

Name

Aziza Jamjoom

Project Name

Player Load & Injury Risk Analysis for Elite Football

Link to GitHub Repository

<https://github.com/azizajamjoom/sql-project>

Job Description

Position: Performance Data Analyst

Organization: Manchester City / City Football Group (CFG)

Impact (from job posting):

- Revolutionize player development, health, and rehabilitation using performance data
- Drive data quality and insights through collaboration with analysts and coaches
- Visualize complex insights and translate them into actionable strategies
- Analyze large, multi-source datasets to identify trends

Why Did You Select This Job?

This position is the perfect intersection of my passions: elite football and data science. It offers a chance to directly improve athletic performance and player well-being using analytical tools.

Relevance to Career Goals

My long-term goal is to be a performance analyst in elite sports. Manchester City's focus on athlete health and data-driven decision-making aligns perfectly with my ambition to use SQL and analytics to add real-world value to sports organizations.

Explanation of Interest

Manchester City is a world leader in data-driven performance innovation. Working on player development and injury prevention at this level would allow me to contribute meaningfully while sharpening my analytical skills in a high-performance environment.

Problem

Problem to Solve:

How can Manchester City identify early signs of player fatigue or injury risk based on match workloads and recovery windows?

Relevance to Job:

The problem reflects the analyst's role in improving player health and performance using high-quality data and visual insights.

Feasibility with Tools:

The solution will use SQL to clean and analyze data from an API and a web-scraped dataset. A visualization tool like Power BI or Tableau will present results to decision-makers.

Data Sources

1. API Source:

- **Source:** [Football-Data.org API](#)
- **Data:** Match statistics, player minutes, team schedules
- **Collection Method:** REST API with authentication key
- **Relevance:** Allows tracking of player workloads (minutes played, matches per week), a critical factor in assessing injury risk and performance decay.

2. Web Scraped Source:

- **Source:** [Transfermarkt - Manchester City Squad](#)
- **Data:** Player injury history, transfer values, recovery periods
- **Collection Method:** Python (BeautifulSoup for HTML parsing)

- **Relevance:** Adds valuable context to injury trends, financial value, and downtime, giving a full picture of each player's fitness cycle.

Solution

Approach:

- Use Python to pull data from the Football-Data.org API and scrape injury records from Transfermarkt.
- Store data in a SQL database (MySQL or SQLite).
- Run SQL queries to:
 - Track total minutes played per week
 - Identify short recovery intervals between matches
 - Cross-reference match load with injury records
- Use Tableau or Power BI to visualize:
 - Player workload trends
 - Injury frequency vs. minutes played
 - Heatmaps of fatigue risk per player

Goal: To help the coaching and medical staff spot high-risk periods and adjust training or rotation strategies accordingly — just like a real performance analyst would at CFG.