Team Sort And Destroy's Video Game Database

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APPLICATION SCENARIO AND PROBLEM STATEMENT

An ever occurring issue in games is not being able to see and compare other users' stats. With this application, individual users' levels of skill will be determined by comparisons between their stats.

A database is needed for this issue since every user has important statistical information associated with them that displays the kind of player they are.

By having this database of information accessible, it will be simple to view this information!
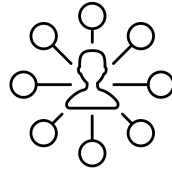
Functional requirements - Player

Players can:

- Log into the system to access their stats. Players can insert an account username and account password in order to obtain access.
- Players can update the database by registering for an account, or deleting their account.
- Update the database by deciding to join or leave a team. The player can read stats from the team, which would include total team kills from all players on the team.
- Be part of a friend system. The player can update the database by sending a request to a designated friend. The friend can either accept or decline the request.
- Search the database to view their stats. From the database searching, the player can also compare their stats with other players' stats on the system.
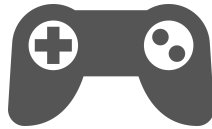
Functional requirements - Guest

Guests can:

- Have access to the system to view the stats of other players.
- View Games, Game modes, and Game Types.

Functional requirements - Admin

Admins can:

- Represent an automated system that updates player data after each match.
- Simulate the outcome of a match.
- Update player statistics (Stat and GameStat tables) to reflect the outcome of a match.
- Add player statistics for new players of a specific gametype.
- Read, write, and update gamemode/game data.
- Read, write, and update player accounts. They can remove a player and the player's stats from the database.
- Read, write, and update teams. They can remove a team and its stats.
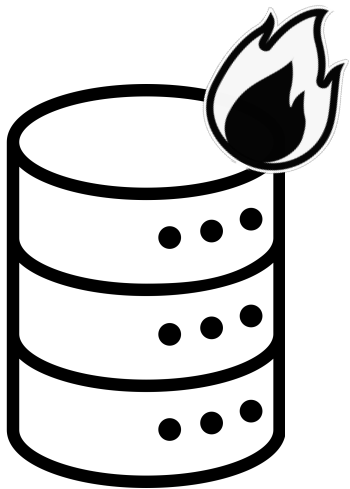- Add/remove custom statistics to match the games tracked.

ER-DIAGRAM

- For a player to exist, an account must first exist.
- A player can have friends, a team, stats, and certain gamestats.
- Stats and gamestats have their own types.
- Gamestats connect with certain games.
- Stats connect with certain game types.
- Every game can have a gametype.
- Game types have game modes.
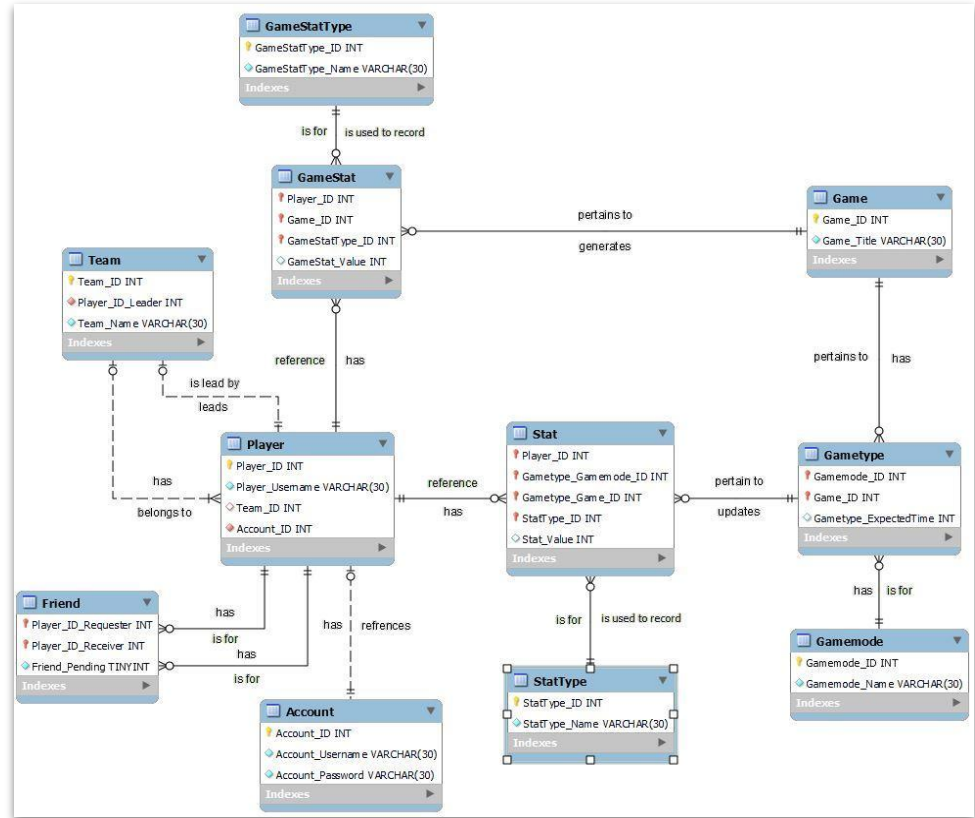
TOOLS, FRAMEWORKS, AND TECHNOLOGIES USED

- C#
- SQL
- Visual Studio
  - Used Visual Studio's *Windows Forms* for the user interface
- MySQL.data implementation through Visual Studio
- GitHub for code repository

DEMO TIME!