

## Project Initialization and Planning Phase

Date	4 July 2024
Team ID	740059
Project Title	Honey price prediction based on purity
Maximum Marks	3 Marks

### Project Proposal (Proposed Solution) template

The proposal report aims to predict Honey price prediction using machine learning, boosting efficiency and accuracy.

Project Overview	
Objective	The primary objective is to revolutionize the honey industry by leveraging advanced machine learning techniques to predict honey prices with precision and reliability, based on honey purity.
Scope	The project aims to comprehensively analyze and predict honey prices based on various factors affecting honey purity, such as moisture content, pollen count, and sugar content. By integrating machine learning into honey production and pricing, the goal is to optimize resource allocation and maximize profitability for beekeepers and honey producers.
Problem Statement	
Description	Inaccurate predictions of honey prices due to uncertainties in honey purity and lack of robust predictive models hinder optimal resource management and operational planning for beekeepers and honey producers.
Impact	Addressing these challenges will lead to improved operational efficiency in honey production, enhanced resource utilization, and increased profitability for beekeepers and honey producers. By providing accurate price forecasts, the project aims to mitigate risks associated with unpredictable market fluctuations and optimize honey production strategies.
Proposed Solution	

Approach	Implementing machine learning algorithms to analyze historical data on honey purity factors and market trends to develop a predictive model for honey prices.
Key Features	<p>© Development of a machine learning-driven model to predict honey prices based on honey purity factors, such as moisture content, pollen count, and sugar content.</p> <p>© Real-time forecasting capabilities to assist beekeepers and honey producers in making informed decisions about honey production and pricing.</p> <p>© Continuous model refinement through feedback loops and updated data to adapt to changing market and environmental conditions.</p>

### Resource Requirements

Resource Type	Description	Specification/Allocation
<b>Hardware</b>		
Computing Resources	CPU/GPU specifications, number of cores	T4GPUs
Memory	RAM specifications	8 GB
Storage	Disk space for data, models, and logs	1 TB SSD
<b>Software</b>		
Frameworks	Python frameworks	Flask
Libraries	Additional libraries	scikit-learn, pandas, numpy, matplotlib, seaborn
Development Environment	IDE	Jupyter Notebook, Spyder
<b>Data</b>		
Data	Source, size, format	Kaggle dataset, csv