

Touchdown Insights

A Data-Driven NFL Dashboard

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Target Audience

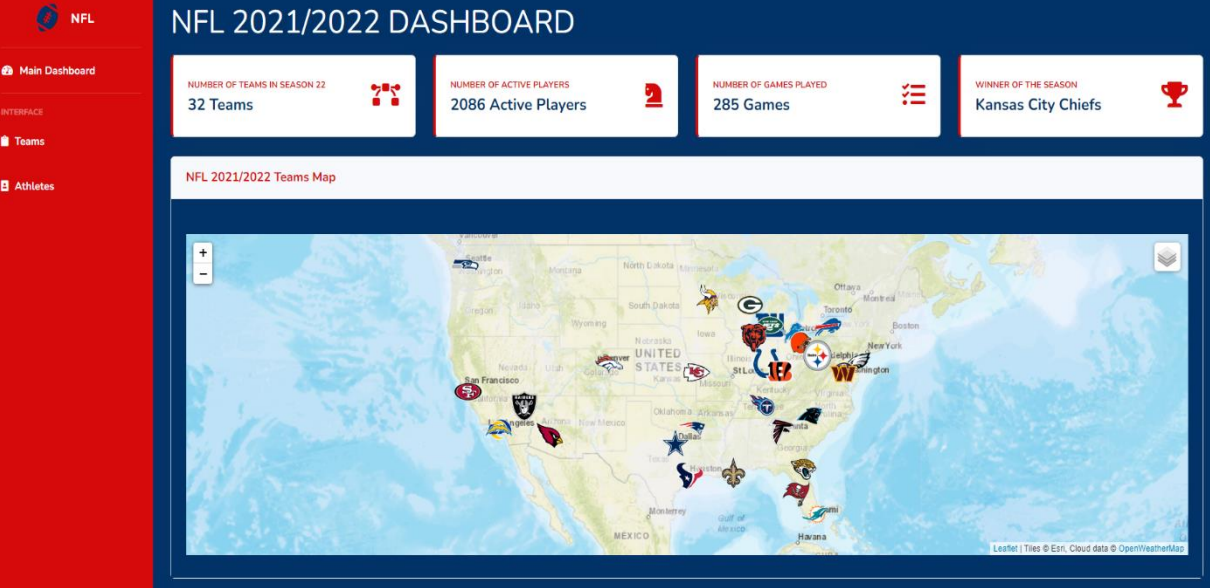
Football enthusiasts

Sports Analysts



NFL Sports Agents

Football coaches



The NFL Dashboard



Main Dashboard

- Overall Statistics
- Teams Venue Map



Teams Dashboard

- Team Logo
- Team Details
- Statistic charts



Athletes Dashboard

- Athlete Headshot
- Athlete Details
- Statistic charts

Data Sources



Project Stages



ETL



Database

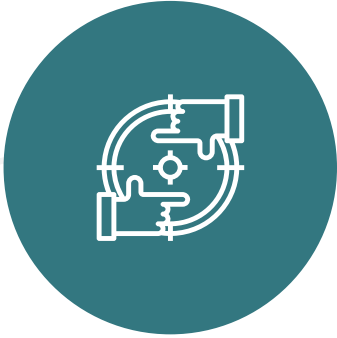


Visualizations



Deployment

Extract, Transform & Load (ETL)



- Scraped data from API
- Used embedded loops to extract teams and athletes data

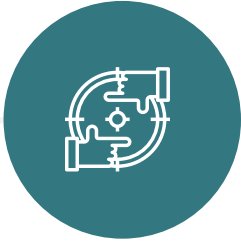
- Imported Statistics data from CSV



- Create Pandas Dataframes
- Converted to JSON and CSV outputs



SQL Database



- Imported CSV to
tables on PostgreSQL

- Developed ERD



www.quickdatadiagrams.com

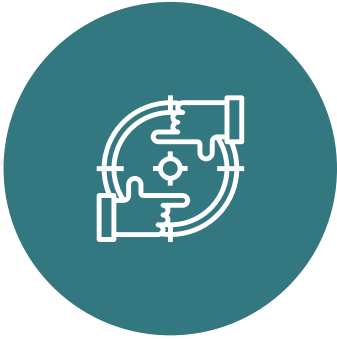
stats	
date	DATE
away	VARCHAR(20)
home	VARCHAR(20)
first_downs_away	INTEGER
first_downs_home	INTEGER
third_downs_away	VARCHAR(10)
third_downs	VARCHAR(10)
fourth_downs_away	VARCHAR(10)
fourth_downs_home	VARCHAR(10)
passing_yards_away	INTEGER
passing_yards_home	INTEGER
rushing_yards_away	INTEGER
rushing_yards_home	INTEGER
total_yards_away	INTEGER
total_yards_home	INTEGER
comp_att_away	VARCHAR(10)
comp_att_home	VARCHAR(10)
sacks_away	VARCHAR(10)
sacks_home	VARCHAR(10)
rushing_attempts_away	INTEGER
rushing_attempts_home	INTEGER
fumbles_away	INTEGER
fumbles_home	INTEGER
int_away	INTEGER
int_home	INTEGER
turnovers_away	INTEGER
turnovers_home	INTEGER
penalties_away	VARCHAR(10)
penalties_home	VARCHAR(10)
redzone_away	VARCHAR(10)
redzone_home	VARCHAR(10)
drives_away	INTEGER
drives_home	INTEGER
def_st_td_away	INTEGER
def_st_td_home	INTEGER
possession_away	TIME
possession_home	TIME
score_away	INTEGER
score_home	INTEGER

teams	
id	INTEGER
shortDisplayName	VARCHAR(20)
nickname	VARCHAR(20)
location	VARCHAR(50)
abbreviation	VARCHAR(10)
displayName	VARCHAR(50)
isActive	BOOLEAN
isAllStar	BOOLEAN
logos	VARCHAR(300)
OTLosses	FLOAT
OTWins	FLOAT
avgPointsAgainst	FLOAT
avgPointsFor	FLOAT
divisionWinPercent	FLOAT
gamesPlayed	INTEGER
losses	FLOAT
ties	FLOAT
wins	FLOAT
winPercent	FLOAT
points	INTEGER

athletes	
type	VARCHAR(20)
teamID	INTEGER
teamName	VARCHAR(50)
name	VARCHAR(200)
weight	INTEGER
height	INTEGER
age	INTEGER
birthCity	VARCHAR(100)
birthState	VARCHAR(30)
birthCountry	VARCHAR(30)
position	VARCHAR(50)
jersey	INTEGER
xp	INTEGER
status	VARCHAR(10)
headshot	VARCHAR(300)

team_venue	
Team_id	INTEGER
Abbreviation	VARCHAR(10)
Team_Name	VARCHAR(50)
Venue_id	INTEGER
Team_Logo	VARCHAR(300)
Team_Venue	VARCHAR(100)
Venue_City	VARCHAR(50)
Venue_State	VARCHAR(10)
Venue_ZipCode	INTEGER
Venue_Capacity	INTEGER
Venue_Grass	BOOLEAN
Venue_Indoor	BOOLEAN
Latitude	FLOAT
Longitude	FLOAT
Location	VARCHAR(100)

Visualizations – HTML/ CSS



- Template from bootstrap

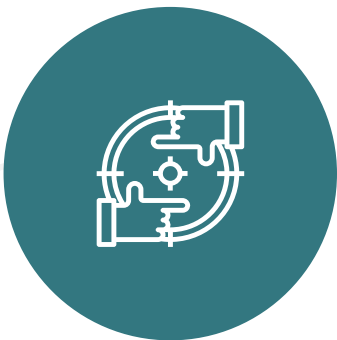
- Customized HTML to create the three views
- Modified to effectively display the visualizations



- Personalized CSS
- NFL color theme



Visualizations – JavaScript



- Three JS files
 - Teams
 - Athletes
 - Teams Venue

- Libraries used:
 - D3
 - Leaflet
 - **Highcharts** (new)

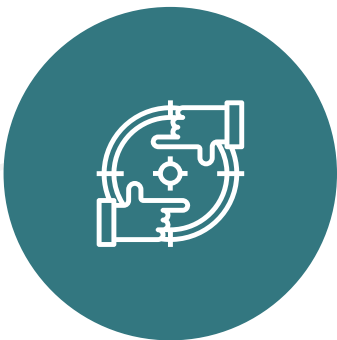


- Interactive Map
- Created dropdowns for Teams and Athletes
- Customization by adding labels, legends, tooltips



Deployment

- Deployed to **AWS**
- Deployed to **GitHub Pages**



- Created Python Flask app
- Added routes
- Included debugger



AWS:

<https://flask-service.ofeg1bv1af188.ca-central-1.cs.amazonlightsail.com/index.html>

GitHub Pages:

<https://gusmendesbh.github.io/project3-group1/index.html>



Thank you!

Questions??