Cricket Tournament Management System

# Project Title

Cricket Tournament Management System

# Project Description

This project is a web-based application built to manage cricket tournaments, including information about teams, players, matches, venues, and umpires. It allows users to view, insert, and manage tournament-related data in an intuitive interface.

The project is built using:

- Frontend: HTML, CSS, Bootstrap, JavaScript

- Backend: Flask (Python)

- Database: Microsoft SQL Server (via pyodbc)

# Core Functionalities

Tournaments - View all tournaments and their details  
Teams - View teams, add new teams, filter by tournament  
Players - View all players, filter by role/nationality  
Matches - View match list with tournament/team details  
Venues - View all venues and their capacities, location, etc.  
Umpires - View list of umpires and their officiated matches

# Entities & Relationships

Tournament - Basic info like format, location, duration  
Team - Team name, captain, coach, assigned tournament  
Player - Player profile, team, role, batting/bowling info  
Match - Date, venue, teams involved, result  
Performance - Player’s individual match stats  
Venue - Stadium details  
Umpire - Match official info, experience  
Match\_Umpire - Mapping of matches to umpires with their role

# Tools & Technologies Used

- SQL Server Management Studio (SSMS) – for database creation and management.  
- Flask – lightweight backend framework.  
- HTML/CSS/Bootstrap – for frontend layout and styling.  
- Jinja2 Templates – for rendering dynamic data in pages.  
- pyodbc – to connect Flask with SQL Server.

# Key Features Implemented

- CRUD operations for key entities (view + add)  
- Filtering players by role/nationality  
- Relational data joins (e.g., player → team, match → venue/tournament)  
- Clean UI with Bootstrap styling  
- Logical routing in Flask  
- Reusable base layout (base.html) with navbar

# Use Case (If Real World)

While this is a class project, in a real-world setting this could be used by:  
- Local cricket organizers  
- Sports federations  
- Tournament committees  
- College/school leagues  
  
It would allow them to:  
- Organize fixtures  
- Manage team/player data  
- Track results and statistics

# Future Improvements (Optional Ideas)

- Add login system (admin/manager access)  
- Add match scheduling and live scoring  
- Add player profile pages with aggregated stats  
- Export reports as PDF  
- Add charts for performance data

# Project Completed ✅

You now have a full-stack, working Cricket Tournament Management System — ready to present.