



ECOSCAN

Plant Disease Detection System

Our Team



Rudra Chobe
Scrum Master



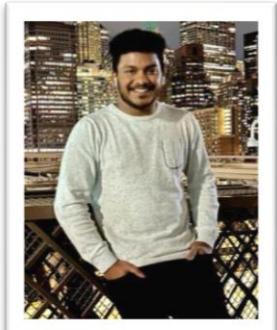
Omkar Gurav
Developer



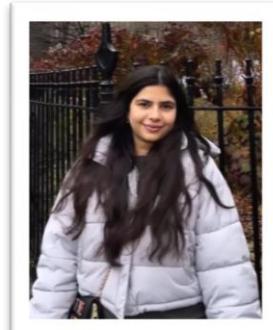
Shriya Haral
Developer



Ritika Chougala
Developer



Lokeshwar Anchuri
Developer



Niyati Ghagada
Developer



Uma Maheswari Addala
Developer / Tester



Mukesh Suddala
Developer/Quality Assurance



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IMPROVEMENTS MADE FROM PROFESSOR'S FEEDBACK

- Project schedule for all the sprints
- Retrospective video for Sprint -1
- Adding roles for each team members
- Naming tools and adding where are they used?



PROBLEM WHICH WE ARE ADDRESSING



Problem Statement

The agriculture sector plays a crucial role in sustaining global food security, and plant diseases pose a significant threat to crop yield and quality. Identifying and managing these diseases in a timely and accurate manner is essential for ensuring food production. However, the current methods of plant disease detection often rely on visual inspection by experts, leading to delays in diagnosis and sometimes inaccurate assessments. Additionally, the increasing complexity and variability of plant diseases make it challenging for traditional methods to keep pace with emerging threats. There is a pressing need for advanced and automated plant disease detection systems that can provide rapid, reliable, and precise identification of diseases, enabling farmers to take proactive measures to protect their crops and enhance overall agricultural productivity.



Problem Statement

Furthermore, the economic impact of plant diseases on farmers and the agriculture industry is substantial, with losses stemming from reduced yields, increased use of pesticides, and the potential spread of diseases to neighboring crops. In the race of climate change and global trade, the dynamics of plant diseases are evolving, necessitating a more adaptive and technology-driven approach to diagnosis and management. The development of efficient and scalable plant disease detection solutions that leverage advancements in artificial intelligence, machine learning, and image processing is paramount. By addressing these challenges, **we can empower farmers with timely information, minimize crop losses, promote sustainable farming practices, and contribute to the overall resilience of the agricultural sector in the face of emerging plant health threats**

Project Description

"**Eco Scan**" is a pioneering project leveraging Convolutional Neural Networks (CNN) and image processing techniques for rapid and accurate plant disease detection. Using high-resolution images of plants, the system employs advanced CNN algorithms to analyze and identify potential diseases swiftly. The project's primary objective is to provide a user-friendly interface for farmers, allowing them to upload crop images and receive real-time analyses, enabling early disease detection and informed decision-making. By integrating state-of-the-art technology into agriculture, Eco Scan aims to optimize crop health monitoring, minimize losses, and promote sustainable farming practices.





PERSONAS



PERSONAS

Ava, the progressive farmer is deep-rooted in the rhythm of the seasons, guiding her farm through cycles of growth and harvest. Yet, she's no stranger to the harsh realities of plant disease and its impact on yield and sustainability. Faced with the complexities of organic farming, she's seeking innovative solutions to protect her crops without resorting to chemical interventions.

Interests

- Aside from her passion for sustainable farming, Ava is interested in the latest agricultural technologies that can help optimize organic farming practices.

Frustration

- The unpredictability of plant diseases and the limited effectiveness of conventional organic methods in rapid detection and management are her main obstacles.

Goals

- Ava is determined to integrate cutting-edge technology into her farming practices to boost productivity while adhering to organic principles.



Name: Ava

Age: 28

Location: Ames, Iowa

Occupation: Owner and operator of an organic farm

Income: \$66,000/annually

Family: Married

PERSONAS

Raj is a visionary in his field, constantly coding and testing the limits of artificial intelligence to serve the earth's farmers. He sees the potential in every line of code to revolutionize traditional farming practices. However, he struggles to find real-world test beds for his algorithms, which are necessary to refine and tailor his solutions to the nuanced needs of agriculture.

Interests

- Participating in Hackathons, Coding contests etc.
- Practicing yoga and mindfulness
- Emerging tech in AI.

Frustration

- Access to diverse agricultural data and the hesitancy of the farming community to adopt new technologies are his primary challenges.

Goals

- To develop a robust platform that can adapt to various agricultural contexts and improve farm resilience against diseases.



Name: Raj

Age: 30

Location: New York City, NY

Occupation: AI Software Engineer in Agri-Tech

Income: \$120,000/annually

Family: Single

PERSONAS

Claire is a bridge between the agrarian world and the halls of legislation, tirelessly working to shape policies that promote ecological stewardship and technological innovation in farming. She understands the urgency of sustainable agriculture in the face of climate change but is often met with resistance from policymakers reluctant to prioritize or fund these initiatives.

Interests

- Enjoys reading about global economic trends.
- Organizes educational workshops on sustainability.
- Enjoying weekend family outings

Frustration

- Her challenge is to navigate the complex political and economic landscapes to secure support and funding for agricultural technology initiatives

Goals

- To influence the adoption of sustainable agriculture policies that support and encourage the use of advanced technologies like "Eco Scan."



Name: Claire

Age: 52

Location: Brussels, Belgium

Occupation: Environment Policy Advisor

Income: \$70,000/annually

Family: Married

TEAM AGREEMENT

Team Agreement

Participation and Work Division

- All the team members are expected to attend the meeting promptly and involve in discussions. Absence of team member will affect teams' performance and efficiency.
- If team member is not able to attend the meeting, he/she should let the team know earlier.
- The entire project should be divided into equal parts and equal responsibilities should be given to all team members.
- Each team member should complete their respective work before the deadline. If they are unable to complete the work on time, that hinders the performance of entire team. If in case any team member is facing issue at any point, they can share it with other team members so they can help each other and get the work completed before deadline.

Communication

- The team will communicate through WhatsApp Group and for weekly meetings Teams will be used.
- Jira software will be used to track the assigned tasks.
- Task management, bugs, sprint planning and meetings minutes will be tracked in Jira.
- Google docs will be used to share the final deliverable where all team members will be able to edit the document.

Meetings

- All team members will meet virtually on Teams everyday. All the team members must be present, as attendance is mandatory unless there is an emergency.
- The team member is responsible for sending meeting details and conducting the meeting.
- A meeting track or meeting minutes reports would be listed after every meeting to keep track of the project and its progress.
- Every team member is expected to come up with ideas, participate in the discussions and give update on their progress for their part of the work.

Team Members	Email Id's
Rudra Chobe	rc81960n@pace.edu
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Ritika Chougala	rc93170n@pace.edu
Lokeshwar Anchuri	la58264n@pace.edu
Niyati Ghagada	ng59819n@pace.edu
Uma Maheswari Aishwarya Addala	ua26809n@pace.edu
Mukesh Suddala	ms67865n@pace.edu

MARKET AND BUSINESS ANALYSIS



Business analysis (Things to consider)

Who are the potential stakeholders?

- Farmers , agricultural researchers, Technology providers.

What are the existing solutions?

- Traditional methods: individual inspections from time to time, lab testing
- AL-ML methods: SVM, CV, CNN, Random Forest and many more.

Does it provide cost-to-benefit ratio?

- Considering the hardware and software cost to be affordable as right now the hardware and software available is costly.
- Solution: Early-stage disease detection as this can help to reduce the manufacturing cost.

How is the user experience right now for the existing products?

- Difficult for farmers to understand the interface.
- Has bugs which leads to wrong detection of the diseases.
- Less accuracy for the providing the solutions for that disease.
- Time consuming: Takes a lot of time for loading and processing the data.
- Paid subscriptions

Which are existing AI apps and websites?

- Blossom AI : Paid subscriptions
- PlantSnap : Free trial for 7 days
- Plantix: Free
- Agriapp: Paid subscription

MARKET ANALYSIS

- Market Potential: The global agricultural technology market is growing rapidly, with a specific demand for solutions addressing crop diseases. The plant disease detection market is expected to witness substantial growth due to increasing awareness of the impact of diseases on crop yields.
- Competitive Landscape: Limited competitors with similar offerings, providing an opportunity for differentiation and market capture.
- Regulatory Environment: Compliance with agricultural and environmental regulations will be crucial. Collaboration with agricultural research institutions and government bodies is essential for validation and regulatory approvals.



THE GLOBAL PATHOGEN OR PLANT DISEASE DETECTION AND MONITORING INDUSTRY WAS VALUED AT \$1.76 BILLION IN 2022



EXPECTED TO GROW WITH A CAGR OF 9.68% DURING THE FORECAST PERIOD 2023-2028 TO REACH \$3.03 BILLION BY 2028.

What are existing AI-ML Models?

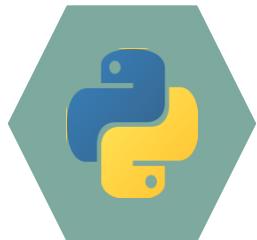
Approach	Method used?	What are the features?	Accuracy	Drawbacks
Image- based Plant Disease detection	CNN	38 Classes containing crop species and disease Dataset: PlantVillage	99.35	Classifying the single leaves
Using Computer Vision and ML Algorithms	DWT+PCA+GLCM+CNN DWT: Discrete Wavelet Transform	6 classes Tomato plant diseases Dataset: Village(Tomato plant)	99.09	Can be used for one plant sample
Using Machine Learning	Logistic Regression, SVM, K-Nearest Neighbour, Random Forest , Naïve Bayes	160 images of Papaya Leaves using Histogram of an Oriented Gradient (HOG) in MATLAB	Logistic Regression = 65.33, SVM= 40.33, K-Nearest Neighbour= 66.76, Random Forest = 70.14, Naïve Bayes= 57.61	Less accuracy
Rice plant disease detection using ML	LR, KNN, DT and Naïve Bayes	3 classes :Bacterial plant blight, Brown spot, and plant smut, each having 40 images	LR= 70.83 KNN= 91.66 DT= 97.91 Naïve Bayes = 50	Only for Rice plant
Using ML , raspberry and sensors	Lenet-5	6 classes Dataset: Plant Village	99	Less no of Features .



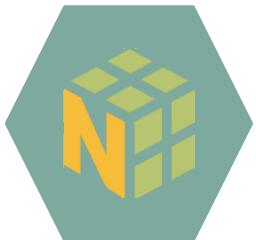
TOOLS AND WHERE THEY ARE USED



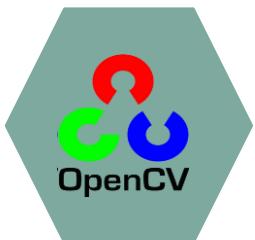
TOOLS AND LANGUAGES



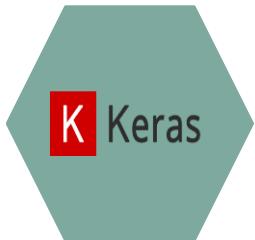
Python



Numpy



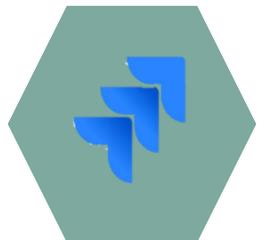
OpenCV



Keras



CSS



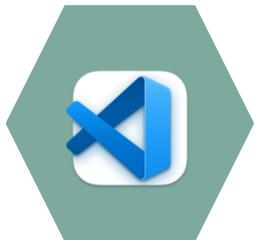
JIRA



TensorFlow



HTML



Visual
Studio



GIT

WHERE ARE THEY USED?



Front End

HTML, CSS: Used for building our website
Visual Studio: For Front end coding

Figma: Used for Designing (Design Interface)



Back End

Keras, Numpy , Tensorflow:
ML Libraries used for model building

Python: Used for programming ML Models

Open CV: For object detection

Django : To connect with Front end



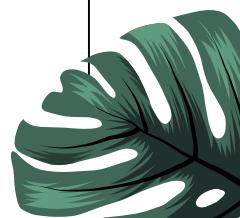
Management

JIRA : Planning and workflow

Teams : Daily meetings

WhatsApp : Daily communications

Git : For Source code management



PROJECT SCHEDULE



Sprint 2 Schedule

Backlog

Q S R LA OG RC UM +3 ⌂ Epic ⌂ Insights View settings

▼ Deliverable 2(Sprint 2) 22 Feb – 14 Mar (11 issues)
Moving close to a perfect design and MVP

Issue	Status	Owner
EPC-12 Architecture Diagram	DONE	OG
EPC-13 Conceptual Diagram	DONE	S
EPC-14 Sequence Diagram	DONE	R
EPC-15 User Stories	DONE	RC
EPC-16 Acceptance Criteria	DONE	UM
EPC-18 Figma Design	DONE	NG
EPC-17 Application Test Cases	DONE	MS
EPC-10 Sprint Burndown Charts and Completed Tasks	DONE	R
EPC-14 Retrospectives	DONE	S
EPC-6 Prototype	DONE	LA
EPC-7 Demo	DONE	R

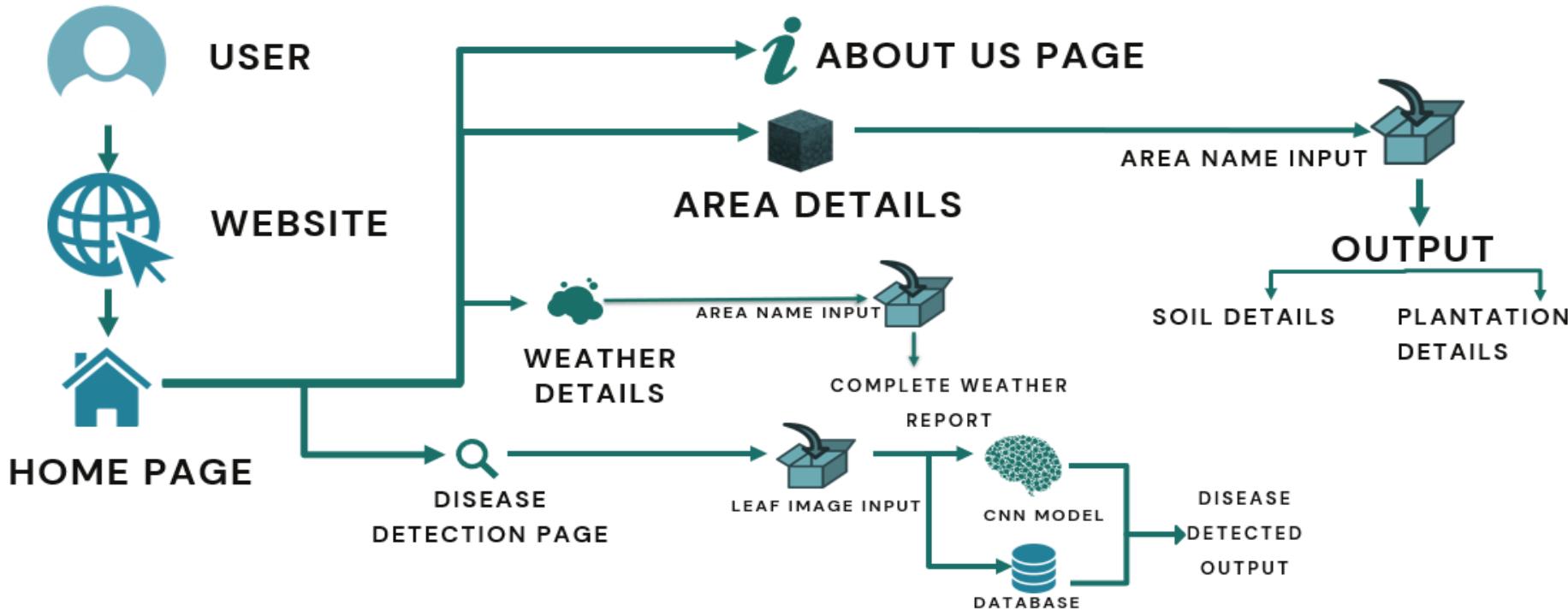
+ Create issue



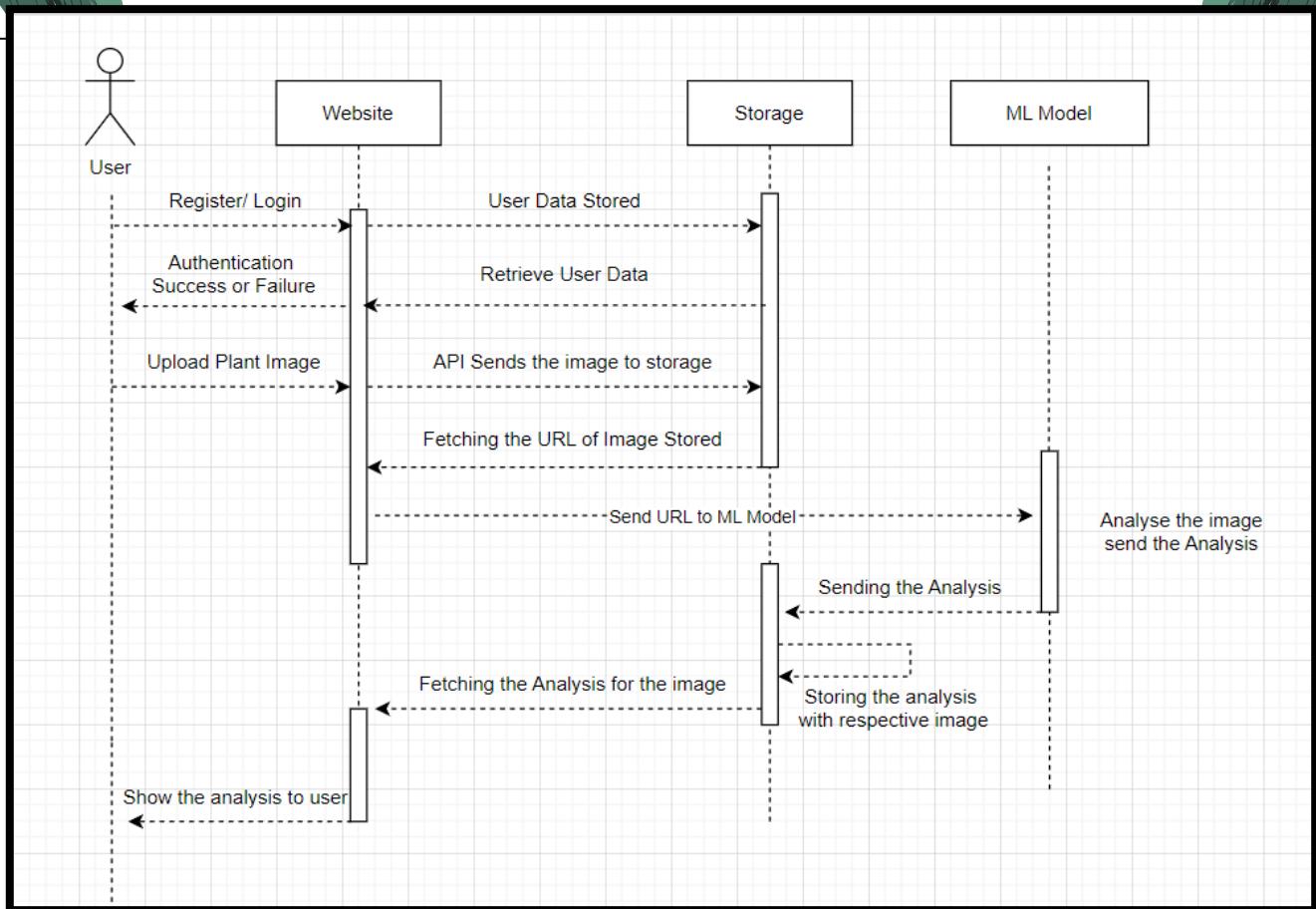
Architectural Diagram



CONCEPTUAL DIAGRAM



SEQUENCE DIAGRAM



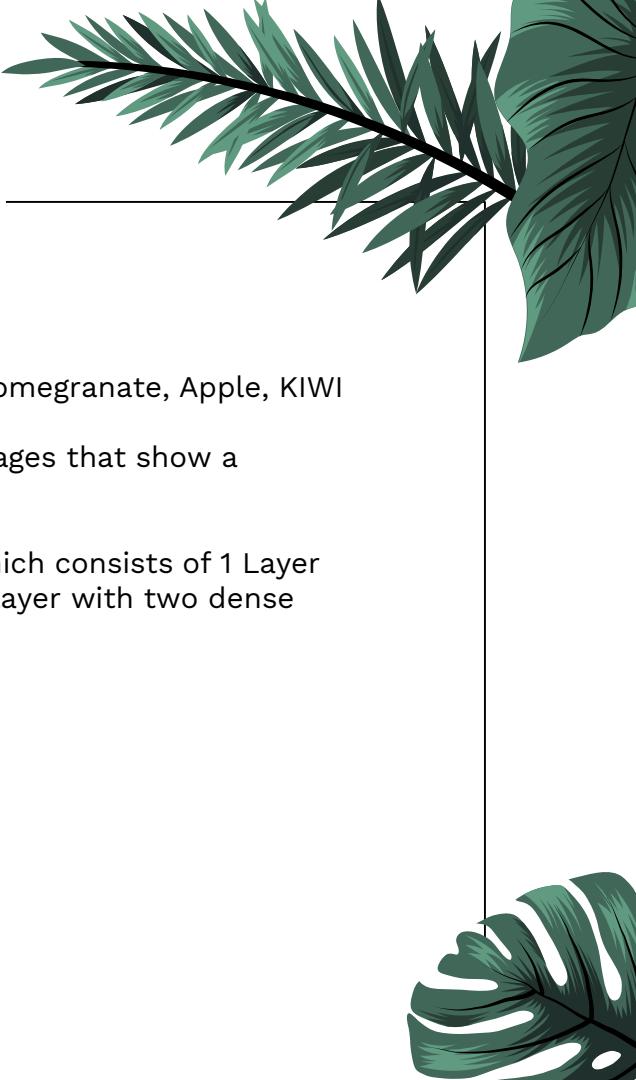


Machine Learning



MACHINE LEARNING

- **Database:** New Plant Disease which contains **84K RBG images**
 - **Training Data:** 80 %
 - **Testing Data:** 20 %
 - **Plant types:** 14 (from which we have taken strawberry, orange, pomegranate, Apple, KIWI for now.)
 - **No. of Classes:** 38 (while excluding healthy leaves, 26 types of images that show a particular disease in a particular plant).
- **Model:** **Vision Transformer model**, it is good for image classification which consists of 1 Layer of ViT(Vision transformer) with one flatten layer, 2 batch normalization layer with two dense layer. Total 6 layers.
- **Metrics:** Accuracy and losses
- For backend we are using Django framework to connect with front end.





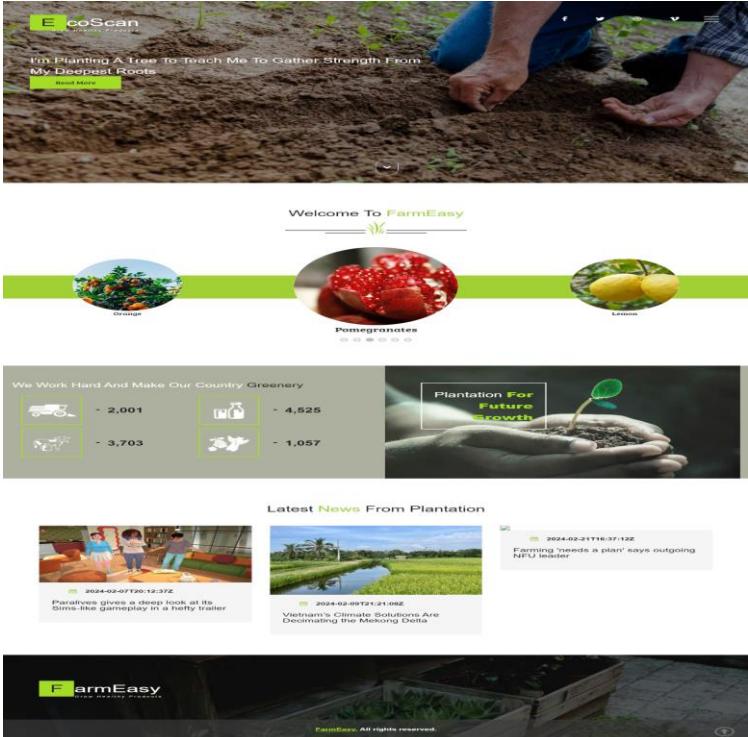
MINIMAL VIABLE PRODUCT



HOME PAGE

- A welcoming header that introduces the user to the application, setting a positive and inviting tone.
- A section featuring the latest news related to agriculture, keeping users informed about relevant updates and developments.
- Various buttons strategically placed to redirect users to different pages within the application, providing easy access to specific features or sections.
- Conveniently placed links or buttons that swiftly redirect users to the application's social media platforms.
- A dedicated section showcasing statistics related to the application.

PROTOTYPE



HOME PAGE

PROTOTYPE

ABOUT US PAGE

- A friendly and inviting introduction at the top of the page, creating a positive tone and making users feel welcomed upon entering the application.
- Clearly labeled tabs, such as 'Home,' 'Area Details,' 'About Us,' etc., facilitating easy navigation and ensuring users can quickly access specific sections of the application.
- A dedicated portion of the page explaining the reasons for users to choose the application. This section likely highlights the unique features, benefits, or values that set the application apart.
- Information about the application's team, providing users with insights into the individuals behind the scenes. This personal touch can enhance trust and connection.

Why Choose Us

Category	Value
Seeds	78%
Growth	54%
Economy	76%
Planning	80%

Agriculture Not Only Gives Riches To A Nation, But The Only Riches She Can Call Her Own

A B O U T U S

PROTOTYPE

AREA DETAILS

- User-friendly interface allowing users to select their desired area, enhancing customization and providing relevant information based on geographical preferences.
- Detailed information on the soil types in the selected area, aiding users in understanding the soil composition and its suitability for different types of plantations.
- A section suggesting suitable plantations for the chosen area, helping users make informed decisions about what crops or plants thrive in the specific soil conditions of their selected region.



A screenshot of a web application interface titled "SELECT AREA". The interface has a header with "EcoScan" and "Soil Analysis". Below the header, there are two main sections: "Red Soil" and "Corn". The "Red Soil" section contains a description of the soil type and a photo of red soil. The "Corn" section contains a photo of a corn plant. There is a "SUBMIT NOW" button at the top right of the main content area.



A r e a D e t a i l s

PROTOTYPE

WEATHER FORECAST PAGE

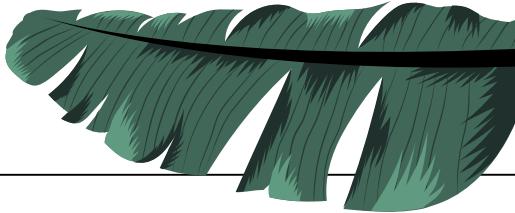
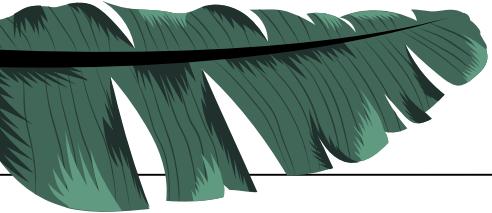
- An interactive feature allowing users to choose a specific area for which they want to check the weather forecast, providing localized and relevant information.
- A visually appealing and user-friendly layout that facilitates easy comprehension of weather data, enhancing the overall user experience.
- The ability to refresh or update the weather information in real-time, keeping users informed with the latest and most accurate forecasts.
- Design considerations to ensure the weather forecast page is accessible and user-friendly across various devices, including desktops, tablets, and cell phones.

A screenshot of a weather forecast interface. At the top, a dropdown menu is set to 'Ahmedabad'. To the right is a green 'SUBMIT NOW' button. Below the dropdown, a summary of weather data is displayed:

Maximum Temperature : 36.03000000000004
Temperature : 26
Minimum Temperature : 26.02000000000004
Humidity : 22
Pressure : 1013
Weather Report : sunny



Weather Details



PROTOTYPE

DISEASE DETECTION PAGE

- A user-friendly interface allowing users to upload images of plant leaves for disease detection, promoting ease of use and accessibility.
- Presentation of detected disease name, stage, description, precautions, and recommended supplements based on the uploaded image.
- An informative section explaining the importance of detecting diseases in plants. This could include preventing crop loss, maintaining agricultural productivity, and ensuring overall plant health.
- Clear and concise steps outlined to prevent plant diseases. This may include practices such as regular inspection, timely treatment, and maintaining optimal growing conditions.
- Know Why is it necessary to detect disease in plant ?
- Check Prevent Plant Disease steps.



[HOME](#) / [PLANT DISEASE DETECTION](#)

Plant Disease Detection

Why is it necessary to detect disease in plant ?

Plant diseases affect the growth of their respective species. In addition, some research gaps are identified from which to obtain greater transparency for detecting diseases in plants; even before their symptoms appear clearly, diagnosis is one of the most important aspects of a plant pathologist's training. Without proper identification of the disease and the disease-causing agent, disease control measures can be a waste of time and money and can lead to further plant losses. Proper disease diagnosis is necessary.

Choose File 1.JPG

Simply upload your plant's leaf image and then see the magic of AI.

Submit

Prevent Plant Disease follow below steps:

1. Follow Good Sanitation Practices.
2. Fertilize to Keep Your Plants Healthy.
3. Inspect Plants for Diseases Before You Bring Them Home.
4. Allow the Soil to Warm Before Planting.
5. Ensure a Healthy Vegetable Garden By Rotating Crops.
6. Provide Good Air Circulation
7. Remove Diseased Stems and Foliage

[More info](#)



USER STORIES



User Stories

ID	User Story	Status	Place/Feature
PD-01	As a user, I want to upload an image of a plant leaf to detect diseases.	To be done	Disease Detection
PD-02	As a user, I want to receive detailed information about the detected plant disease.	To be done	Disease Detection
PD-03	As a user, I want to view prescriptions and suggested supplements for the detected disease.	To be done	Disease Detection
PD-04	As a user, I want to know the various cures and preventive measures for the detected disease.	To be done	Disease Detection
PD-05	As a user, I want to keep the history of previous detected diseases.	To be done	Disease Detection
PD-06	As a user, I want to check the current weather conditions in my area.	To be done	Weather Information
PD-07	As a user, I want to view detailed weather reports and forecasts for agriculture planning.	To be done	Weather Information
PD-08	As a user, I want to check soil type and recommended plantations for my geographical area.	To be done	Agriculture Details
PD-09	As a user, I want information about suitable crops and growth conditions for my area.	To be done	Agriculture Details
PD-10	As a user, I want to see the latest news related to agriculture and farming practices.	To be done	Agriculture News
PD-11	As a user, I want to receive notifications or updates about my uploaded plant reports.	To be done	Notification System
PD-12	As a user, I want to explore and learn about new farming technologies and practices.	To be done	Agriculture Information

ACCEPTANCE CRITERIA



Acceptance Criteria		
Scenario	Criteria	Summary
User uploads an image for disease detection	The uploaded image should be in a common image format (JPEG, PNG, etc.) and should contain a clear view of the plant leaf. The system should analyze the image and accurately identify the plant disease.	Ensure that users can conveniently upload plant images, and the system provides accurate disease identification results.
User receives detailed information about the identified disease	Once the disease is identified, the system should display the name of the disease, prevention supplements, disease stage, and other relevant details.	Users should be provided with comprehensive information about the detected plant disease, including preventive measures, disease stage, and additional details for better understanding and management.
User explores reports for a specific area	Users should be able to select a geographical area and view reports related to plant diseases in that region. The system should display a detailed report, including the prevalent diseases, their severity, and any recommended actions.	Allow users to explore plant disease reports for a specific location, enhancing their ability to monitor and manage plant health in different regions.
User checks soil type and plantation details of a selected area	Users should have the option to input a specific location and receive information about the soil type and details of the existing plantation in that area.	Enable users to access valuable insights into the soil conditions and existing plantations in a designated area, supporting informed decision-making for agricultural activities.
User receives notifications for disease outbreaks in a chosen area	Users can subscribe to receive notifications about disease outbreaks in a specific region. The system should send timely alerts, including disease names, severity, and recommended actions.	Enhance user engagement by offering proactive notifications, enabling users to stay informed about potential plant disease threats in their chosen areas.
User provides feedback on the accuracy of disease identification	Users should have the option to provide feedback on the accuracy of disease identification results. The system should use this feedback to continuously improve its plant disease detection algorithms.	Foster user engagement and system improvement by allowing users to contribute feedback, creating a dynamic and responsive ecosystem for disease detection.



TEST CASES



TEST CASES

Unit to Test	Scenario Test	Data Expected	Results
Image Upload Functionality	User uploads a valid image of a plant leaf.	The system should identify the disease, display prevention supplements, stage, and details.	In Progress
	User uploads an invalid image format.	The system should prompt an error message indicating the unsupported format.	The system correctly handles the invalid format and prompts the user with an appropriate message.
	User uploads an image that is not a plant leaf.	The system should prompt an error message indicating that the uploaded image is not valid.	The system correctly identifies the invalid content and provides a relevant error message.
Area Report Functionality	User requests a report for a specific area.	The system should display information on diseases, soil type, and plantation details for the area.	In Progress
	User requests a report for an invalid or non-existent area.	The system should prompt an error message indicating that the area is not found.	The system correctly handles the request for an invalid or non-existent area.
Soil Type and Plantation Details	User selects an area to view soil type and plantation details.	The system should display accurate information about the soil type and plantation in that area.	In Progress
	User selects an area with no available data.	The system should inform the user that no data is available for the selected area.	The system correctly handles the scenario where no data is available for the selected area.

TEST CASES

Unit to Test	Scenario Test	Data Expected	Results
User Interface and Navigation	User navigates through the website without uploading an image.	The system should provide a user-friendly interface with clear navigation options.	The system correctly presents a user-friendly interface, allowing smooth navigation.
	User attempts to access restricted areas without proper authentication.	The system should prompt the user to log in before accessing restricted areas.	The system correctly enforces authentication for restricted areas.
Prevention Supplements Information	User views prevention supplements for a specific disease.	The system should display accurate information on prevention supplements for the disease.	In Progress
	User views prevention supplements for a disease with no available data.	The system should inform the user that no data is available for prevention supplements.	The system correctly handles the scenario where no data is available for prevention supplements.
Disease Stage Information	User checks the stage of a detected disease.	The system should show the current stage of the detected disease.	In Progress
	User checks the stage of a healthy plant (no disease detected).	The system should indicate that the plant is healthy and not in any disease stage.	The system correctly identifies and communicates that the plant is healthy with no disease stage.
Area Report with Historical Data	User requests a historical report for a specific area.	The system should provide historical data on diseases, soil type, and plantation details.	In Progress
	User requests a historical report for an area with no historical data.	The system should inform the user that no historical data is available for the area.	In Progress



TEST CASES

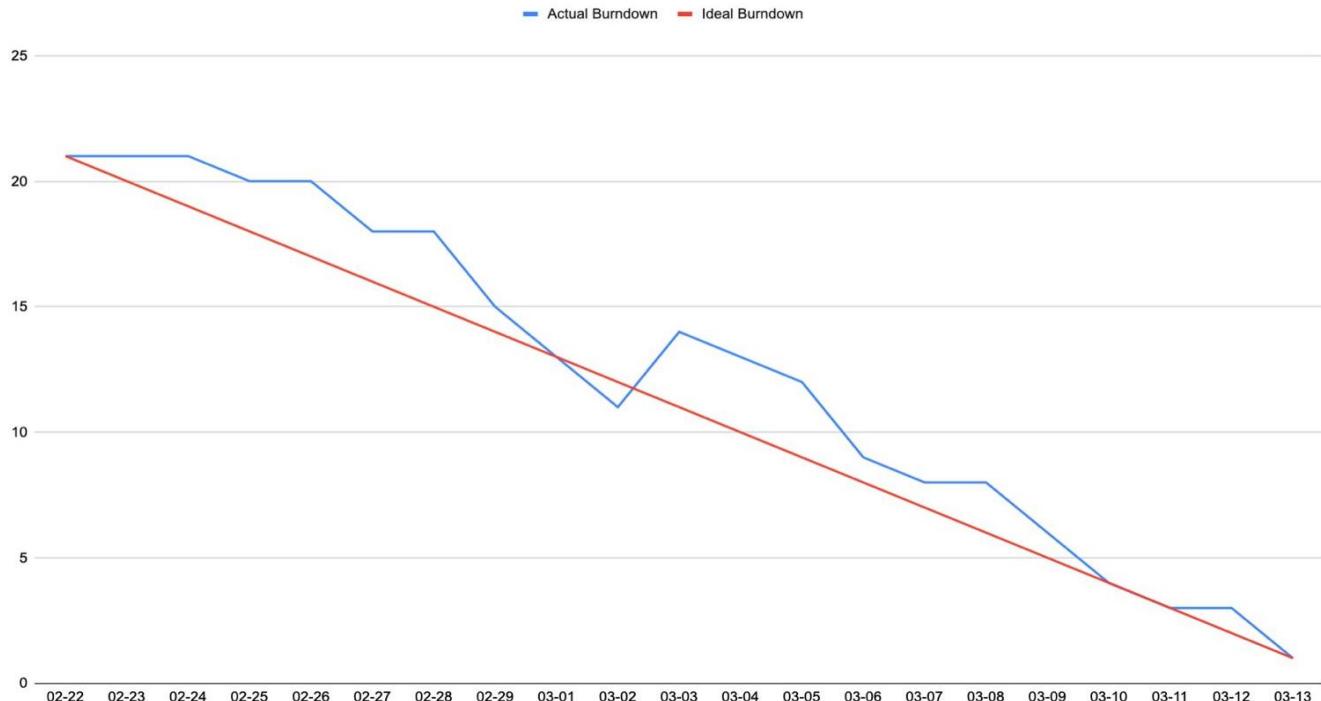
Unit to Test	Scenario Test	Data Expected	Results
User Profile and Preferences	User updates their profile information.	The system should reflect the updated user profile information.	In Progress
	User sets preferences for notification alerts.	The system should send notification alerts based on the user's preferences.	In Progress
Feedback and Support	User submits feedback through the website.	The system should receive the feedback and store it for analysis.	In Progress
	User accesses the support section for assistance.	The system should provide relevant support information and contact details.	In Progress

PROJECT BACKLOG

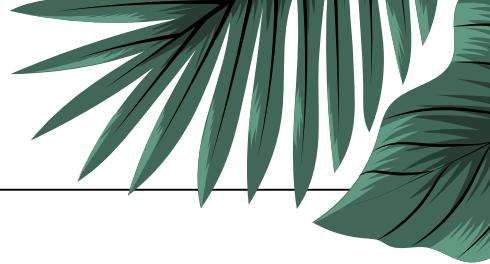


BURNDOWN CHART

Ideal Burndown and Actual Burndown



RETROSPECTIVE



IDEA BOARD

Ideaboardz - ECOSCAN : Team AlgoAvengers

You are screen sharing Stop Share

Welcome Omkar Gurav My Boardz Export

start typing to filter stickies

ECOSCAN : Team AlgoAvengers

What went well			What can be improved			Action Items		
good frontend as designed +4	Organized agenda +1	Goals for sprint 2 were clear +2	Better Communication for task completion +2	do not change the work parts as decided in the first +0	attending meeting by all team members on important days as fixed +2	Updating things on JIRA +11	Github activity to update on server than offline +11	Working more on pursuit of MVP +9
Good communication between team +0	Daily meetings regarding the deliverables +0	Coordination +0	coming up with solutions for all the doubts we have +1	Backend development need to be improved +3	errors to be solved +0	Understanding the actual requirements of the MVP +10	asking more help instead of getting stuck at one point +10	Availability of everyone in the meeting +8
Front end development designs and collaboration was good +0	Setting great team goal for frontend +0	creating a short agenda for meeting +0	backend connections should be improved +0	Make sure we get connected well on all collaborative tool like figma, jira etc +4	better understanding of connectivity between frontend and backend +0	Clear idea what we want to do in the sprints: tasks, wikipage, etc before hand +2	Better understanding of ML models and data to reduce the time leakage happening because of unclear idea +3	Working on backend database +0
Team effort for front end design and implementation +1	Multiple iterations of design to understand better approach +3	giving regular updates on assigned work to make sure everyone is on the same page +2	Keep updating activities on jira and monitoring burndown chart +2	understanding the wider project scope to create a better product +0	Go thorough cross team ideas exchange and understanding their style of scrum +0			
Solving major component issues with frontend together +1	had proper knowledge on tech stack that we will be working +0	Helping other team members when stuck at point +3	not to wait till last day for most of the doubts to be cleared +1	better understanding of flow and backend +0	initially concentrate on what things are possible then go for advance level +0			
clear understanding on work assigned and working towards the goal +0	Functional Requirements +1	working on the tasks assigned and completing them on time +0	clear idea of task distribution implementation +2	Working on the CNN - ML model / try to improve accuracy +2				
Pen and paper design for front-end +0								

Lokeshwar Anchuri
Omkar Shivaling Gurav
Niyati Ghagada
SHRIYA HARAL
Ritika Chougala
Aishwarya ADDALA
Rudra Uday Chobe
Rajat Singh

IDEA Board

ECOSCAN : Team AlgoAvengers

What went well

good frontend as designed + 4	Organized agenda + 1	Goals for sprint 2 were clear + 2
Good communication between team + 0	Daily meetings regarding the deliverables + 0	Coordination + 0
Front end development designs and collaboration was good + 0	Setting great team goal for frontend + 0	creating a short agenda for meeting + 0
Team effort for front end design and implementation + 1	Multiple iterations of design to understand better approach + 3	giving regular updates on assigned work to make sure everyone is on the same page + 2
Solving major component issues with frontend together + 1	had proper knowledge on tech stack that we will be working + 0	helping other team members when stuck at point + 3
clear understanding on work assigned and working towards the goal + 0	Functional Requirements + 1	working on the tasks assigned and completing them on time + 0
Pen and paper design for front-end + 0		

What can be improved

Better Communication for task completion + 2	do not change the work parts as decided in the first + 0	attending meeting by all team members on important days as fixed + 2
coming up with solutions for all the doubts we have + 1	Backend development need to be improved + 3	errors to be solved + 0
backend connections should be improved + 0	Make sure we get connected well on all collaborative tool like figma, jira etc + 4	better understanding of connectivity between frontend and backend + 0
Keep updating activities on jira and monitoring burndown chart + 2	understanding the wider project scope to create a better product + 0	Go thorough cross team ideas ex: MedX and understanding their style of scrum + 0
not to wait till last day for most of the doubts to be cleared + 1	better understanding of flow and backend + 0	initially concentrate on what things are possible then go for advance level + 0
clear idea of task distribution implementation + 2	Working on the CNN - ML model / try to improve accuracy + 2	

Action Items

Updating things on JIRA + 11	Github activity to be updated on server than offline + 11	Working more on pursuing the MVP + 9
Understanding the actual requirements of the MVP + 10	asking more help instead of getting stuck at one point + 10	Availability of everyone for meeting + 8
Clear idea what we want to do in the sprints: tasks, webpage, etc before hand + 2	Better understanding of ML models and data to reduce the time leakage happening because of unclear idea + 3	Working on backend and database + 0

What went well?

- Good front end as planned and designed.
- Multiple iterations of design to understand better approach.
- Helping other team members when stuck at point
- Goals for sprint 2 were clear.
- Giving regular updates on assigned work to make sure everyone is on the same page.



What can be improved?

- Making sure that we get connected well on all collaborative tools like figma, jira, etc.
- Backend development needs to be improved.
- Better communication for task completion.
- Attending meeting by all team members on important days as fixed.



Action Items?

- Updating things on JIRA
- Github activity to be updated on server than local machine.
- Understanding the actual requirements of the MVP
- Better understanding of ML models and data to reduce time and data leakage because of unclear idea.





PLAN FOR SPRINT 3



PLAN FOR SPRINT 3

Projects / Capstone Project CS691

Backlog

Q S R LA OG RC JUM +3 ⚙️ Epic ⚙️ Insights View settings ⚙️ ⚙️ ⚙️

▼ Deliverable 3(Sprint 3) 13 Mar – 11 Apr (10 issues)
Building MVP with basic 5 categories of plants

Issue	Status	Owner
CPC-27 CNN	IN PROGRESS	👤
CPC-19 Ppt updated	TO DO	👤
CPC-20 Backend connection	TO DO	👤
CPC-21 Database	IN PROGRESS	👤
CPC-22 Login Page authentication / firebase	TO DO	👤
CPC-23 Test cases	TO DO	👤
CPC-24 User Stories	TO DO	👤
CPC-25 Acceptance creteria	TO DO	👤
CPC-26 css formatting	TO DO	👤
CPC-28 Technical Paper	TO DO	👤

+ Create issue

PROJECT DEMO



Wiki Page Link

<https://github.com/htmw/2024S-AlgoAvengers>



THANK YOU

