs.	As a user I want to know my reports result So that I can view my reports to the doctor on time	done

Acceptance criteria

SCENARIO	SUMMARY	STATUS
3. User want to upload the reports in portal Given I logged in as user. When I given the health report to the bot and give is drug usage and specifications	As a user I need suggestions to choose required drug to cure myself so that I can cure my self	done
4. User needs to check confirm disease by providing symptoms Given I logged in as user When I logged in and open bot Then I need an interface where I can provide my symptoms and get confirmation	As a user I can able to check my symptoms by providing inputs so that I can be sure of my health	done

Test Cases

TEST ID	USER STORY	TEST CASE	CURRENT STATE	STEPS TO FOLLOW	EXPECTED RESULT	RESULT
TS-51	SCIDTA-223	User logged into the portal	User details (login details)	Login->bot	User should be able to upload the report in the portal	P
TS-52	SCIDTA-224	User should able to get the accurate predicted result	User details (login details) Update message	Login->upload->result	User should be able to update the results	p
TS-53	SCIDTA-225	User need to I can chat with bot for further updates	User logged into the portal	Login->chat bot	User should able to get a new messages from the bot	P

Completed and not completed stories

key	Name	status
SCARS-50	Develop the MI model AI on render	Done
SCARS-51	User results through the AI detection to predict the disease	Done
SCARS-52	Analysis of report with the previous report	Not done
SCARS-53	Updating the user reports to doctor through portal	Not Done

Thank you!!!