

COMP 3380 – Stage 4: Query Check-In

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1. Get game appearance percentage for each player for each season (i.e. number of games played/number of games team played. This allows players who didn't make the playoffs to still be ranked highly even though they played less total games than playoff teams) and rank them.
 - This can show analysts who the most reliable players are in terms of being available for their team.
2. Find the top 10 largest differences in points per game scoring from one season to the next for players (this can be positive or negative).
 - This can give insight to see which players have developed a lot offensively or got worse.
3. Compute the average margin of victory for each team per opponent during a season.
 - Head-to-head metrics give some insight to which teams have close games, whether there are mismatches, etc.
4. Rank players based on the longest streak of games over a certain threshold for the major statistical categories. For example, the longest streak of consecutive games scoring 25+ points.
 - This can help analysts identify who developed a hot hand in certain areas throughout a season.
5. League leaders in major stat categories based on totals for players in a particular season:
 - This query can be edited to yield several different interesting queries. Users can simply get season totals for all players for a particular season, or specific players, or specific player totals against certain teams. This query can also be expanded beyond just one season. This is a fundamental query for NBA analysts because it is used to assess player output by adding everything up over the course of a season.
6. League leaders in major stat categories based on averages for players in a particular season:
 - This is a fundamental query that casual and expert fans will appreciate. Using this query, users will be able to see which players lead the league in major stat categories for a particular season. This is of interest to analysts as it is crucial in individual player awards at the end of the season. This query can also be expanded beyond just one season.

7. Major stat averages for a player when he played for a certain team:

- This query would allow users compare how well a player played on several different teams throughout their career. For example, Lebron's averages on the Cavaliers versus the Lakers. We can also edit this query to compare based on seasons to see what year a player was peak for a particular team. This is of interest to analysts and casual fans because it can be used to assess the players' surroundings and how they might have an impact on the player's individual performance.

8. Compare a players' regular season career averages against their playoff career averages:

- This is a particularly simple yet interesting query which is often brought up when fans debate if a player is a playoff riser or not. Jimmy Butler for example, his regular season career averages are lower than his playoff career averages. This means he is a playoff riser. This argument is often used in the GOAT (Greatest of All Time) debate as well.

9. Highest recorded single game total for all major stat categories by players in a particular season:

- This query can be used to see which players had the highest number of points, rebounds, assists etc. in a single game in a season. This is of interest to analysts because this query would be used to check if single game total records have been broken. This query can be applied to the NBA as a whole or to check team records.

10. Major stat averages of players when they play against certain players (Head-to-Head):

- This query can be used to see how well players perform against each other. The results of this query can be compared against the results of query #6 to see if either of these players played below their averages. This is of interest to analysts because it can be used in the formulation of gameplans to match up better against a particular player.

11. List the top teams in terms of highest average point differential:

- This query can be used to see the consistency of teams both offensively and defensively. This allows us to identify the most dominant teams by using stats other than just wins.

12. Find the player with the highest player efficiency rating (PER) on a given team through out a season

- Positive – negative statistics to calculate the (PER)

- This can be useful to understanding how efficient a player can be while on the court. Spanning this out over the course of a season for a given team, we can see how a players rating can average out. To give us an accurate picture on which player is the most efficient for a given team.

13. Give a specific draft round of players, measure their performance through multiple seasons and teams.

- This query is fixed on a group of draft round players and measures their performance as they grow from their rookie season to later in their career.
- This query search would be valuable to analysts because this can help to evaluate if a later draft round pick could outperform the earlier draft round picks

14. Highest conference team win percentage

- Compute the average win percentage for all teams for each conference throughout all season data and sort by who has the highest win percentage.
- This query search can be useful to an analyst because this can compare how well teams perform based on their competition strength, can also predict playoff seed standing by these metrics.

15. Highest player-coach statistic.

- This query search can find the best player a coach has ever coached.
 - i. Compare this query search to how a player has performed overall from all coaches without a specific coach to this specific coach and see how the difference is with this coach and how that coach operates.
- Sum the total statistical output of a player while being coached by a specific coach.
- Rank players by their statistical output to find best player a specific coach has coached.
- Analyst can use to understand which coach can help to boost a players performance and narrow down what the coach is doing to create difference. This can show how well a coach can be.

16. Team with the strongest bench lineup

- Sum up all teams non-starter statistics and rank by highest metric
- Looking for the team with the highest bench scoring percentage or could change the search to any other metric that could provide useful.

- This query search can be useful to an analyst to understand how well a teams non-starter lineup when it comes to contributing onto a teams overall win percentage, comparision of how much percentage does the non-starter contribute to the overall points of a team, and so on.