**PRCP-1008-NBAShotSelection**

**Problem Statement**

Task 1:-Prepare a complete data analysis report on the given data.

Task 2:- Help all stakeholders develop more effective game strategies. The goal is to find the best model that has the highest accuracy and F1-score.

Task 3:-Our objective is to build a shot prediction model, whether the player will score or not score, based on the circumstances under which they are made into consideration.

**Dataset Link:**

This data contains the location and circumstances of every field goal attempted by Kobe Bryant took during his 20-year career. Your task is to predict whether the basket went in (shot\_made\_flag).

**Domain:** Sports

Link : <https://d3ilbtxij3aepc.cloudfront.net/projects/CDS-Capstone-Projects/PRCP-1008-NBAShotSelection.zip>

**Attribute Information :**

**The field names are self explanatory and contain the following attributes:**

* action\_type
* combined\_shot\_type
* game\_event\_id
* game\_id
* lat
* loc\_x
* loc\_y
* lon
* minutes\_remaining
* period
* playoffs
* season
* seconds\_remaining
* shot\_distance
* shot\_made\_flag (this is what you are predicting)
* shot\_type
* shot\_zone\_area
* shot\_zone\_basic
* shot\_zone\_range
* team\_id
* team\_name
* game\_date
* matchup
* opponent
* shot\_id

**Model Comparison Report**

Create a report stating the performance of multiple models on this data and suggest the best model for production.

**Report on Challenges faced**

Create a report which should include challenges you faced on data and what technique used with proper reason.

Note:-All above task has to be created on single jupyter notebook and share the same for final submission.