

## PROJECT STEP 7

### URL

<http://flip3.engr.oregonstate.edu:7374/>

### FEEDBACK/CHANGE SUMMARY

#### Relationship Changes

In our outline and schema we changed the relationship between driver and vehicle. It used to be a many to many relationship but it is now a one to one relationship. We initially thought that drivers should be able to drive multiple vehicles for various races and that vehicles can be driver by multiple drivers over multiple races. We changed it for simplicity's sake.

#### Attribute Changes

In our outline and schema we removed the wins attribute from the team entity as it is redundant and would go against database normalization.

#### Pre-Populated Drop-Downs

On the client side we added pre-populated drop-down lists for our foreign keys to our insert functions to make it easier for the user to add data instead of typing in ID numbers. This vastly eliminates possible errors.

#### Nullable Relationship

We forgot to add a nullable relationship so we made the driver's team nullable in the edit page.

#### Search Feature

We added a search option to search for drivers by name.

#### Date Formatting

We formatted the dates to show MM/DD/YYYY to make it easier to read for the user.

#### UI Update

We updated the navbar to highlight the current page and have a dark background for better readability.

#### Usability Update

We changed the foreign keys to display names and instead of ID numbers for better readability.

## PROJECT OUTLINE

### AMATEUR RACE CIRCUIT

Our project is to build a database of records for an amateur circuit of race car drivers. On the front end, users will be able to enter information for each entity. The website will consist of a home page with an introduction to the site, where the user will be able to navigate and go to the race, driver, or contact page. The race page will allow the user to input information into the database concerning the actual race that took place (what drivers participated, the track it was on, and who won). The driver page will allow the driver to input information on the driver (add a driver, change vehicle information, add/change team). The contact page will allow the user to get in touch with the administrator of the database.

## ENTITIES INCLUDE:

### Track

The track is where the races are being held. It's primary key will be an auto-incrementing integer. The main attributes to a track are its name and location with the later being broken up into smaller pieces (street address, city, etc...)

### Race

The race is the actual event. It's primary key will be an auto-incrementing integer. The main attributes for the race are the date of the event, the track that it's being held at, the weather during the race, and the winner of the race.

### Driver

The drivers are the ones participating in the races. Every driver will have an auto-incrementing integer for its primary key. The driver's attributes are its name, date of birth, height, weight, team ID if it's part of a team, wins total, and the vehicle that it drives.

### Team

This entity is the team of drivers. This is a fairly simple entity with only a name as its attribute.

### Vehicle

This is the vehicle that is driven by the driver. The only information needed is it's make, model, and year.

## DATABASE OUTLINE

### TRACK ENTITY

**Track\_ID** (Primary Key) int

This will be the ID# for the track. The ID# will be automatically generated by the database once entered.

**Track\_Name** varchar

This is the name of the track. It will be a varchar data type with a limit of 30 characters.

**Address** varchar

This is the name of the street address that the track is located in. There will be a limit of 30 characters for this.

**State** varchar

This is the name of the state that the track is located in. There will be a limit of 30 characters.

**City** varchar

This is the name of the city that the track is located in. There will be a limit of 30 characters.

**Zip** varchar

This is the zipcode that the track is located in. There will be a limit of 5 characters.

**Length** int

This will be the length of the track.

### RACE ENTITY

**Race\_ID** (Primary Key) int

This is the ID number for each race. The ID number will be automatically generated.

**Track\_ID** (Foreign Key from Track entity) int

This is the track that the race will be held at.

**Date** date

This is the date of the actual race.

**Weather** varchar

This is the weather conditions during the race. The limit to the weather will be 30 characters.

**Winner\_ID** (Foreign Key from Driver entity) int

This is the winner of the race. It will be a driver ID number.

## DRIVER

**Driver\_ID** (Primary Key) int

This is the ID number for each driver. The ID number will be automatically generated.

**Name (First & Last)** varchar

This is the name of the driver. The limit to the name will be 30 characters.

**Date of Birth** date

This is the date of birth of the driver.

**Height** int

This is the height of the driver.

**Weight** int

This is the weight of the driver.

**Team\_ID** (Foreign Key from Team Entity) int

This is the team that the driver belongs if he belongs to a team.

**Wins** int

This is the number of wins the driver has on his record.

**Vehicle\_ID** (Foreign Key from Vehicle Entity) int

This is the number of wins the driver has on his record.

## VEHICLE

**Vehicle\_ID** (Primary Key) int

This is the ID number for each vehicle. The ID number will be automatically generated.

**Make** varchar

This is the make of the vehicle.

**Model** varchar

This is the model of the vehicle.

**Year** year

This is the year that the vehicle was made.

## TEAM

**Team\_ID** (Primary Key) int

This is the ID number for each team. The ID number will be automatically generated.

**Name** varchar

This is the name of the team.

## RELATIONSHIPS

**Track\_Race** One to Many

A track can host one or more races. A race event can only be held at one track.

**Race\_Driver** Many to Many

A race must have two or more drivers. A driver can participate in one or more races. There is a relationship table which contains Foreign keys from the Driver and Race Entities (see schema).

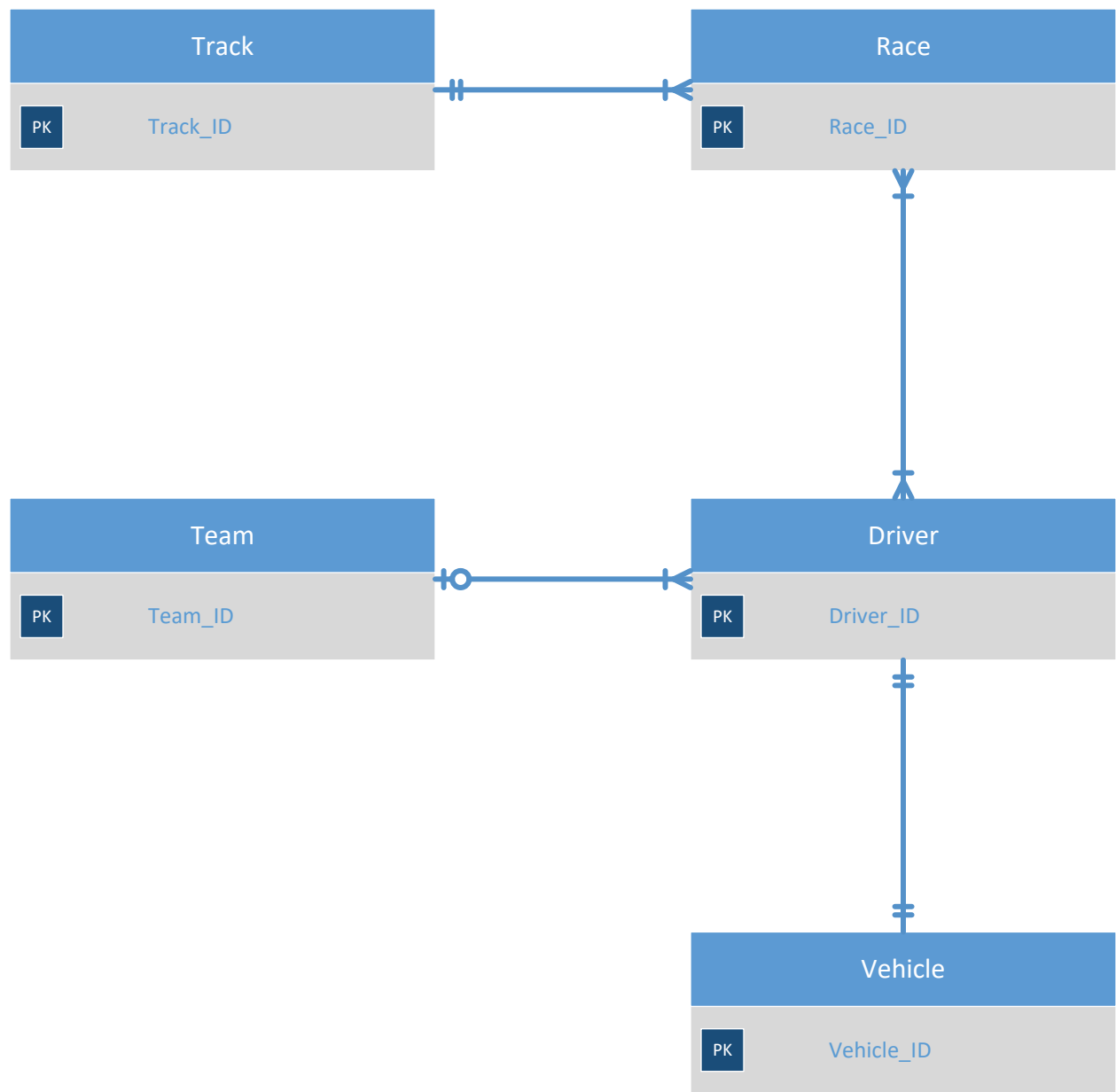
**Driver\_Team** One to Many

A driver can be in one team or none. A team must have at least one driver

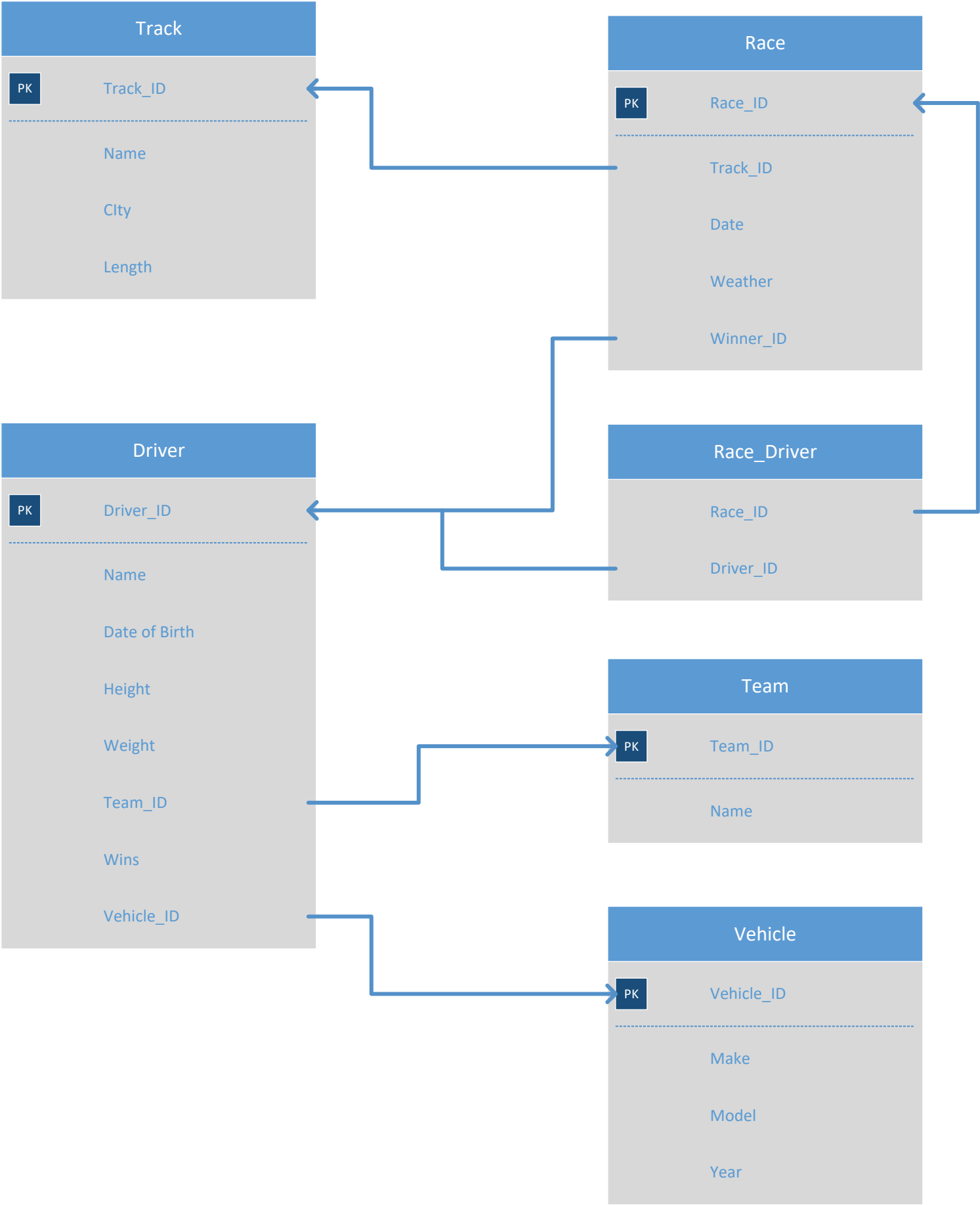
**Driver\_Vehicle** One to One

A driver can only have one vehicle. A vehicle must have only one driver.

ENTITY-RELATIONSHIP DIAGRAM

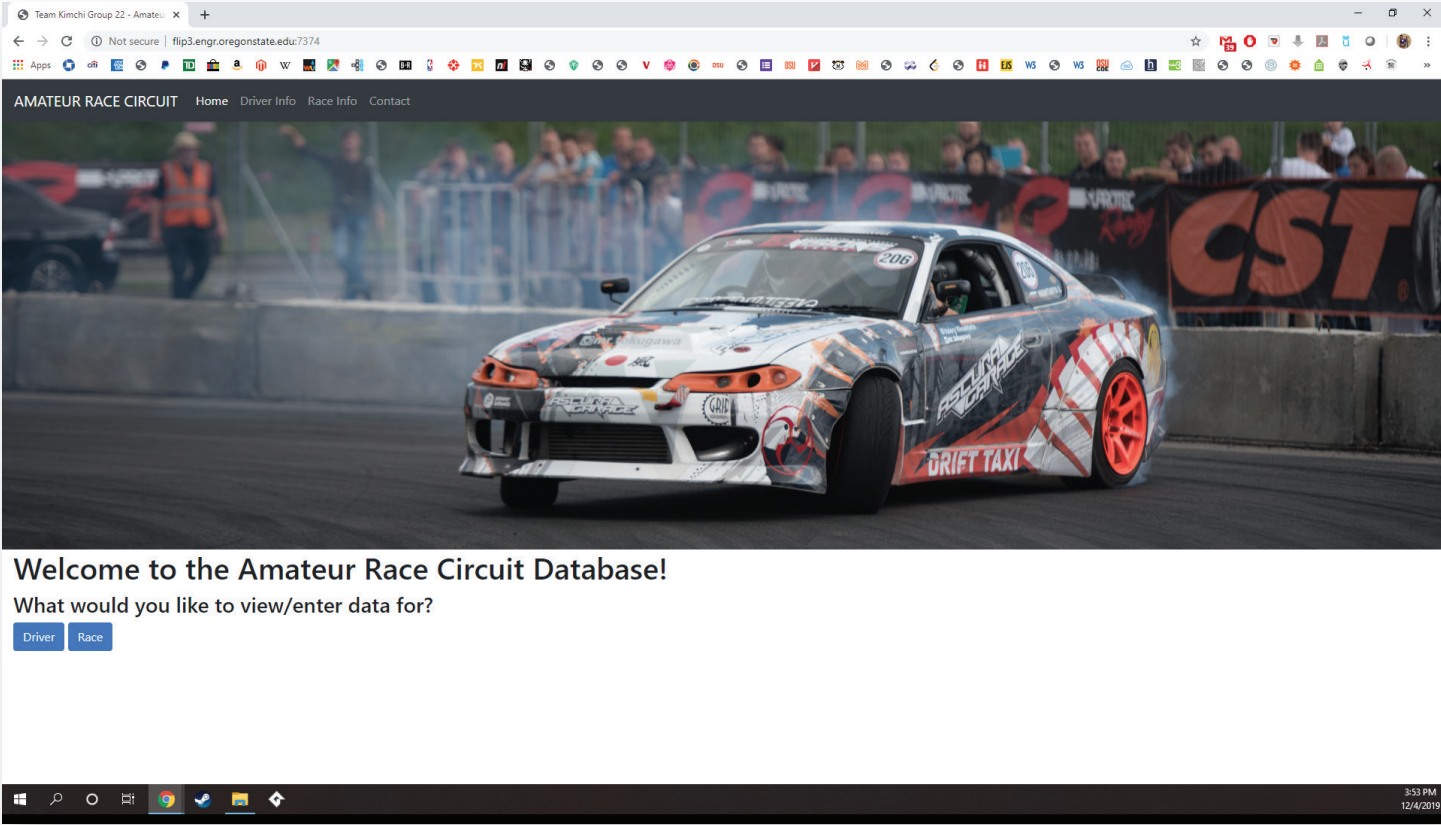


SCHEMA



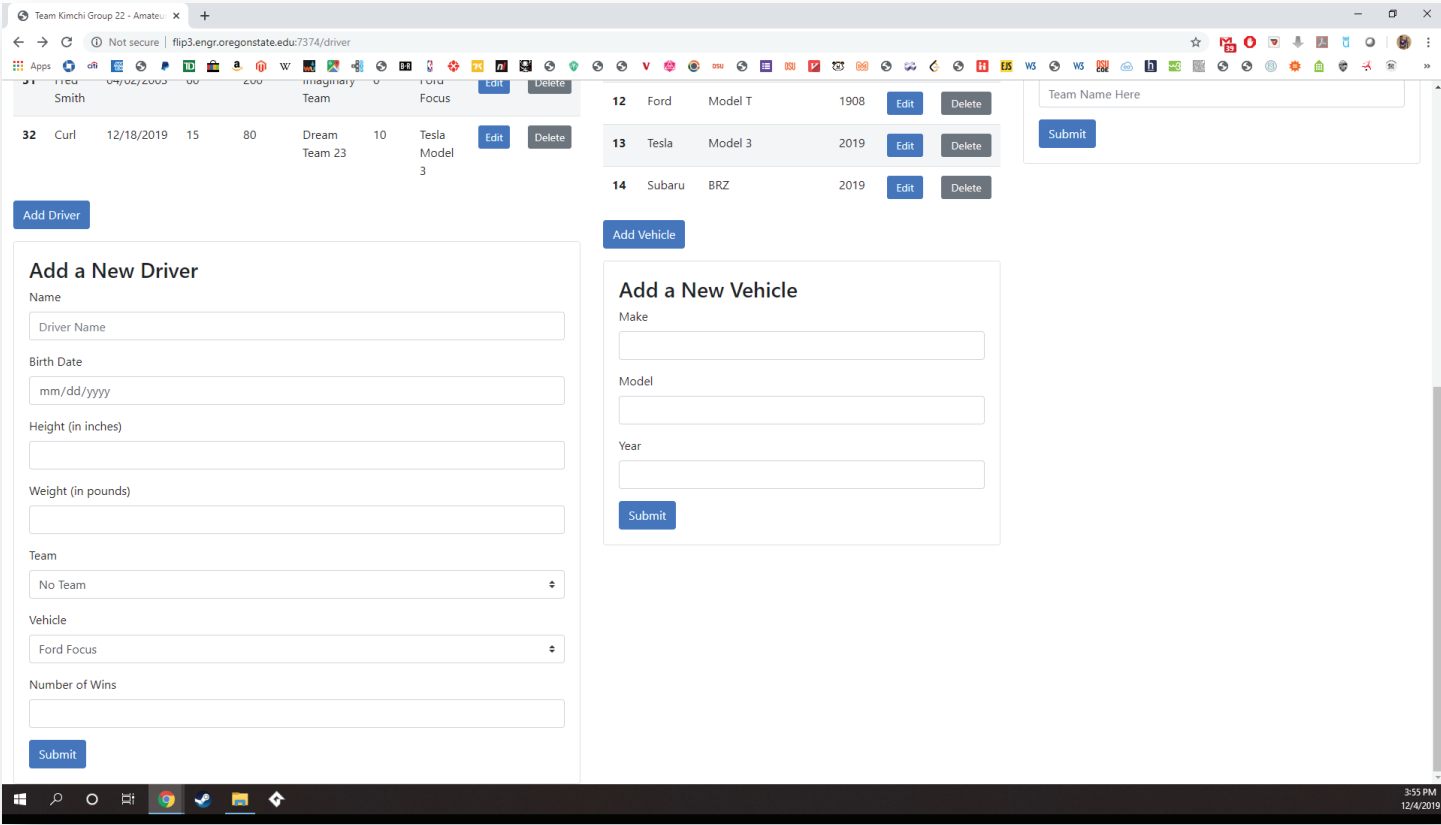
# CRUD SCREENSHOTS

## HOME PAGE



# CREATE

## DRIVER & VEHICLE



CREATE RACE, RACE-DRIVER, & TRACK

Team Kimchi Group 22 - Amateu

Not secure | flip3.engr.oregonstate.edu:7374/race

Welcome to the Race Page!

Race Data

Race ID	Track	Date	Weather	Winner	
34	Testing1	07/08/1999	rainy	Benny	<a href="#">Edit</a> <a href="#">Delete</a>
38	Hot Wheels	11/14/2019	Roomy	Bench Press	<a href="#">Edit</a> <a href="#">Delete</a>

Add Race

Add a New Race

Track

Testing1

Date of the Race

mm/dd/yyyy

Weather

Winner's ID#

Mario

Submit

Drivers in Race

Race	Driver	
Testing1 - 34	Deadlift	<a href="#">Delete</a>
Hot Wheels - 38	Bench Press	<a href="#">Delete</a>
Hot Wheels - 38	Smart Alec	<a href="#">Delete</a>

Add Driver to Race

Add a Driver to a race

Race

Testing1 - 34

Driver

Mario

Submit

Track Data

Track ID	Name	Address	City	State	Zip	Length	
13	Testing1	123 Main St	Plaino	IL	6000	1000	<a href="#">Edit</a> <a href="#">Delete</a>
15	Hot Wheels	My Room	My House	MY	80004	50	<a href="#">Edit</a> <a href="#">Delete</a>
16	The Hogfarm	Oinky Street	Oinkville	OK	66666	666	<a href="#">Edit</a> <a href="#">Delete</a>

Add Track

Add a New Track

Track Name

Track Name Here

Track Address

Address

City

ST

Zip

Track Length (in feet)

Submit

CREATE TEAM

Team Kimchi Group 22 - Amateu

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AMATEUR RACE CIRCUIT

Home Driver Info Race Info Contact

Welcome to the Driver Page!

Search for drivers by Name

Mario

Search

Driver Data

ID	Name	Date of Birth	Height	Weight	Team	Wins	Vehicle	
1	Mario	11/14/2019	60	210	Dream Team 23	20	Ford Model T	<a href="#">Edit</a> <a href="#">Delete</a>
21	Pizza	10/15/2019	1	144	Dream Team 23	1	Dodge Viper SRT	<a href="#">Edit</a> <a href="#">Delete</a>
22	Bench Press	11/07/2019	500	8000	Builders	10	Subaru BRZ	<a href="#">Edit</a> <a href="#">Delete</a>
23	Benny	01/22/1955	3000	2	Dream Team 23	34	Lexus GSSSSS	<a href="#">Edit</a> <a href="#">Delete</a>
31	Fred Smith	04/02/2003	60	200	Imaginary Team	0	Ford Focus	<a href="#">Edit</a> <a href="#">Delete</a>
32	Curl	12/18/2019	15	80	Dream Team 23	10	Tesla Model 3	<a href="#">Edit</a> <a href="#">Delete</a>

Add Driver

Vehicle Data

ID	Make	Model	Year	
1	Ford	Focus	2019	<a href="#">Edit</a> <a href="#">Delete</a>
2	Tesla	Model 3	2019	<a href="#">Edit</a> <a href="#">Delete</a>
4	Lexus	GSSSSS	2017	<a href="#">Edit</a> <a href="#">Delete</a>
5	TEST	BS	0000	<a href="#">Edit</a> <a href="#">Delete</a>
7	Mazda	Mazda3 Hatchback	2015	<a href="#">Edit</a> <a href="#">Delete</a>
8	Dodge	Viper SRT	2005	<a href="#">Edit</a> <a href="#">Delete</a>
11	Ford	Mustang	2015	<a href="#">Edit</a> <a href="#">Delete</a>
12	Ford	Model T	1908	<a href="#">Edit</a> <a href="#">Delete</a>
13	Tesla	Model 3	2019	<a href="#">Edit</a> <a href="#">Delete</a>
14	Subaru	BRZ	2019	<a href="#">Edit</a> <a href="#">Delete</a>

Add Vehicle

Team Data

Team ID	Name	
1	Imaginary Team	<a href="#">Edit</a> <a href="#">Delete</a>
13	Dream Team 23	<a href="#">Edit</a> <a href="#">Delete</a>
14	Builders	<a href="#">Edit</a> <a href="#">Delete</a>
15	Team in Training	<a href="#">Edit</a> <a href="#">Delete</a>

Add Team

Add a New Team

Team Name

Team Name Here

Submit

READ & DELETE DRIVER, VEHICLE & TEAM

Team Kimchi Group 22 - Amateu

Not secure | flip3.engr.oregonstate.edu/7374/driver

AMATEUR RACE CIRCUIT

HomeDriver InfoRace InfoContact

Welcome to the Driver Page!

Search for drivers by Name

Enter name here...

Search

Driver Data

ID	Name	Date of Birth	Height	Weight	Team	Wins	Vehicle		
1	Mario	11/14/2019	60	210	Dream Team 23	20	Ford Model T	Edit	Delete
21	Pizza	10/15/2019	1	144	Dream Team 23	1	Dodge Viper SRT	Edit	Delete
22	Bench Press	11/07/2019	500	8000	Builders	10	Subaru BRZ	Edit	Delete
23	Benny	01/22/1955	3000	2	Dream Team 23	34	Lexus GS5555	Edit	Delete
31	Fred Smith	04/02/2003	60	200	Imaginary Team	0	Ford Focus	Edit	Delete
32	Curl	12/18/2019	15	80	Dream Team 23	10	Tesla Model 3	Edit	Delete

Add Driver

Vehicle Data

ID	Make	Model	Year		
1	Ford	Focus	2019	Edit	Delete
2	Tesla	Model 3	2019	Edit	Delete
4	Lexus	GS5555	2017	Edit	Delete
5	TEST	BS	0000	Edit	Delete
7	Mazda	Mazda3 Hatchback	2015	Edit	Delete
8	Dodge	Viper SRT	2005	Edit	Delete
11	Ford	Mustang	2015	Edit	Delete
12	Ford	Model T	1908	Edit	Delete
13	Tesla	Model 3	2019	Edit	Delete
14	Subaru	BRZ	2019	Edit	Delete

Add Vehicle

Team Data

Team ID	Name		
1	Imaginary Team	Edit	Delete
13	Dream Team 23	Edit	Delete
14	Builders	Edit	Delete
15	Team in Training	Edit	Delete

Add Team

READ & DELETE RACE, RACE-DRIVER & TRACK

Team Kimchi Group 22 - Amateu

Not secure | flip3.engr.oregonstate.edu/7374/race

AMATEUR RACE CIRCUIT

HomeDriver InfoRace InfoContact

Welcome to the Race Page!

Race Data

Race ID	Track	Date	Weather	Winner		
34	Testing1	07/08/1999	rainy	Benny	Edit	Delete
38	Hot Wheels	11/14/2019	Roomy	Bench Press	Edit	Delete

Add Race

Drivers in Race

Race	Driver	
Testing1 - 34	Deadlift	Delete
Hot Wheels - 38	Bench Press	Delete
Hot Wheels - 38	Smart Alec	Delete

Add Driver to Race

Track Data

Track ID	Name	Address	City	State	Zip	Length		
13	Testing1	123 Main St	Plaino	IL	6000	1000	Edit	Delete
15	Hot Wheels	My Room	My House	MY	80004	50	Edit	Delete
16	The Hogfarm	Oinky Street	Oinkville	OK	66666	666	Edit	Delete

Add Track



# SEARCH DRIVER

Team Kimchi Group 22 - Amateu

Not secure | flip3.engr.oregonstate.edu:7374/driver/search/Mario

AMATEUR RACE CIRCUIT

HomeDriver InfoRace InfoContact

Welcome to the Driver Page!

Search for drivers by Name

Enter name here...

Search

Driver Data

ID	Name	Date of Birth	Height	Weight	Team	Wins	Vehicle
1	Mario	11/14/2019	60	210		20	<div>EditDelete</div>

Add Driver

Vehicle Data

ID	Make	Model	Year	
1	Ford	Focus	2019	<div>EditDelete</div>
2	Tesla	Model 3	2019	<div>EditDelete</div>
4	Lexus	GSSSSS	2017	<div>EditDelete</div>
5	TEST	BS	0000	<div>EditDelete</div>
7	Mazda	Mazda3 Hatchback	2015	<div>EditDelete</div>
8	Dodge	Viper SRT	2005	<div>EditDelete</div>
11	Ford	Mustang	2015	<div>EditDelete</div>
12	Ford	Model T	1908	<div>EditDelete</div>
13	Tesla	Model 3	2019	<div>EditDelete</div>
14	Subaru	BRZ	2019	<div>EditDelete</div>

Add Vehicle

Team Data

Team ID	Name	
1	Imaginary Team	<div>EditDelete</div>
13	Dream Team 23	<div>EditDelete</div>
14	Builders	<div>EditDelete</div>
15	Team in Training	<div>EditDelete</div>

Add Team

# UPDATE DRIVER

Team Kimchi Group 22 - Amateu

Not secure | flip3.engr.oregonstate.edu:7374/driver/ud21

AMATEUR RACE CIRCUIT

HomeDriver InfoRace InfoContact

Edit Driver Data

Update Pizza:

Name

Pizza

Birth Date

10/15/2019

Height (in inches)

1

Weight (in pounds)

144

Team ID#

Dream Team 23

Vehicle ID#

Dodge Viper SRT

Number of Wins

1

Submit

## UPDATE RACE

The image is a screenshot of a web browser window displaying a web application. The browser's address bar at the top shows the URL 'http://flip3.engr.oregonstate.edu:7374/race/ur34'. The web page has a dark grey header bar with the text 'AMATEUR RACE CIRCUIT' on the left and navigation links 'Home', 'Driver Info', 'Race Info', and 'Contact' on the right. Below the header, the main content area is white. It features a section titled 'Update Race 34:' followed by a form. The form contains four input fields: 'Track' with the value 'Testing1', 'Race Date' with the value '07/08/1999', 'Weather' with the value 'rainy', and 'Winner' with the value 'Benny'. Each input field has a small downward arrow on its right side, indicating a dropdown menu. Below these fields is a blue button with the text 'Submit'. The bottom of the image shows the Windows taskbar with various icons, including the Start button, search, and task view, along with the system clock showing '3:56 PM' and the date '12/4/2017'.

**UPDATE TEAM**

The screenshot displays a web browser window with the following elements:

- Browser Tab:** Team Kimchi Group 22 - Amateur
- Address Bar:** Not secure | flip3.engr.oregonstate.edu:7374/driver/ut13
- Page Header:** AMATEUR RACE CIRCUIT | Home | Driver Info | Race Info | Contact
- Main Title:** Edit Team Data
- Form Section:**
  - Title:** Update Dream Team 23
  - Label:** Team Name
  - Input Field:** A text box containing the text "Dream Team 23".
  - Submit Button:** A blue button labeled "Submit".
- Taskbar:** The Windows taskbar at the bottom shows the Start button, search icon, and several open applications including Chrome, Discord, and File Explorer.

## UPDATE TRACK

The image is a screenshot of a web browser window. The address bar shows the URL "http://flip3.engr.oregonstate.edu:7374/race/ut16". The page has a dark header with the text "AMATEUR RACE CIRCUIT" and navigation links: "Home", "Driver Info", "Race Info", and "Contact". The main content area is titled "Edit Track Data". Below this, there is a section "Update The Hogfarm". This section contains four input fields: "Track Name" with the value "The Hogfarm", "Track Address" with the value "Oinky Street", "Track Address" with the value "Oinkville", "Track Address" with the value "OK", and "Track Address" with the value "66666". Below these fields is a "Track Length (in feet)" field with the value "666". At the bottom of the form is a blue "Submit" button. The browser's taskbar at the bottom shows the Windows logo, a search icon, and several application icons. The system clock in the bottom right corner shows "3:56 PM" and "12/4/2017".

## UPDATE VEHICLE

Team Kimchi Group 22 - Amateur X

Not secure | flip3.engr.oregonstate.edu:7374/driver/uv1

AMATEUR RACE CIRCUIT Home Driver Info Race Info Contact

# Edit Vehicle Data

## Update

Make

Model

Year

Submit

3:56 PM 12/4/2019