CROP RECOMMENDATION SYSTEM

CREATORS

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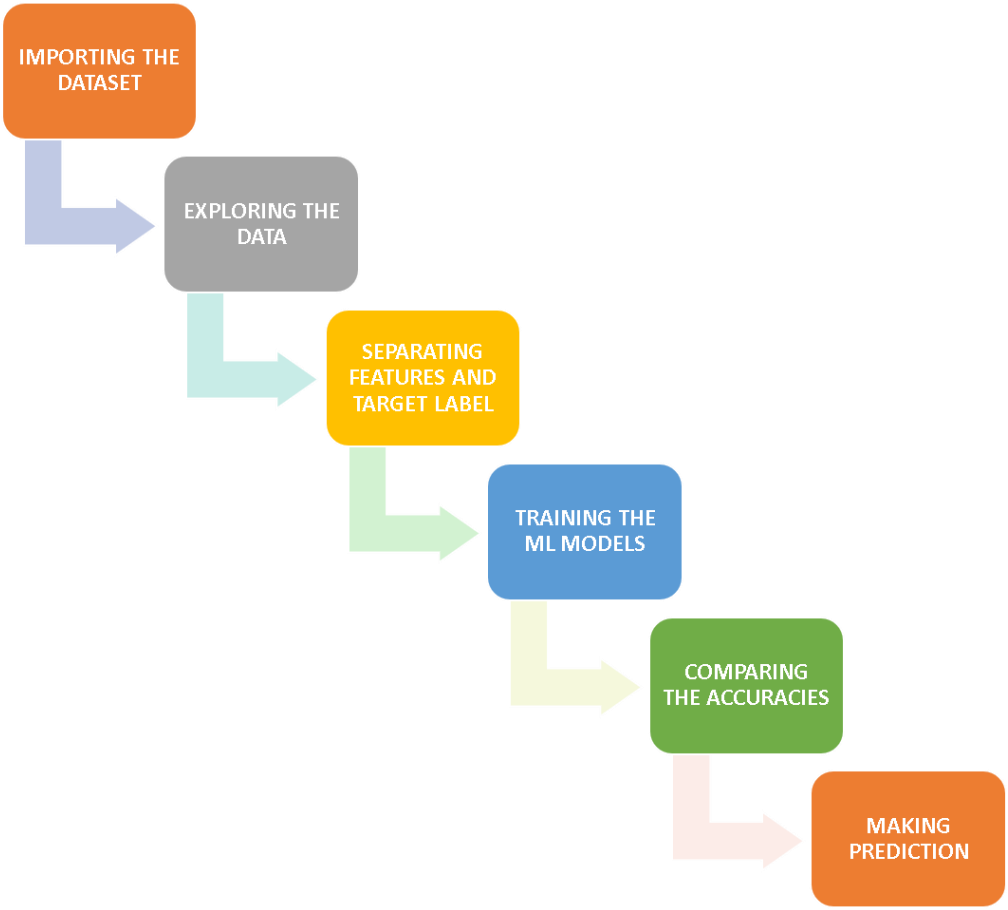
PROBLEM STATEMENT

Landless or marginal farmers lack the resources to either buy or lease more land or invest in farm infrastructure. In order to mitigate this agrarian crisis in the current status quo, there is a need for better recommendation systems to alleviate the crisis by helping the farmers to make an informed decision before starting the cultivation of crops.

SUGGESTED SOLUTION

- Create an ML Application that takes user input that includes parameters like soil quality, humidity, rainfall, and temperature.
- The aim is to choose an ML model that has the highest accuracy to make optimum predictions.

WORKFLOW



NOVELTY

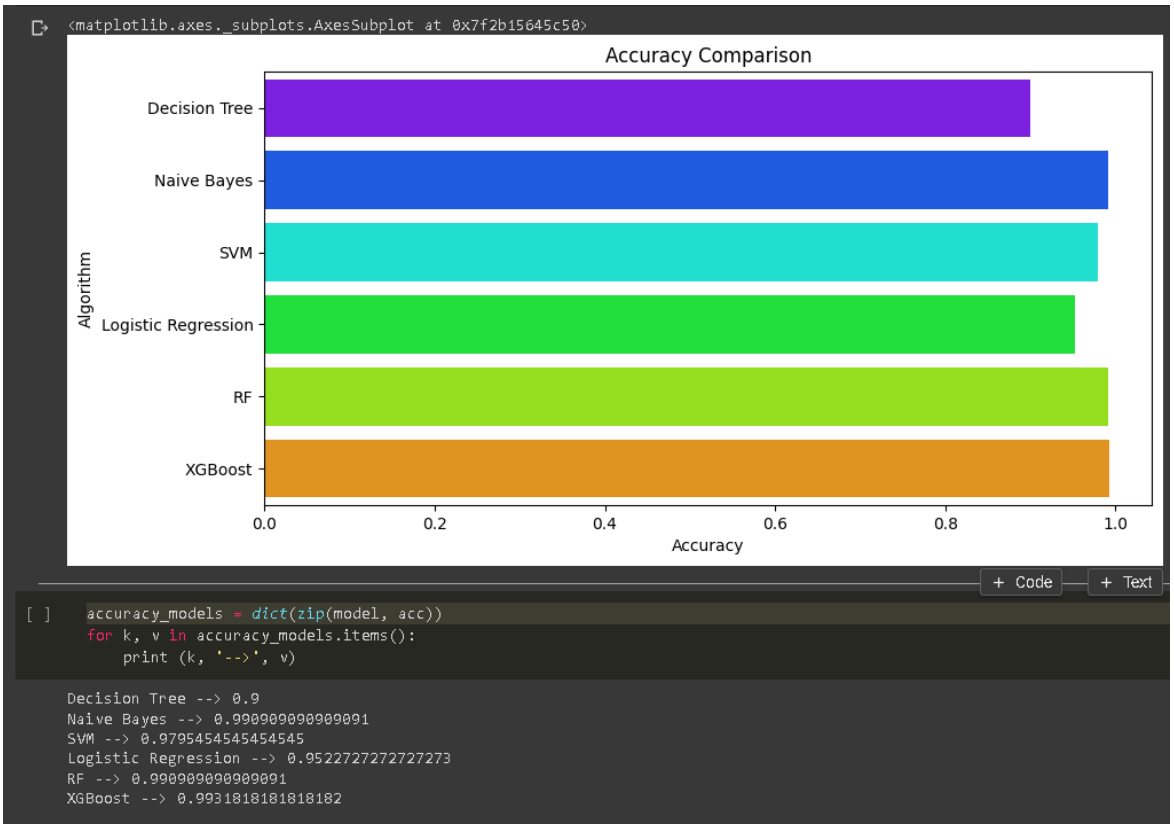
Our suggested work is different from the already available implementations in the following manner-

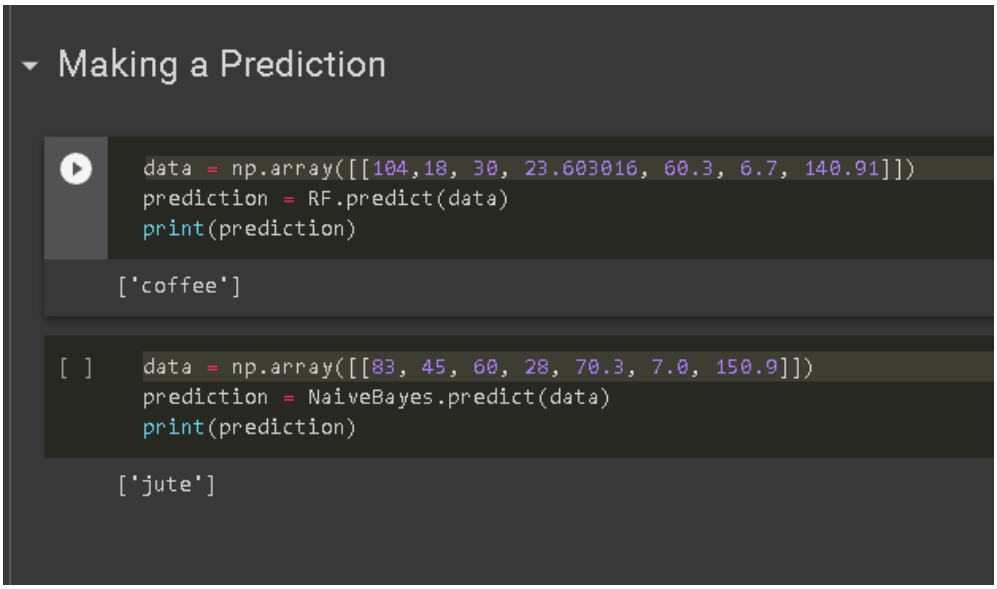
1. We don't rely on a single ML model, but since we are dealing with quantitative data, we aim at training multiple models best suited for such type of data.
2. We show a deep comparison between the models to choose the best model for making predictions.
3. Apart from only training the models, we also save them as pickle objects that can be used for deployment and creating web applications.

IMPLEMENTATION

https://github.com/theshredbox/Team-2_Crop-Recommendation-System

RESULTS





CONCLUSION

Today, machine learning in agriculture is one of the fastest-growing areas. Its applications in the farming range from simple analytics systems to complex robotics hardware. Therefore, a growing number of stakeholders are raising awareness of the potential advantages of using ML agriculture and collaborating with modern-day technologies to get reliable input data for the data analyses.

Data-driven approaches, in turn, foster better decision-making, greater efficiency, and less waste. In the coming years, we'll witness more digital agriculture with a projected market value of $4 Billion by 2026.

REFERENCES

https://indatalabs.com/blog/ml-in-agriculture

https://www.kaggle.com/datasets/atharvaingle/crop-recommendation-dataset