Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:

MINISTRY OF AYUSH

PS Code:

SIH1343

Problem Statement Title:

Identification of Different Medicinal Plants/Raw materials through Image Processing Using Machine Learning Algorithms.

Team Name:

CYBERPUNK

Team Leader Name:

ARYAN NANDA

Institute Code (AISHE):

Institute Name:

VJTI MUMBAI

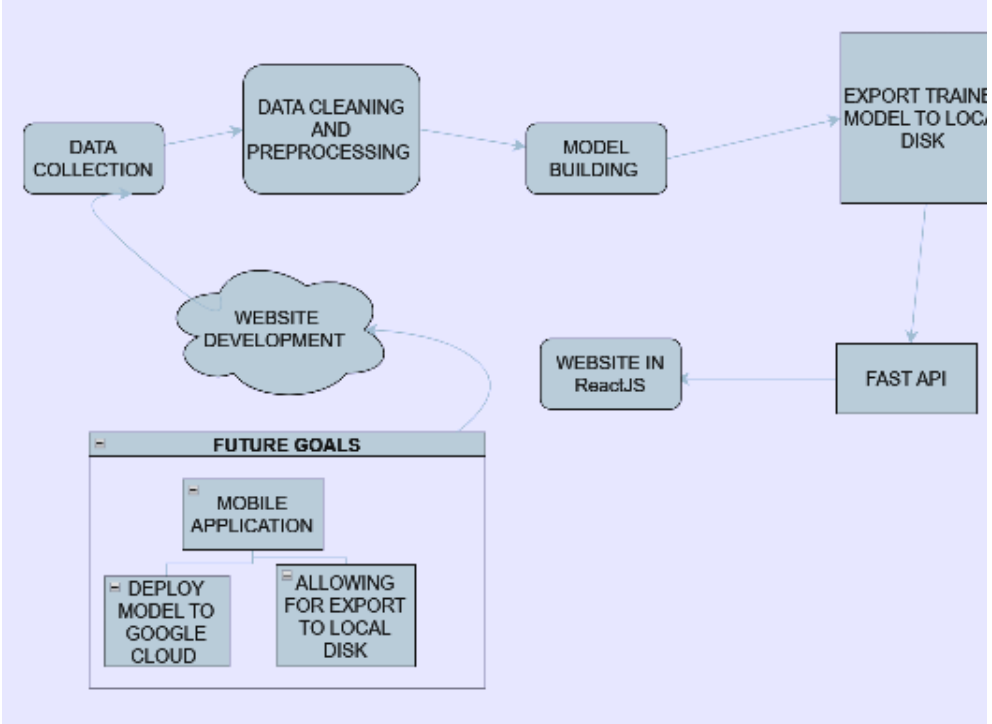
Theme Name:

SOFTWARE

Idea/Approach Details

Describe your idea/Solution/Prototype here:

- We are building a **website** to revolutionize the way people identify and learn more about ayurvedic medicines.
- The heart of this website is a powerful machine learning model based on **deep CNN with over 1.5 lakh parameters** that leverages computer vision. Users can simply point their smartphone or webcam at an Ayurvedic medicine package, and the system will quickly identify and provide information about the medicine.
- The system maintains **an extensive database of Ayurvedic medicines**, including detailed information about their ingredients, benefits, usage, dosage, and any potential side effects. Users can access this information for each detected medicine.
- In addition to **real-time camera detection**, users can manually search for specific Ayurvedic medicines using **the website's search bar**. This allows users to access information about medicines they may already have in their possession.



Describe your Technology stack here:

Idea/Approach Details

Describe your Use Cases here

- Ayurvedic practitioners can use the website to quickly identify Ayurvedic plants and herbs they intend to use in their formulations. This ensures the correct ingredients are used in the preparation of Ayurvedic medicines.
- Students and researchers studying Ayurveda and herbal medicine can benefit from the website to identify and learn about different plants, their properties, and traditional uses.
- Regulatory bodies and quality control agencies can use the website as a tool to verify the authenticity of Ayurvedic plants and herbs for certification purposes.
- Outdoor enthusiasts, hikers, and foragers can use the website to identify wild Ayurvedic plants they encounter in nature, helping them learn about potential uses or hazards.

Describe your Dependencies / Show stopper here

- Our database consist of thousands of ayurvedic plants' information and this can **be displayed in 60 different languages** as per users' choice.
- **Comprehensive Plant Database**: Dive deep into the world of Ayurveda with our extensive plant database. Each plant comes with detailed information on its name, properties, traditional uses, and more.
- **Instant Plant Recognition:** Our state-of-the-art image recognition system, powered by state of the art deep CNN model , instantly identifies Ayurvedic plants with an accuracy of 86%.
- **Community-Driven:** We believe in the power of collective knowledge. Contribute your own findings and insights to our ever-growing database, enriching the Ayurveda community worldwide.

Team Member Details

Team Leader Name: ARYAN NANDA
Branch (Btech/Mtech/PhD etc): BTECH Stream (ECE, CSE etc): CSE Year (I,II,III,IV): II

Team Member 1 Name : ARIV FERNANDES

Branch (Btech/Mtech/PhD etc) : BTECH Stream (ECE, CSE etc): CSE Year (I,II,III,IV): II

Team Member 2 Name: ALINAA BHADRE

Branch (Btech/Mtech/PhD etc): BTECH Stream (ECE, CSE etc): CSE Year (I,II,III,IV): II

Team Member 3 Name: ABHINAV ANANTHU

Branch (Btech/Mtech/PhD etc): BTECH Stream (ECE, CSE etc): EXTC Year (I,II,III,IV): II

Team Member 4 Name: ADITYA VIVEKANAND

Branch (Btech/Mtech/PhD etc): BTECH Stream (ECE, CSE etc): EXTC Year (I,II,III,IV): II

Team Member 5 Name: TANAY GADA

Branch (Btech/Mtech/PhD etc): BTECH Stream (ECE, CSE etc): CSE Year (I,II,III,IV): II