

## Project Initialization and Planning Phase

|               |  |
|---------------|--|
| Date          | 15 July 2024   |
| Team ID       | 739885   |
| Project Title | Golden Harvest: A predictive model for apple Quality Assurance |
| Maximum Marks | 3 Marks  |

### Project Proposal (Proposed Solution) template

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

| Project Overview  |  |
|-------------------|--|
| Objective         | "Develop a robust predictive model for apple quality assurance in the Golden Harvest project, ensuring precision and reliability in assessing fruit quality metrics."  |
| Scope             | <p>The scope for the Golden Harvest project aiming to develop a predictive model for apple quality assurance includes several key components:</p> <ol style="list-style-type: none"> <li><b>Data Collection and Integration</b></li> </ol> |
| Problem Statement |  |
| Description       | The Golden Harvest project aims to revolutionize apple quality assurance through the development and implementation of an advanced predictive model.   |
| Impact            | <p>The impact of implementing a predictive model for apple quality assurance in the Golden Harvest project can be profound and multifaceted:</p> <ol style="list-style-type: none"> <li><b>Enhanced Quality Consistency</b></li> </ol>     |
| Proposed Solution |  |

|              |  |
|--------------|--|
| Approach     | <p>Creating a predictive model for apple quality assurance, termed "Golden Harvest," involves several key steps and considerations. Here's an approach you could take:</p> <p><b>1. Define Objectives and Metrics</b></p>  |
| Key Features | <p>To build a predictive model for apple quality assurance, termed "Golden Harvest," it's essential to identify key features that significantly influence the quality of apples. Here are some key features you should consider incorporating into your model:</p> <p><b>1. Physical Characteristics</b></p> |

### Resource Requirements

| Resource Type           | Description                             | Specification/Allocation                         |
|-------------------------|---|--|
| <b>Hardware</b>         |   |  |
| Computing Resources     | CPU/GPU specifications, number of cores | T4 GPU   |
| Memory                  | RAM specifications                      | 8GB  |
| 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, version control                    | Jupyter Notebook, PyCharm                        |
| <b>Data</b>             |   |  |
| Data                    | Source, size, format                    | Kaggle dataset,614, csv 1year dataset,690, csv   |