PROPOSAL REPORT OF MAJOR-PROJECT

IV - CSM

Project Batch: Batch 15 **Team Members:** 20BQ1A4214 20BQ1A4210 20BQ1A4219 20BQ1A4224	**Project Guide** N. Nalini Krupa
Problem Statement: "Identification of Different Medicinal Plants/Raw materials through Image Processing Using Machine Learning Algorithms." **Description**: India, with a rich heritage of floral diversity, is well-known for its medicinal plant wealth, but their identification is one of the major burning issues in Ayurvedic Pharmaceutics. Several crude drugs are being sold under the same name in the market leading to confusion and their misidentification. Even the collectors and traders are not completely aware of the exact morphological appearance or differentiating attributes of the many drugs owing to seasonal and geographical availability, and similar characteristics. Moreover, the extensive consumption to meet demand-supply ratio exerts a heavy strain on the existing resources. It further leads to the practice of adulteration, substitution, and disbelief in the curative capability of the system eventually. Thus, software capable of identifying different medicinal plants/ raw materials through Image Processing Using Different Machine Learning Algorithms will be of immense use. It will be helpful at every level viz. wholesaler, distributor, etc. of the supply chain of raw material being utilized in the system.	

	Members Assigned
Software Tools Required: Python, OpenCV, TensorFlow, Keras, Scikit-learn	
Front-End: React JS **Back-End:** Django, MongoDB	4214, 4210 4219, 4224
Bussiness-Logic: Machine Learning, Deep Learning, Computer Vision	

Hardware Specifications: Mini Capacities for Execution of Proposed System
   OS: win 10x / Linux /
   RAM: 1 Gb
   HDD: 1 Tb
   Graphic-Card: 1 Gb	

Features in Proposing System:
Features in Proposing System: • Real-time Identification • Plant Information • Language Support • Image Gallery • Data Export • Search and Retrieval • Feedback and Reporting • Model Selection

Feature Description	Time Duration
Real-time Identification: System involves image recognition tasks, include features to process and analyze images using computer vision techniques**.** Provides instant identification results after image upload.	
Plant Information: Presents detailed information about the identified plant, including its scientific name, common name, uses, and characteristics.	
Image Gallery: Users can view a gallery of their uploaded images and identified plants.	
Model Selection: Users can choose from multiple pre-trained models or select custom-trained models for identification.	4 Weeks
Data Export: Allows users to export identification results and data for further analysis or record-keeping.	
Language Support: Supports multiple languages for a diverse user base.	
Search and Retrieval: Provide users with the ability to search for images based on keywords, tags, or other criteria.	
Feedback and Reporting: Users can provide feedback, report inaccuracies, or request assistance with problematic identifications.	

Model Selection: Users can choose from multiple pre-trained models or select custom-trained models for identification.	
Total Completion Tentative Time Duration	4 Weeks

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