**Term Project Documentation**

**By**

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1. **Data dashboard example**

The dashboard example implemented can be found in path:

TermProject/1

1. **Story telling with your data**

**Explanation:**

The data we have chosen for analysis is the European soccer data which was used in lab 2. We have used one table in particular (player\_attributes) and merged it with data about players who currently represent Manchester United (A soccer club in England) to analyze the performance and ability of the current Manchester United Squad.

**Data Schema:**

1. **player\_attributes.csv**

id, player\_fifa\_api\_id, player\_api\_id, date, overall\_rating, potential, preferred\_foot, attacking\_work\_rate, defensive\_work\_rate, crossing, finishing, heading\_accuracy, short\_passing, volleys, dribbling, curve, free\_kick, accuracy, long\_passing, ball\_control, acceleration, sprint\_speed, agility, reactions balance, shot\_power, jumping, stamina, strength, long\_shots, aggression, interceptions, positioning vision, penalties, marking, standing\_tackle, sliding\_tackle, gk\_diving, gk\_handling, gk\_kicking, gk\_positioning, gk\_reflexes

1. **ManUtd3.csv**

sl\_no, id, player\_api\_id, position, player\_name, player\_fifa\_api\_id, birthday, height, weight, url

**Scope of Analysis:**

1. Dividing player attributes into General, Defense, Midfield and Attack.



1. Sub-diving each attribute rating into Excellent, good, average and poor.



1. Making a trend line of overall rating for a player over last 6 years.



1. Comparing each player with respect his current rating and potential rating



1. **Implement a data product**

**Explanation:**

All the workbooks from the previous exercise are combined into a single dashboard. Two additional features are added.

1. **Summary of a player**

A player summary is a calculated field where a summary is given for a player based on his attributes. The summary is defined as follows:

|  |  |  |
| --- | --- | --- |
| **Attribute Name** | **Minimum rating** | **Summary** |
| Overall Rating | 85 | Star Player |
| Acceleration | 85 | Speedster |
| Aggression | 85 | Aggressive |
| Dribbling | 85 | Master Dribbler |
| Heading Accuracy | 85 | Ariel Specialist |
| Sliding Tackle | 85 | Fearless challenger |
| Birthday | 1993 | Youngster |



1. **Predicted rating for next year**

Rating for next year is predicted using linear model. Rating of last 6 years are used to predict the rating of next year. Tableau is connected with R to predict the rating. The calculated attribute is ‘PredictedRating’



1. **Document the product developed**

The product developed has been hosted [here](https://public.tableau.com/profile/publish/Man_Utd_Squad/Dashboard1#!/publish-confirm)

**Steps to use:**

Click on each player name to see the player details and his prediction



**Note:**

Predicted Rating in the hosted application is a hardcoded value. It is not possible to host an external service (R script in this case) to tableau public as it is not supported. To test this feature kindly check it using the tableau file present under

TermProject/3/ManUtd.twb

To activate R-service in tableau follow the below steps

1. In R studio type the following commands
   1. library(Rserve)
   2. Rserve(args="--no-save")
2. In Tableau go to Help -> Setting and Performance -> Manage External Service connection and fill the details as below and click ok

