

# PROJECT PROPOSAL

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Project Name: The LFC Analyzer

The purpose of this project is to examine Liverpool Football Club's various statistics across the various competitions they play in during the 2024 season. Additionally, we have a comparison between their 2022 and 2024 goal-scoring statistics. The scoring trends of each Liverpool player, the anticipated number of goals for Liverpool in each competition, and overall Liverpool trends can all be analyzed and comprehended with the help of these statistics. These analyses can be used by Liverpool's coaches and analysts to better improve the team through strategy development and team meetings before and after games.

The data for this project is being collected from three different data sources. The first source is API (API Sports) from which I have used API Football. The second source is web scraping for which I have scraped data from FBREF.com. The third source is a SQL Database and it has a record of the Liverpool player stats in terms of goals scored and assists.

The data fetched from the API was in JSON format, which was unstructured. In order to analyze the data I had to structure and clean the data in order to derive useful insights. Previously the data fetched through API was in JSON format. Web scraping data was embedded in HTML, text etc. The SQL data was in the form of tables on the web.

To illustrate the findings I am going to utilize distribution of goals, venue wise performance using different bar graphs, histograms, scatterplots and other diagrams.