SELF-EVALUATION REPORT

Project: Crop Suggestions using Data Mining Approaches

Team Members:

1. Prakhar Suryavansh (2017B4A71017H)
2. Harsh Kumar (2017A7PS1584H)
3. Ameya Salankar (2017A7PS0182H)
4. Atharva Sune (2017A7PS0183H)

Team Achievements / Reflections

In this project we created a model using different data mining techniques to suggest the suitable crops that could be grown, given the specific conditions, to get maximum yield. In the process of creating this model, we also implemented Apriori and FP Growth algorithms from scratch. These implementations are generalised and can be applied to other data in addition to our own dataset. In short, these implementations can be used in a standalone way i.e. as libraries.

We got a chance to understand the importance of data mining. We experienced different data mining techniques that could be used to extract useful patterns from large amounts of data. Specifically working on agricultural data, we understood the benefits and use of data mining to farmers, agriculture and in turn, the overall economy of our country.

During this project we had a great learning experience not only in terms of coding but also we observed immense skill enhancement in terms of teamwork and coordination. Working together as a team proved to be very valuable for all of us.

Overall Team Contribution

We, as a team, have put our best efforts to complete this project and create something useful. Everyone was supportive and contributed equally. Overall, we think we gave our best.

Individual Team Contributions

- **Prakhar Suryavansh**
  - Preprocessing
    - Data Cleaning
    - Numerosity Reduction
    - Feature Construction
  - Implementing K-means Clustering
- **Harsh Kumar**
  - Preprocessing
    - Normalization
    - Discretization
    - Binarization
  - Implementing Apriori algorithm for ARM

- **Ameya Salankar**
    - Visualization
        - Scatter Plot
        - Box plot
    - Implementing FP Growth algorithm for ARM
- **Atharva Sune**
    - Visualization
        - Heat maps
        - Line Plots
    - Implementing DBSCAN for clustering
    - Analysis of K-Means through Visualization