**Program Flow**

|  |  |  |
| --- | --- | --- |
| **ADMIN CLIENT**  *Login*  *Get Teams*  *Team DB CRUD actions*  *Score DB CRUD actions*  *Get/Set Divisions*  *Get/Set Standings*  *Get/Set Bracket* | Laptop | **SERVER**  Server  *SQL Queries* |
| **USER CLIENT**  *Register*  *Login*  *Post Score*  *Get Standings* | Smart Phone | **DATABASE**  Database |

**DB Tables**

*Users*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | First Name | Last Name | Email | Password | Is Admin |
| int | char(MAX) | char(MAX) | char(MAX) | char(MAX) | bool |

*Teams*

|  |  |  |  |
| --- | --- | --- | --- |
| ID | Name | Members | Division |
| int | char(MAX) | char(MAX)[] | char(MAX) |

*Standings*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Team | Game 1 Result | Game 2 Result | Game 3 Result | Total Score |
| int | Team | Result | Result | Result | int |

*Bracket*

|  |  |
| --- | --- |
| Seed [Key] | Team Name |
| Int | char(MAX) |

**Data Models**

*User*

private ID (int)

FirstName (string)

LastName (string)

Email (string)

Password (string)

isAdmin (bool)

*Team*

private ID (int)

Name (string)

Members (string[])

Division (string)

*Division*

Members (Team[])

Name (string)

*Result*

Score (int)

WinLoss (char)

*Standing*

private ID (int)

Team (Team)

GameOneResult (Result)

GameTwoResult (Result)

GameThreeResult (Result)

TotalScore (int)

*ApplicationContext*

Users (DbSet)

Teams (DbSet)

Standings (DbSet)

Bracket (DbSet)

**Controllers & Actions**

*Home*

Index

*Registration*

RegisterUser

RegisterTeam

*User*

Create

Edit

Delete

*Team*

Create

Edit

Delete

*Standing*

Edit

Delete

*TournamentSetup*

CreateTourny

EditDivisions

CreateSchedule

CreateBracket

EditBracket

Print

*TournamentPlay*

PostScore

GetStandings

GetBracket

*Error*

401

403

404

500

Public

Admin Only

Db pass: v86Eq2s2ztGJNajw