Semana de la Ciencia e Innovación

Escuela Universitaria Real Madrid
UNIVERSIDAD EUROPEA

CULÉVISION

A GAME ANALYSIS TOOL FOR FC BARCELONA

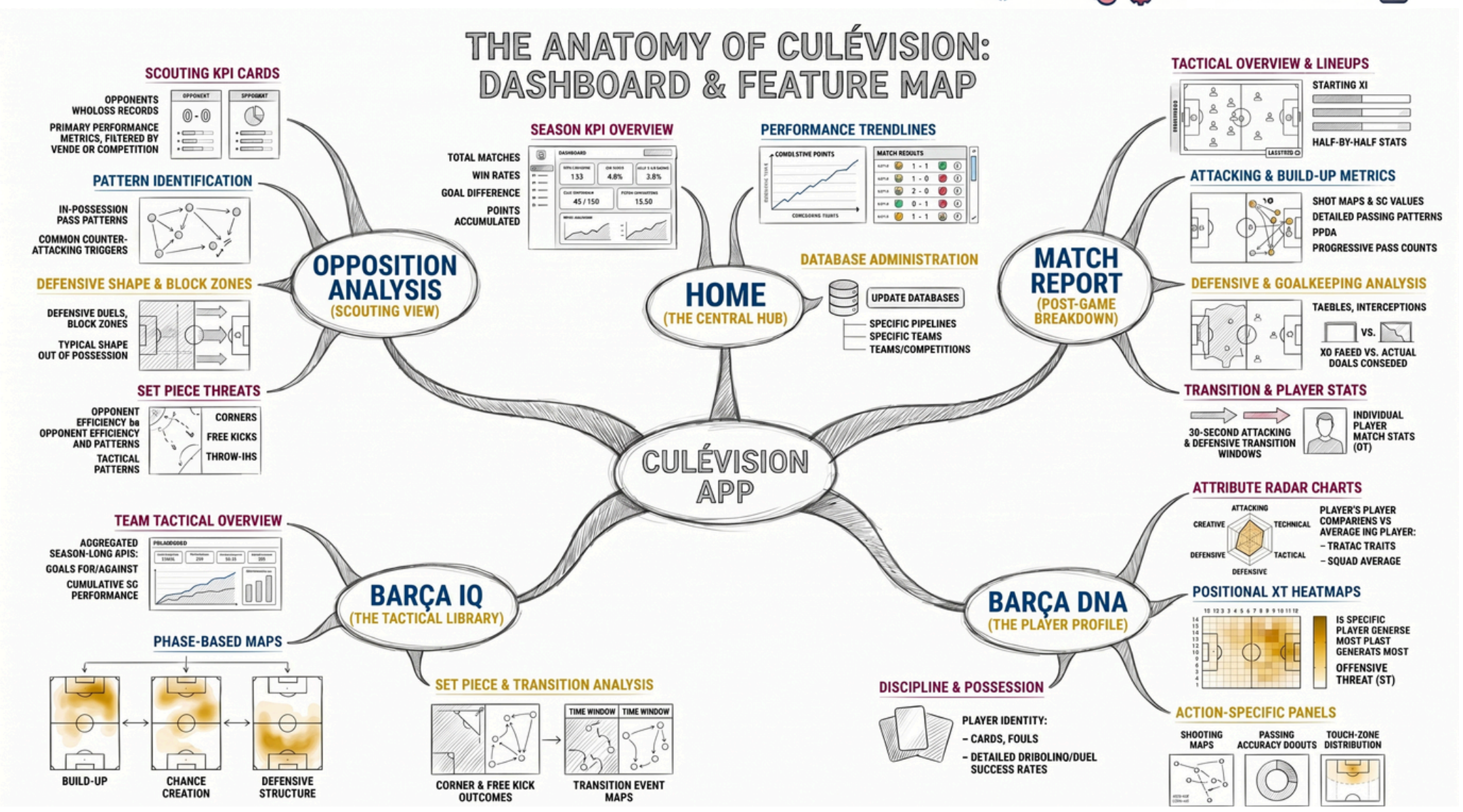
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Overview

CuléVision is a professional football-analytics dashboard built specifically for **FC Barcelona.** It turns raw Opta event data into automated post-match breakdowns, player and team profiles, and opponent analysis, aligned to Barça's positional-play game model.

Built With





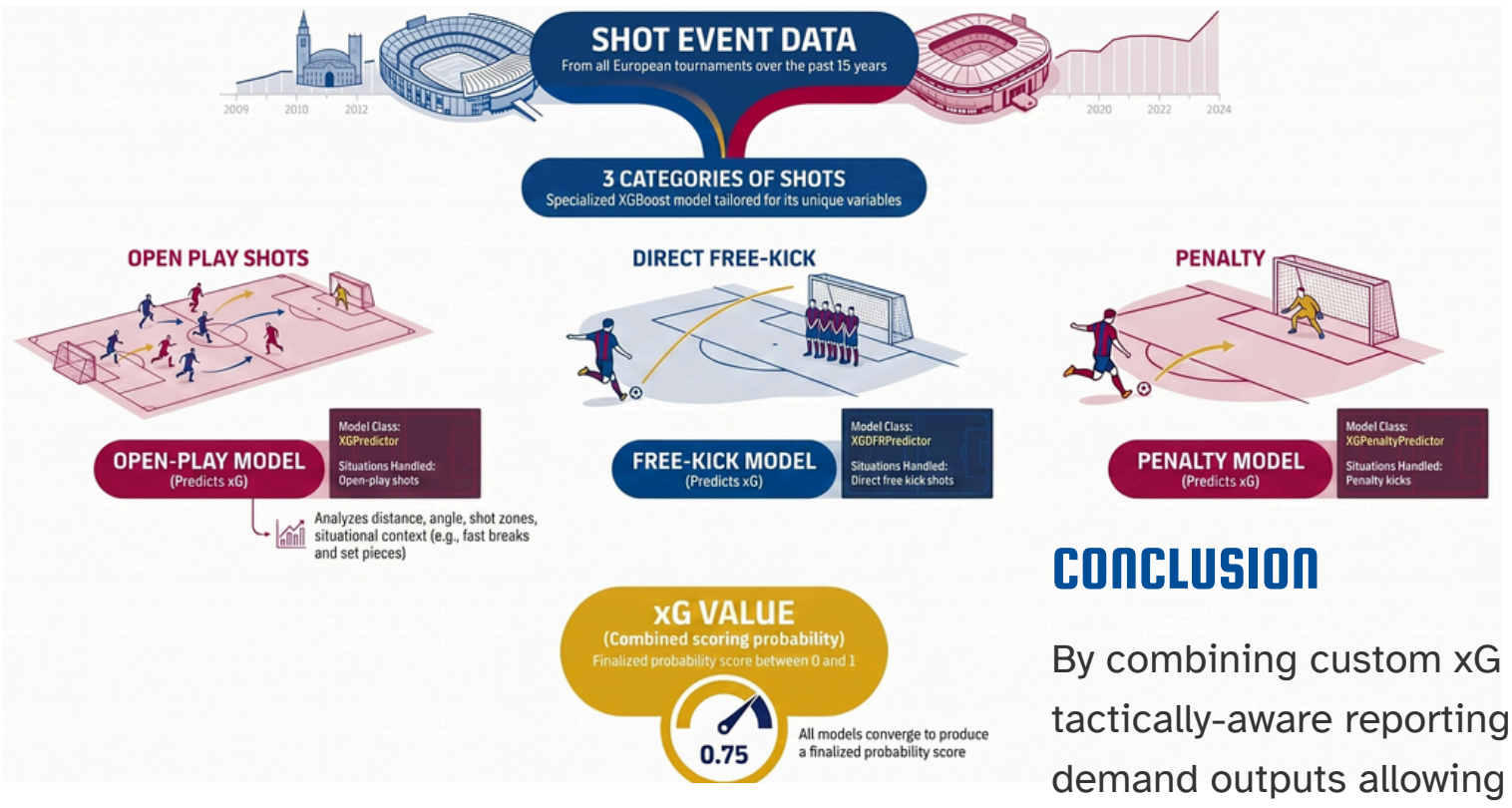
Event Data Schema

- Coordinates: 0–100 grid; both teams attack left-to-right.
- Zones: Pre-mapped tactical areas like Zone 14.
- Format: Boolean qualifiers use 'Si' or 'N/A'.
- Edge Cases: Own goals identified via team-code mismatch

Data Storage & Optimization

- Format: Snappy-compressed Parquet files via PyArrow.
- Efficiency: Deduplicated, shared match files.
- Speed: In-process data caching.

Expected Goals (xG)



Expected Threat (xT)

- Framework: 16×12 grid-based Bellman-equation approach.
- Calculation: Maps pass transitions and shot probabilities iteratively.
- Limitation: Excludes ball carries, under-crediting progressive dribblers

CONCLUSION

By combining custom xG models, grid-based xT, and tactically-aware reporting, it generates reproducible, on-demand outputs allowing staff to spend less time on data and more on interpretation.

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