Team Introduction:
Hello everyone. Our team members are Uday, Laya, Nikhil, Snehitha
We are currently 4th year IT undergraduates at Vasavi College of Engineering.

Our project is about Zero Hunger and our prompt is Precision farming.

Brief lit review:
Our work is based on ensembled Machine Learing algorithms.
Ensembled ML algorithms definition:
Ensemble method in Machine Learning is defined as the multimodal system in which different classifier and techniques are strategically combined into a predictive model.

Data/prompts:
The data is provided by the Data For Social Good Hackathon authority. We picked this SDG/ prompt with an intention to reduce the hunger crisis of India. One of the main reasons for this is the farmers not knowing the right crop to grow at the right time.

Data Analysis:
We formatted the data in a workable way by removing the redundant and unimportant features during the data preprocessing. Then we merged the two csv file dataframes and created a single DataFrame.
A part of the single dataframe thus formed is taken for training and testing after random sampling.
We created an ensembled model of 4 ML models i.e., decision tree regressor, SVR, RandomForestRegressor, GradientBoostingRegressor.
Then we calculated and plotted the R2 coefficient for all the models.

Insights/ Conclusion:
Though each model has it's disadvantage, when they are ensembled together, they can give you a better accuracy on the unseen data.

Future Directions:
This project can be expanded by giving suitable suggestions to maximize the yield and another feature would be integrating these models with GUI and making it easy for the users to know the right crop to grow at the right place and at the right time.