Project Title

Baton Twirling Competition Entry Form Database

Team Name

Apple Jacks

Authors: Amy Mummert and Joel Vrieze – Group 4

Overview

This proposal outlines the Baton Twirling Competition Entry Form Database created by Amy Mummert and Joel Vrieze. The Baton Twirling Competition Entry Form Database (BTCE) creates an entry form for baton twirling competitions for approximately 52 competitions per year and hundreds of events. A competition includes events that baton twirling athletes can register for and compete in. Athletes who enter in a competition can register to enter one or more events within that competition. Events include, but are not limited to, basic march, military march, parade march, presentation, 2-baton, 3-baton, solo, strut and artistic twirl. The database includes six entity tables, one category table and six relationships between tables. The tables are Competitions, Events, Teams, Athletes, and Divisions. The category table is named EventLevels. The database has one transition table between Events and Athletes, named Athletes_Events. This proposal includes an overview, a database outline, and an ERD diagram.

A database driven website for baton twirling competitions will record event entries by athletes at competitions. The database can hold thousands of records which can easily be accessed by Competition staff. Approximately 400 athletes compete in a single competition at one time, but this number is not set in stone because there is no cutoff of entries per competition. Competitions last from one day to a few days at a time, possibly more. Competitions for baton twirling can be at many different locations but the location cannot have more than one competition at a time. If a location has ten competitions a year then approximately 10,000 athletes compete in those competitions. It is possible for a location to have less competitions per year and many competitions occurring per year at different locations. This statistic will become more accurate when taking an average after a few years.

Databases are essential to many businesses and large corporations. Databases store data in a collection that is easily accessible to a business. A relational database, stores data in tables and with those tables creates relationships. Relational databases (one type of back-end database), solve several problems that a website without a back-end database might have. By eliminating paper entry forms and creating the baton twirling entry form database, paper entries won't get lost or misplaced and event entries will be well organized. Competition staff can easily see which athletes signed up for which events and records will be retained in the database.

A relational database for baton twirling solves several issues. Data redundancy or duplication of data becomes non-existent within a relational database. In our case, duplicate entries for one event by an athlete won't be an issue with a relational database. Data accuracy, which is very important to businesses, remains consistent by updating all instances of a table and its associated data. With a database for baton twirling entries will be consistent and accurate and competition staff won't have to worry about reading someone's handwriting. Data recovery is also an issue that a relational database solves. Data for baton twirling can be backed up and recovered easily. Data integrity is solved by only allowing certain competition staff to access the database data. With this, a baton twirling database can maintain confidentiality and integrity and improve the availability of data. Querying becomes quicker and faster and uses SQL (Structured Query Language) to perform CRUD operations (Create, Read,

Update, Delete). This allows competition staff to focus more on set-up and organization, for example, than entering all entries by hand.

Database Outline

Competitions: Records competition details including name, date, location, and start time.

- competitionID: int, PK, NN, unique, auto_increment
- competitionName: VARCHAR(255), NN
- date: DATE
- startTime: TIME
- locationName: VARCHAR(255), NN
- locationAddress: VARCHAR(255), NN
- locationPhone: VARCHAR(15), NN
- Relationship: A 1:M relationship between Competitions and Events is implemented with competitionID as an FK inside events. For each competition there are one to many events.

Events: Records the event details for a given event type with division and eventlevel included. Events include, but are not limited to, basic march, military march, parade march, presentation, 2-baton, 3-baton, solo, strut and artistic twirl.

- eventID: int, PK, NN, unique, auto_increment
- competitionID: int, FK, NN
- divisionID: int, FK, NN
- eventlevelID: int, FK, NN
- eventName: VARCHAR(255), NN
- Relationship: A M:M relationship between Events and Athletes is implemented with a transition table, where there can be 1:M relationship between Athletes and Events where each athlete could have zero to many event entries and a 1:M between an Events and Athletes where each event could have zero to many athletes.

Athletes: Records details for each athlete in the database including athlete name, athlete address, athlete phone number and date of birth which will determine the athletes age on or before 8/31 of the current year.

- athleteID: int, PK, NN, unique, auto_increment
- teamID: int, FK, NULL
- divisionID, int, FK, NULL
- athleteName: VARCHAR(255), NN
- athleteAddress: VARCHAR(255) NN
- athletePhone: VARCHAR(15), NN
- athleteEmail: VARCHAR(255), NULL
- athleteDOB: date,NN
- athleteAge: int, NN (age athlete will be on or before 8/31 of current year based on athleteDOB)
- Relationship: A M:M defined in Events and a M:1 defined in Divisions.

Teams: Records the team details for each team in the database including team name and coach.

- teamID: int, PK, NN,unique, auto_increment
- teamName: VARCHAR(255), NN
- coachName: VARCHAR(255), NN
- coachPhone: VARCHAR(15), NN
- coachEmail: VARCHAR(255), NN
- Relationship: A 1:M relationship between Teams and Athletes is implemented with teamID as an FK inside Athletes. For each Team there has to be one or more athletes on the team. Each Athlete must be on a Team.

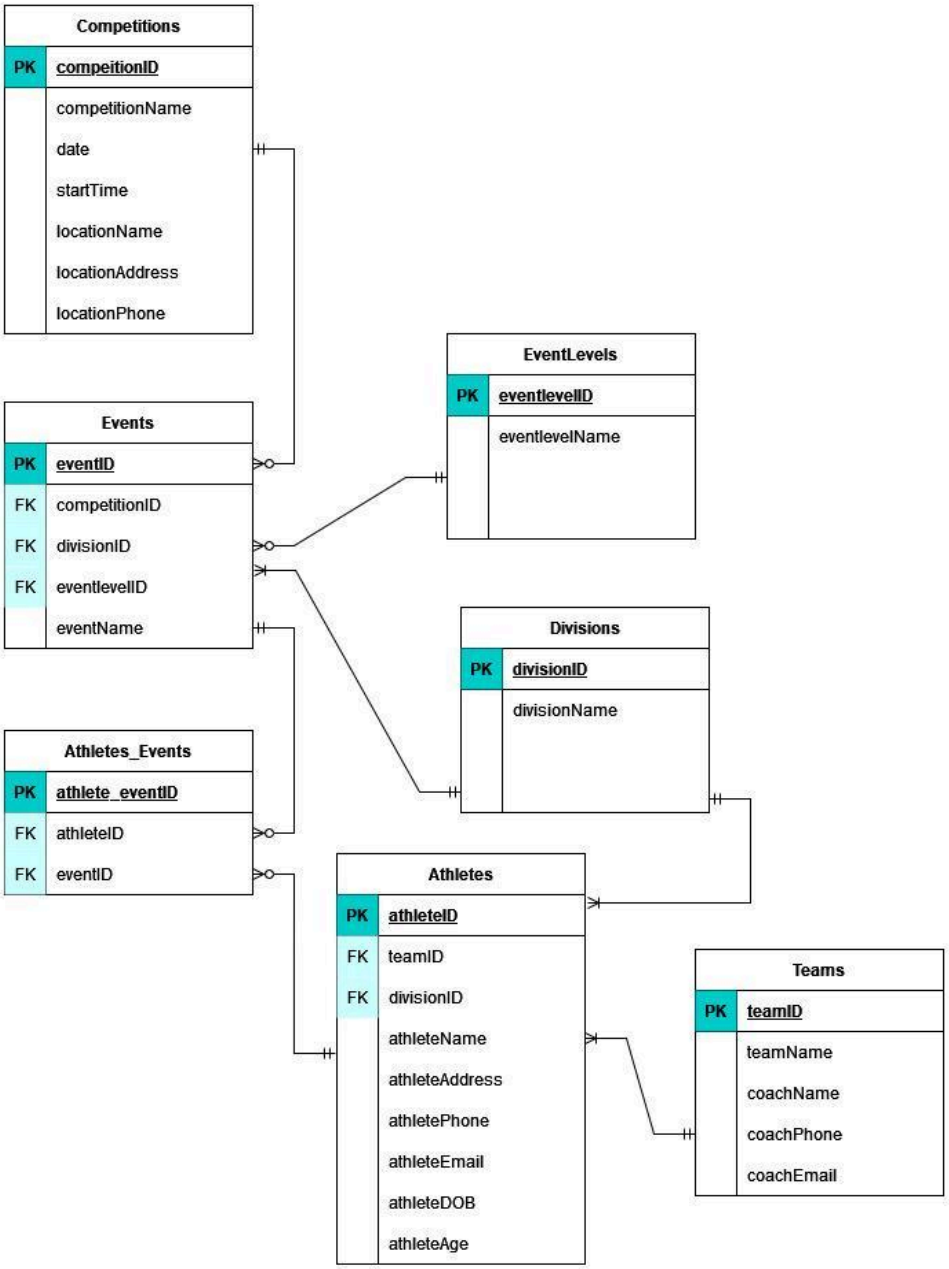
Divisions: Records details for the event and athletes division.

- divisonID: int, PK, NN, auto_increment
- divisonName: VARCHAR(255), NN
- Relationship: 1:M relationship between Divisions and Events which is implemented with divisionID as an FK inside Events. Each division can be assigned to zero to many events. 1:M relationship between Division and Athletes which is implemented with divisionID as an Fk inside Athletes. Each division can be assigned to zero to many Athletes.

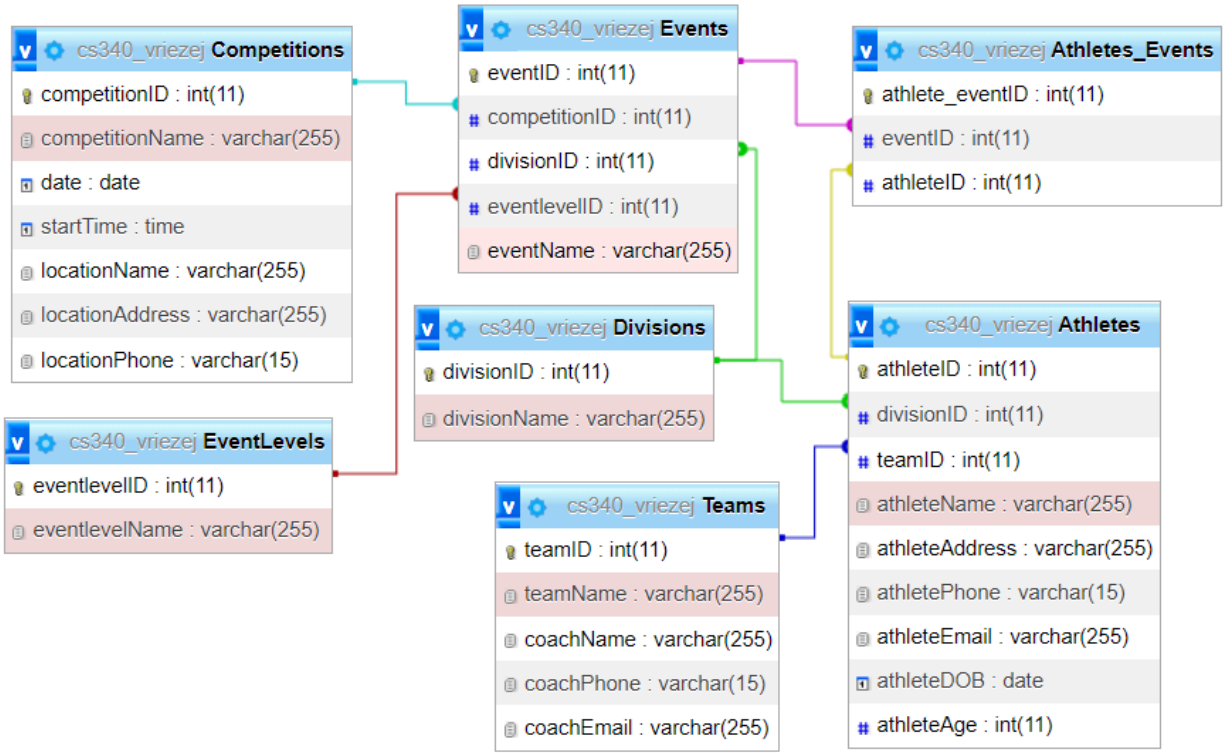
EventLevels: A Category table for event levels. It Records details for each event's level detail in baton twirling.

- eventlevelID: int, PK, NN, auto_increment
- eventlevelName: VARCHAR(255), NN
- Relationship: 1:M relationship between EventLevels and Events is implemented with eventlevelID as an FK inside Events. Each level can be assigned to zero to many events.

Entity Relationship Diagram (ERD)



Schema



Example Data

Competitions:

competitionID	competitionName	date	startTime	locationName	locationAddress	locationPhone
1	Kelly Kadet Baton Extravaganza	2023-03-04	09:00:00	Knova Gym	1000 SE 182nd Ave. Portland, OR 97233	503-555-1234
2	Oregon State Baton Championships	2023-04-29	08:30:00	Knova Gym	1000 SE 182nd Ave Portland, OR 97233	503-555-1234
3	2023 Western Regional Championships	2023-06-18	09:30:00	Heritage High School Gym	Heritage High School 101 American Ave, Brentwood, ...	925-456-1234

Athletes:

athleteID	divisionID	teamID	athleteName	athleteAddress	athletePhone	athleteEmail	athleteDOB	athleteAge
1	5	1	Oleg Kemp	876-3439 Mauris, St Spokane,Wa 30107	1-719-465-8475	torquent@aol.org	2002-06-12	21
2	3	2	Hoyt Moreno	345-617 Suspendisse Avenue Portland, OR 62481-0416...	1-537-906-7525	nam@yahoo.ca	2010-09-20	12
3	5	3	Fallon English	7493 Mauris Avenue Gresham, OR 65276	1-244-346-3338	libero.at@google.net	2005-08-01	18
4	4	3	Ethan Santana	356-2820 Cras Avenue Salem, OR 86585	(273) 741-8978	imperdiet.erat.nonummy@icloud.org	2008-10-30	14
5	2	2	Jonah Baker	P.O. Box 884, 4714 Tincidunt, Av. Sacremento, CA 9...	1-347-476-2792	pede@outlook.edu	2015-07-21	8

Teams:

teamID	teamName	coachName	coachPhone	coachEmail
1	Kelly's Kadets	Shanon Baker	503-555-5555	shanonbaker@batonfun.com
2	ST. Helens Baton Club	Donna McAtee	503-555-1565	donnamcatee@batonfun.com
3	Vrieze Twirling Academy	Kendra Vrieze	503-555-8923	kendravrieze@batonfun.com

EventLevels:

eventlevelID	eventlevelName
1	Novice
2	Beginner
3	Intermediate
4	Advance
5	Elite

Divisions:

divisionID	divisionName
1	Tiny Tot (0-6)
2	Primary (0-9)
3	Juvenile (10-13)
4	Junior (14-17)
5	Senior (18-21)
6	Adult (22+)

Events:

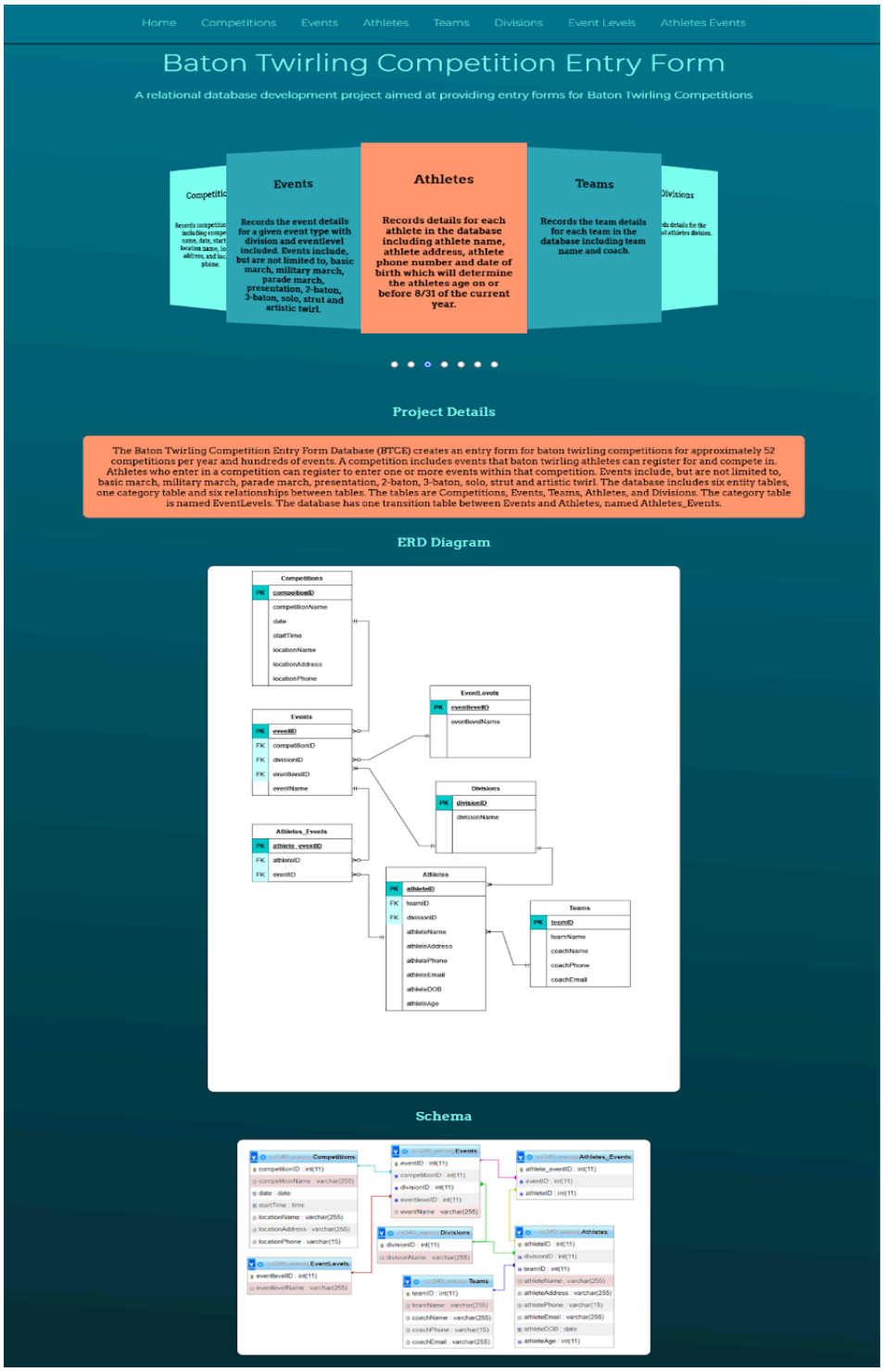
eventID	competitionID	divisionID	eventlevelID	eventName
1	1	2	1	Solo
2	1	5	2	Solo
3	1	5	4	Solo
4	1	3	1	Strut
5	1	5	2	Strut

Athletes_Events:

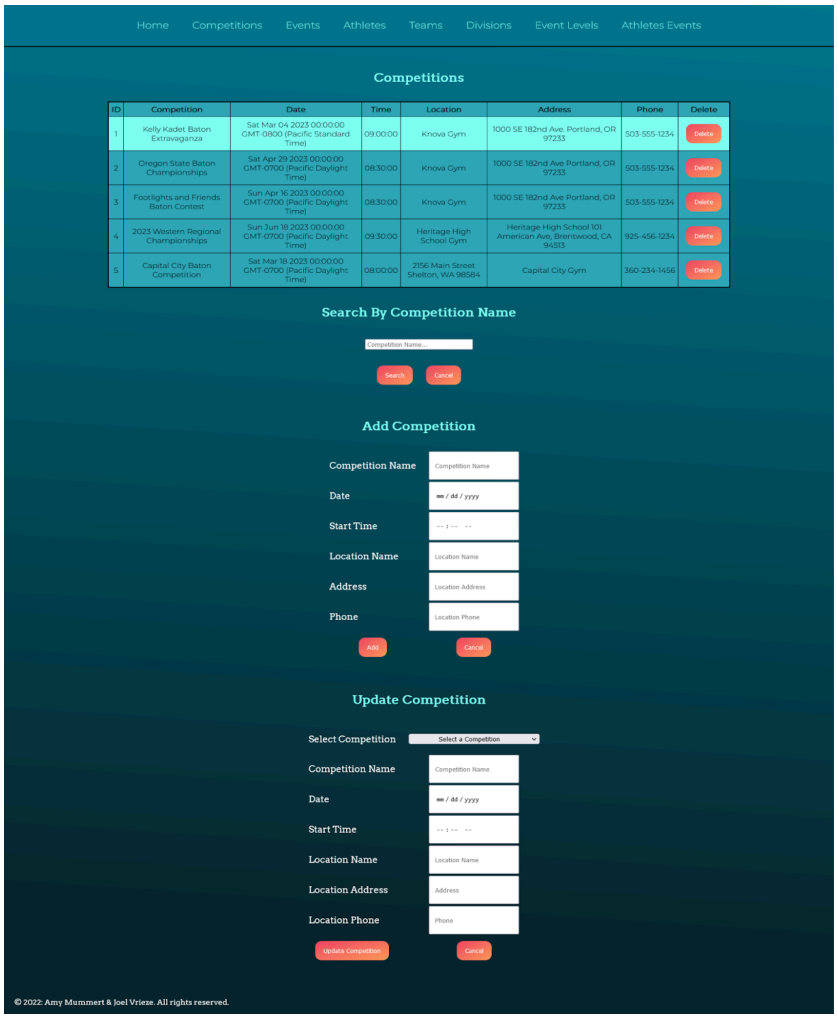
athlete_eventID	eventID	athleteID
1	5	1
2	4	2
3	3	3
4	2	1

UI Screen Captures

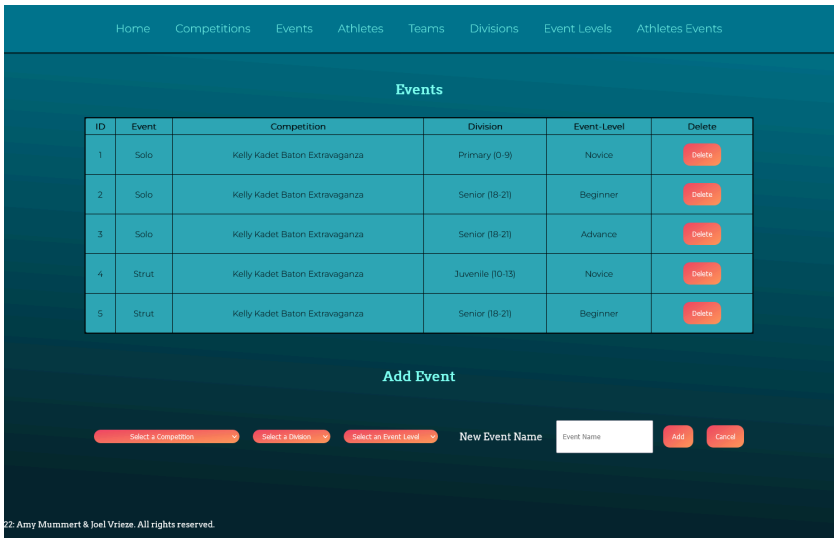
Homepage - Table Overviews, Project Details, ERD, Schema, and PDF doc



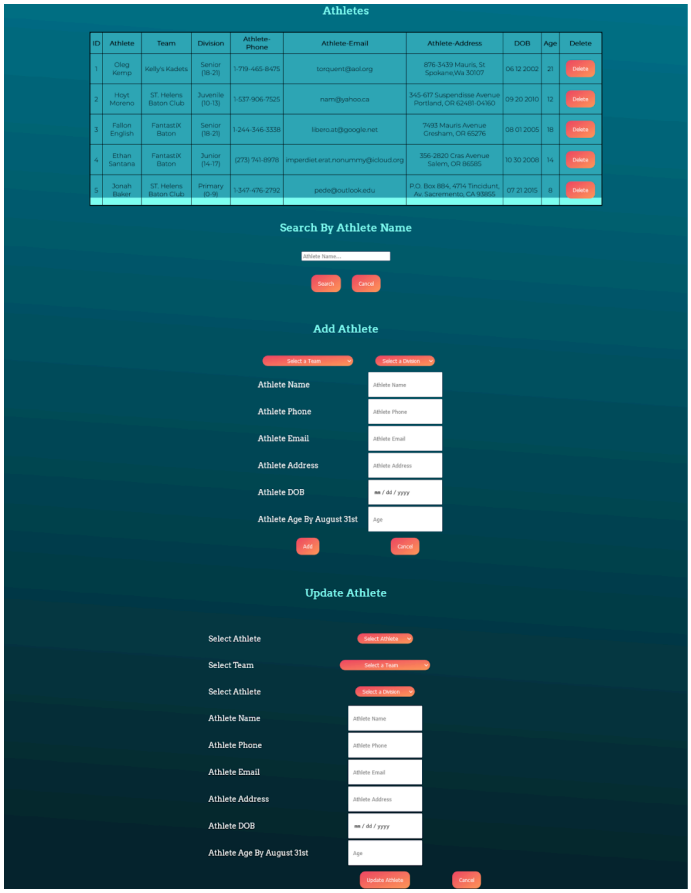
Competitions Page - CREATE/READ/UPDATE/SEARCH/DELETE



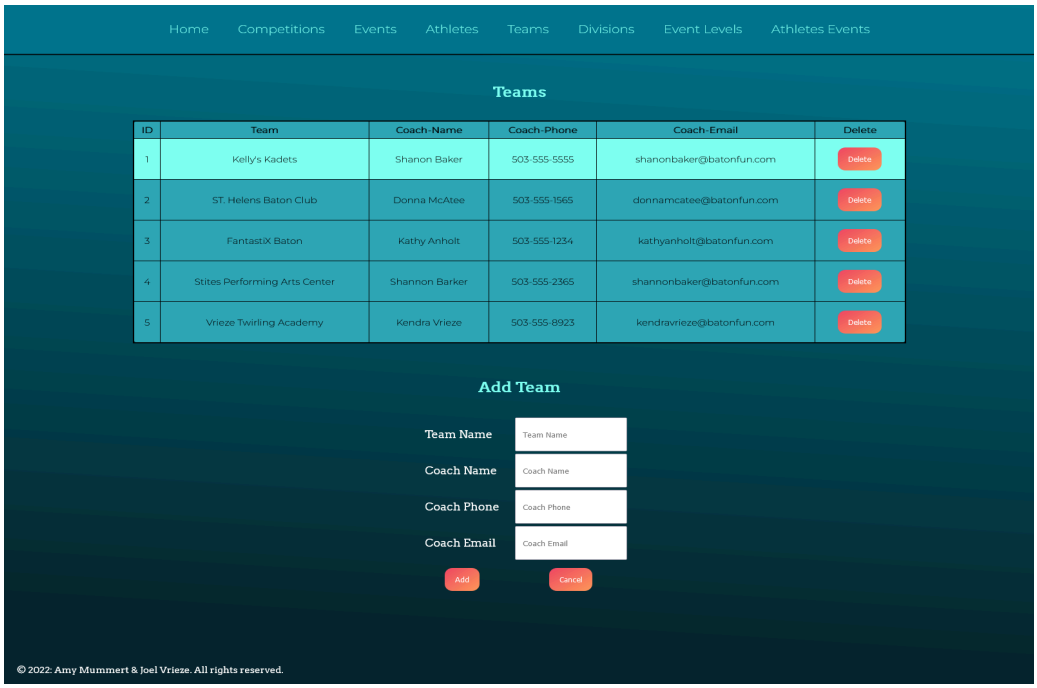
Events Page - READ/CREATE/DELETE



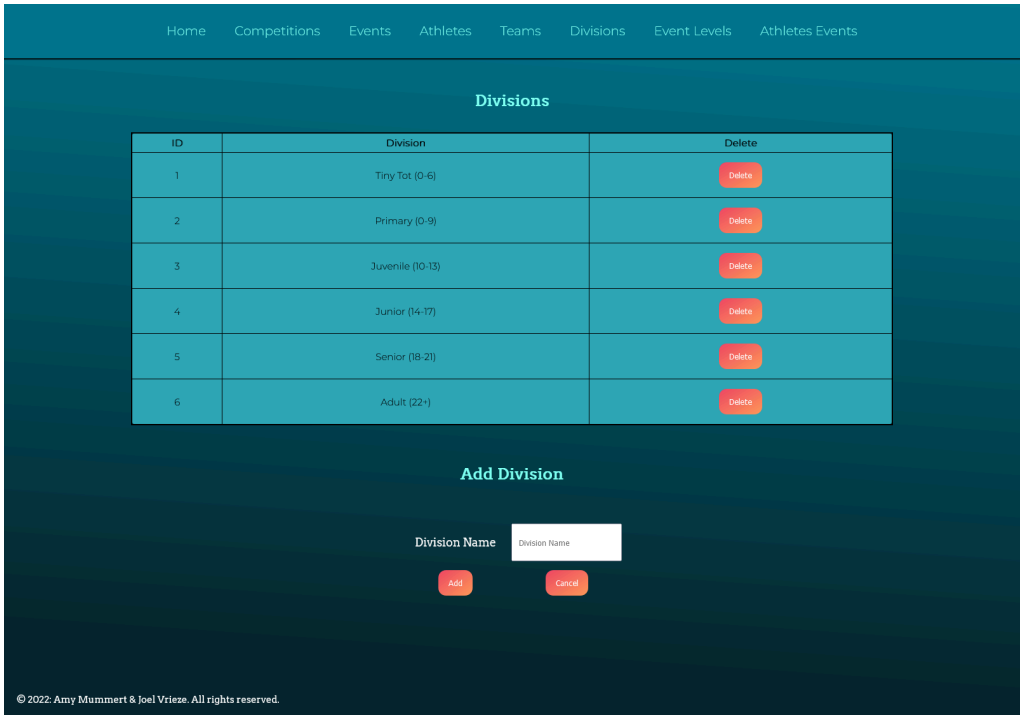
Athletes Page - CREATE/READ/UPDATE/SEARCH/DELETE



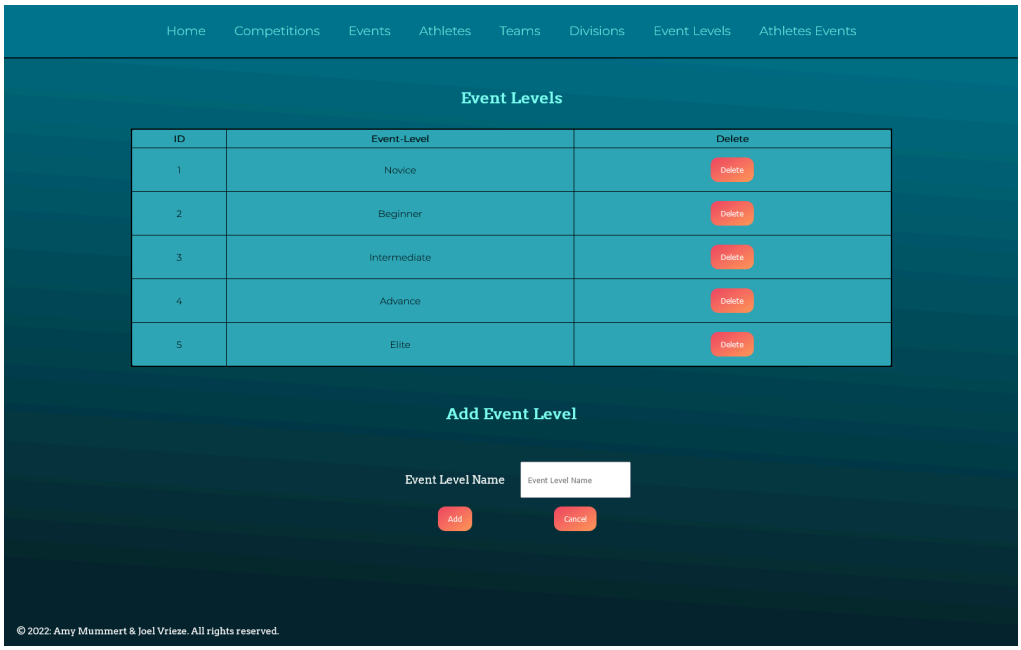
Teams Page - READ/CREATE/DELETE



Divisions Page - READ/CREATE/DELETE



EventLevels Page - READ/CREATE/DELETE



Athletes-Events Page - CREATE/READ/UPDATE/SEARCH/DELETE