Database Milestone 1

Group Name: DROP TABLE GroupProjects;)

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**Intro:**

Our project is a database for tracking the statistics and games of the FIFA world cup. This will include players and player statistics, game outcomes with scores, teams and their rosters, a schedule, tournaments and their outcomes.

**Data Requirements: (ER)**

The project will have the following requirements:

* Each Team with have a nation, a name, a group they will be playing in, and be uniquely identified by a teamID. They will have a minimum of one coach, have a minimum of 11 players, and may play no matches or several matches.
* Each coach will have a salary, years of experience, a First and Last name, and be uniquely identified by a CoachID. A coach will belong to only one team.
* A player will have a First and a Last name, a rank, a jersey number, a salary, a list of playable positions, a medical status, and will be uniquely identified by a PlayerID. A player does not need to play for a team or may have played for several teams. For every team they have played for they will have a start date and an end date.
* Every match will have a Start Time, a Finish Time, a Stadium that it will be played at, and be uniquely identified by a MatchID. Every Match will be played by exactly 2 teams, one of which will win (extrapolated from the score). Every match will be a part of exactly one tournament.
* Every tournament will be held in a specific nation, in a specific year, and have a tournament name. Each tournament has anywhere from 0 to 64 matches in it.

Diagram

Description automatically generated

Functional and Non-Functional Requirements:

* We need to add and remove players, teams, tournaments, and games.
* We need to update the statistics of players and edit rosters.
* We need to be able to update a tournament with the next rounds of games played and the final victory decision, and we need to be able to extrapolate the tournament tree from any given tournament.
* We must also be able to generate a calendar based upon the list of games.

**Ideas:**

We still need to research the exact structure of the FIFA tournament to make any changes a needed. We have not considered how we will build and integrate a database into a webpage since none of us know HTML.

**Architecture:**

We will be using a three-tier architecture.

* The presentation Layer: This will be what users will see. Most likely this will be implemented as a web page.
* The Application Layer: This will be implemented using the web server that we choose.
* The Data Layer: We will be using mySQL as our DBMS.

**Team Member Roles:**

Our team roles are as follows:

Vien: Subject Matter Expert

Bryan: Documents and Presentation Compiler

Irvin: Meeting Coordinator

Connor: Scheduler

Tristan: Teacher Student Liaison

As tasks are discovered and created in the meeting process, they will be dolled out based upon availability and experience.