Model Optimization and Tuning Phase

Date	07 July 2024
Team ID	739665
Project Title	BlueBerry Yield Prediction
Maximum Marks	2Marks

Performance Metrics Comparison Report (2 Marks):

A Performance Metrics Comparison Report systematically evaluates the effectiveness of various machine learning models or algorithms by comparing key metrics such as MAE,MSE,R-Square. This report highlights the strengths and weaknesses of each model, providing insights into their performance on different datasets or tasks. By presenting a clear, detailed analysis, the report aids in selecting the most suitable model for deployment, ensuring optimal performance in realworld applications.

```
[46]:  error_rec={
            'linearreg':{
                "mae":mae_lr,
                "rmse":rmse_lr,
                "r2":rsq_lr*100
            },
            'randomforest':{
                "mae":mae_rf,
                "rmse":rmse_rf,
                "r2":rsq_rf*100
            },
            'decisiontree':{
                "mae":mae_dt,
                "rmse":rmse_dt,
                "r2":rsq_dt*100
            },
            'xgboost':{
                "mae":mae_xgb,
                "rmse":rmse_xgb,
                "r2":rsq_xgb*100
            },
        }
        pd.DataFrame(error_rec).plot(kind="bar",
                            color=[
                                    sns.color_palette("pastel")[1],
                                    sns.color_palette("pastel")[2],
                                    sns.color_palette("pastel")[3],
                                    sns.color_palette("pastel")[4]]);
```