**Model Development Phase Template**

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| --- | --- |
| Date | 4 July 2024 |
| Team ID | 740509 |
| Project Title | Honey price prediction based on purity. |
| 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** |
| Month | Month of the year | No | |  | | --- | |  |  |  | | --- | |  |   Seasonal effect on honey production and demand   |  | | --- | |  |  |  | | --- | |  | |
| Average  Temp | |  | | --- | | Average temperature |  |  | | --- | |  | | Yes | |  | | --- | |  |   temperature influences bee activity and honey production |
| Precipitation | |  | | --- | | Total precipitation |  |  | | --- | |  | | Yes | |  | | --- | | Affects flower availability and nectar production |  |  | | --- | |  | |
| Location | |  | | --- | | Geographic location where honey was produced |  |  | | --- | |  | | Yes | |  | | --- | |  |  |  | | --- | |  |   different locations may have varying price trends. |
| Hive Density | |  | | --- | | Number of beehives per square kilometer |  |  | | --- | |  | | |  | | --- | | Y |   Yes | |  | | --- | | More hives may indicate higher production. |  |  | | --- | |  | |
| Vegetation  Index | Satellite-derived index of vegetation health | Yes | |  | | --- | |  |  |  | | --- | |  |   Healthy vegetation supports bee activity. |
| |  | | --- | |  |  |  | | --- | |  |   Pesticide  Use | |  | | --- | |  |  |  | | --- | |  |   Frequency of pesticide application | Yes | |  | | --- | | Pesticides can impact bee health and yield |  |  | | --- | |  | |
| |  | | --- | | Flowering  Season |  |  | | --- | |  | | |  | | --- | | Duration of flowering season for major honey plants |  |  | | --- | |  | | Yes | |  | | --- | | Timing affects honey yield and quality. |  |  | | --- | |  | |
| |  | | --- | |  |   g  lobal  Demand | |  | | --- | |  |  |  | | --- | |  |   Global demand for honey | Yes | Demand influences market price. |
| |  | | --- | |  |   Local  Economic  Factors | |  | | --- | |  |  |  | | --- | |  |   Local economic conditions affecting honey production | Yes | Economic stability affects pricing. |
| Honey  Quality | |  | | --- | | Quality rating of honey |  |  | | --- | |  | | Yes | Higher quality may fetch premium prices. |
| Competition | |  | | --- | |  |   Number of local honey producers | Yes | Competitors impact local market dynamics. |
| Consumer  Trends | |  | | --- | | Trends in honey consumption |  |  | | --- | |  | | Yes | |  | | --- | |  |   Consumer preferences influence prices. |
| |  | | --- | |  |  |  | | --- | |  |   Exchange  Rates | |  | | --- | |  |  |  | | --- | |  |   Exchange rates affecting export/import dynamics | Yes | |  | | --- | |  |   Currency fluctuations impact pricing. |