

## Question 1: How is the distribution of shot attempts of a team?

### Answer:

In the "*Shots Distribution*" section, a **heatmap** visualizes the spatial distribution of shots. The intensity of the green color represents the shot frequency in various areas of the court.

- **Why Heatmap:** It provides a clear and aggregated view of shot attempts across court zones.
  - Filters like *team*, *quarter*, and *shot outcome* allow users to customize the analysis and observe patterns specific to certain conditions.
  - The **scatter plot** (toggle option) overlays individual shot locations for precise insights, with tooltips showing player names, distances, and shot results.
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## Question 2: How do two different teams compare in terms of successful or failed shots?

### Answer:

By selecting two different teams in the *Team Filter*, the **heatmap** and **scatter plot** (Graphic 1) dynamically update to reflect the chosen team's shot distribution.

- To compare shots, users can alternate between the teams and observe differences in shooting areas and density.
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## Question 3: Is the distribution of shot attempts of a team different when playing home than when playing away?

### Answer:

Use the *Game Location Filter* in the sidebar to toggle between *Home Games* and *Away Games*.

- The **heatmap** and **scatter plot** update based on the selected location.
  - By comparing both visualizations, users can identify differences in shooting patterns, such as more perimeter shots in away games or a higher frequency near the basket at home.
  - Also the graphic about shots over time can help see how the distribution changes (specifically the amount and success rate) when applying the sidebar filter.
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## Question 4: How do the shots statistics (successful vs failed) compare per quarter?

**Answer:**

In the *"Shot Evolution during Time"* section (Graphic 2), a combination of **bar charts** and **line charts** visualizes shots over time.

- **Bar Chart:** Displays the **total number of shots** taken across time bins.
  - **Line Chart:** Shows the **shooting success rate (%)** over time.
  - Users can switch between *By Quarter* and *Full Match* granularity to observe trends within quarters or the entire game. This helps in identifying patterns like declining shot success rates under time pressure.
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**Question 5: How do the scores of two teams compare for a certain game?**

**Answer:**

In the *"Point Difference"* visualization, the **area chart** shows the evolution of the cumulative point difference over time.

- The X-axis represents the game time (in seconds, reversed for time progression), and the Y-axis reflects the point difference.
  - The area's color differentiates which team is leading (light green vs. dark green).
  - Users can explore specific time intervals using the **slider** and observe turning points where the leading team changes.
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**Question 6: How do the scores of two teams compare with the average scores of all teams?**

**Answer:**

In the *"Accumulated Points"* visualization, a **line chart** compares the scores of two teams with the **league average**.

- **Team Scores:** Shown as solid green lines for both teams.
- **League Average:** Represented as a dashed gray line, smoothed for clarity.
- The visualization helps identify whether a game's scoring pattern aligns with or deviates from the league average.
- Users can filter specific games for detailed analysis.