Project 1 Proposal

Objective: *We have been contracted by the Orlando Magic Front Office to do a team evaluation since the regular season has concluded. We have been instructed to evaluate their players’ performance based on performance metrics and compare their players to other league performers. With this information the Front Office will use it to locate holes in the team, continue to develop players where they need to develop or contract new players to fill the needed role*.

Plan of Action:

We will have 5 major talking points in this proposal. They are the following:

* Orland Magic Team
  + Create a DF with each player info we will measure the following metrics:
    - Points
    - Rebounds ( Defensive & Offensive)
    - Assists
    - Minutes
    - Games Played
    - 3 points attempted.
    - 3 point percentage made
    - Free throw attempted.
    - Free throw percentage made.
    - Blocks
    - Turnover Rate
    - Efficiency rating (EFF)

Calendar

Description automatically generated

[https://www.nba.com/stats/players/traditional?CF=TEAM\_ABBREVIATION\*E\*orl&SeasonType=Regular%20Season&dir=A&sort=GP](https://www.nba.com/stats/players/traditional?CF=TEAM_ABBREVIATION*E*orl&SeasonType=Regular%20Season&dir=A&sort=GP)

This is the data our DF will contain. We can use this link to verify if the information we output is accurate.

* Comparing players to other league players:
  + We will divide the previous DF into 3 categories.
    - Guards
    - Forwards
    - Centers
  + Once that is done, we will use the NBA\_API and group the top performers in the league in a same way. That will make it easier for us to compare the correct players to one another.
  + We will use the same metrics that we measure for the orlando players to the league leaders.
* Compare Team performance to the Best, Middle table, and Worst teams in the league.
  + Measure Performance as a team
  + Measure Team stats to The Milwaukee Bucks, Minnesota Timberwolves, and Detroit Pistons
  + Use that to support how individual performance impacts team performance.

We can each take a turn with one of the 5 points to present and I can make a conclusion that not only adds context to the data but some outside variables that aren’t mentioned.

Issues- Only 5 Orlando magic players are going to be in the API. IF we figure out how to use the endpoints we can probably find them all but I am a bit confused. I am linking all the information as well as YouTube links of how to extract data with URL if we can’t find it in the API, if we can statically input the variables. Also player positions are not located in the API with the player data but I can go through the list and manually position the players correctly and help create an appropriate list for Orlando and the League Leaders.

API link-

<https://pypi.org/project/nba-api/>

How to Use API or scapple the data:

<https://medium.com/@ben.g.ballard/how-to-analyze-nba-data-using-python-and-the-nba-api-429b0e65454d>

<https://www.youtube.com/watch?v=NCyPY-jfb3I>

<https://www.youtube.com/watch?v=nHtlRlWmTV4>

<https://github.com/swar/nba_api>

THIS Is every NBA player data:

[https://www.nba.com/stats/players/traditional?CF=TEAM\_ABBREVIATION\*E\*orl&SeasonType=Regular%20Season&dir=A&sort=GP](https://www.nba.com/stats/players/traditional?CF=TEAM_ABBREVIATION*E*orl&SeasonType=Regular%20Season&dir=A&sort=GP)

LeagueLeader DATA:

<https://www.nba.com/stats/leaders?StatCategory=PTS>