



## **Model Optimization and Tuning Phase**

Date	07 July 2024
Team ID	739915
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 real-world 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]]);
```





