

## Project Initialization and Planning Phase

|               |  |
|---------------|--|
| Date          | 4 July 2024                            |
| Team ID       | 739767                                 |
| 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                              |