**Model Development Phase Template**

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| Date | 15 July 2024 |
| Team ID | 739885 |
| Project Title | Golden Harvest: A predictive model for apple quality assurance |
| Maximum Marks | 5 Marks |

**Feature Selection Report Template**

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

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| **Feature** | **Description** | **Selected (Yes/No)** | **Reasoning** |
| Aid | Uniquely identify an apple | Yes | Firmness and scent tend to be the most essential for consumers among these characteristics. The scent of apples is influenced by sugars, organic acids, and phenolic substances. |
| Size | Height and width of an apple | Yes | Apple sizes range from 48 to 216. The larger the number, the smaller the diameter of the apple. |
| Weight | It will be measured in the form of kg | Yes | The average apple is between 70 and 100 grams or 0.33 pounds or 0.7 and 1N. |
| Sweetness | It describes how it is sweet | Yes | 4, the soluble solid content (SSC) expressed as °Brix is commonly used as an estimate of fruit sweetness and is included in assessments of the postharvest quality of apples [18, 61]. |
| Crunchiness | It describes how it is crunchy | Yes | When an apple is mature, its cells are fully developed and filled with moisture |
| Juiciness | It describes how it is juicy | Yes | When you bite into a crunchy apple the individual cell walls rupture and the juice is released from the sack, so you get an instant sweet juicy hit. |
| Ripe ness | It explains how the fruit ready to eat | Yes | ethylene production gradually increases to a peak, and then gradually decreases; the fruit then moves into the aging stage. |
| Acidity | How much it is acidity | Yes | The higher the level of acidity, the more tart the flavor and the better the thirst-quenching properties of processed soft drinks. |