SQL Project Report – Sports Tournament Tracker

1. Introduction

This project is all about building a database system that can track sports tournaments—basically storing match results, team details, and player stats in a clean and organized way. I used **MySQL Workbench** to design the schema and write queries that help analyze performance across matches. The goal was to create something practical that could be used by sports organizers or developers working on backend systems for sports apps. It also gave me a chance to apply advanced SQL techniques like joins, views, and CTEs in a real-world context.

2. Abstract

The Sports Tournament Tracker is a relational database project that helps manage and analyze tournament data. It includes tables for teams, players, matches, and stats, all linked together with proper foreign keys. I inserted sample data to simulate actual match scenarios and then wrote queries to pull insights—like who scored the most goals, which team won the most matches, and how players performed on average. This project helped me strengthen my SQL skills and understand how to structure data for reporting and analysis.

3. Tools Used

* **MySQL Workbench** – for designing the schema, writing queries, and testing results
* **SQL** – used throughout for creating tables, inserting data, and writing logic
* **CSV Export** – to generate reports from query results (optional but useful)

4. Steps Involved in Building the Project

Step 1: Designing the Schema

I started by creating four main tables:

* teams – stores team name, coach, and city
* players – links each player to a team and defines their position
* matches – records match date, teams involved, and scores
* stats – tracks goals, assists, and minutes played by each player in each match

Step 2: Adding Sample Data

I added 5 teams and 10 players, then created 5 matches with realistic scores. For each match, I inserted player stats to reflect their performance.

Step 3: Writing Queries

I wrote queries to:

* Show match summaries
* List top goal scorers
* Calculate team points based on wins/draws
* Use CTEs to find average player performance

Step 4: Creating Views

To make things reusable, I created views for:

* Top scorers
* Team points table
* Team performance reports

Step 5: Reporting

Using MySQL Workbench, I exported query results to CSV so they could be used in dashboards or shared externally.

5. Conclusion

This project gave me hands-on experience with designing a relational database and writing meaningful SQL queries. It’s flexible enough to be extended with more features like tournament stages, penalties, or player transfers. Overall, it helped me understand how to structure data for analysis and build something that feels close to a real-world application. I plan to include this in my portfolio to showcase my backend and data-handling skills.