1. **Link to our github repo:** [**https://github.com/jshaffe9/Final-Project-3155/tree/main/Documentation**](https://github.com/jshaffe9/Final-Project-3155/tree/main/Documentation)
2. **Team members**: Abdulah Ahmed, Aurian Finney, William Lyon, Jordan Shaffer
3. **Datasets and descriptions**
   1. Dataset 1 name and link: Club Soccer Ratings (<https://github.com/fivethirtyeight/data/tree/master/soccer-spi>)
      1. The dataset contains statistics regarding team strength for each home and away team, as well as predictions, in every match played in nearly every major soccer league since 2016. The “xg” column refers to shot-based expected goals. The “nsxg” column refers to non-shot expected goals. The “spi” column refers to the Soccer Power Index. The “adj\_score” column refers to adjusted score.
   2. Dataset 2 name and link: Ramen Ratings <https://www.kaggle.com/residentmario/ramen-ratings>
      1. Description 2: The Ramen Ratings dataset consists of 7 columns of ratings scraped from a ramen product review website: which review it is, with more recent ones being at the top; Brand of ramen; Variety, the product name of that brand’s ramen; Country; Style of consumption; and Star-based rating, out of 5, by the individual reviewer. There is an additional column for “top ten” of whether or not any of these reviews were ever in the top 10 of a specific year’s reviews, but the data is negligible in usefulness for that column.
   3. Dataset 3 name and link: [Out-of-pocket expenditure per capita (current US$)https://data.worldbank.org/indicator/SH.XPD.OOPC.PC.CD](https://data.worldbank.org/indicator/SH.XPD.OOPC.PC.CD)
      1. Description 3: The out of pocket expenditure per capita around the world.
   4. Dataset 4 name and link: “How much traffic is cruising for parking”

<https://transfersmagazine.org/magazine-article/how-much-traffic-is-cruising-for-parking/>

* + 1. Description 4: This data demonstrates how much traffic is just trying to find parking and how long it takes for them to find parking.

1. **Identify customers**
   1. Customers helped by project idea 1: The customer would be soccer fans who are interested in how a certain team or group of teams have improved/declined over recent years.
   2. Customers helped by project idea 2: People with a specific taste for ramen who really want to find the best ramen they can get their hands on, either in their home country or a destination country for visiting or immigrating to.
   3. Customers helped by project idea 3: The customers for my project would be students who are looking to move after college and don’t have much money.
   4. Customers helped by project idea 4: Students who commute to campus and use a parking pass
2. **Describe the problem that each proposed project solves and justify its need**
   1. Problem solved by project idea 1: The problem this project solves is being able to visualize how good a soccer team is quickly and to a user’s liking. Rating systems and graphs for soccer teams have already been developed, but it’s not as if every graph that can be made exists. This is especially true for smaller teams and leagues. This leads to soccer fans having to scour over spreadsheets tediously for a specific team or season or whatever parameter. And even then, such data can be hard to interpret. This project solves this problem and therefore saves the user precious time.
   2. Problem solved by project idea 2: Sometimes you just really want the perfect cup (or bowl or tray) of ramen, but due to whatever local economic factors (local stores only carrying specific brands, no restaurants serving ramen) you aren’t aware of all the options available to you in your country or a country you’re planning to visit or live. It’s useful to be able to learn of new brands or products offered by brands based on region, style, or average star ratings by reviewers.
   3. Problem solved by project idea 3: When most people graduate from college they look to move to somewhere new and sometimes they look to move to another country to expand their cultural views. Most graduates will not have as much money due to entry level jobs. With healthcare being such an important part of life because it can cause unexpected major expenses they may want to find a place where out of pocket expenses may not be as much.
   4. Problem solved by project idea 4: Everyone has had that time at UNCC where you ended up come to college late and need to find parking fast but end up at a deck that is pretty much filled and are struggling to find parking in which this app will allow the user to be able to find parking at uncc more easily to allow the students to feel less rushed to find parking and it would improve upon the current parking availability app from pats by also tell you what events are happening and which deck based on history is likely to be filled.
3. **State the product vision and how your web based project would be useful to society**
   1. Product vision for project idea 1: For soccer fans who want to easily and quickly visualize team performance. The product is a web app that allows users to produce graphs and provide information for nearly every professional soccer team in the world. Unlike FootBallDatabase, our product visualizes the data.
   2. Product vision for project idea 2: For “ramenphiles” who want to discover ramen products that are new to them, the product is a web app that allows users to sort through review information in various categories to determine brands that they would personally enjoy and make informed decisions based on average user ratings. Unlike a general search engine, the product is specific to an existing ramen review site’s data, allowing for more specific ramen-themed categories to be present.
   3. Product vision for project idea 3: I want to be able to help people find the best place to move to that meets their financial needs. I believe it will be useful to society because of how important healthcare is as well as finances.
   4. Product vision for project idea 4: I want to be able to collect the data from uncc pats in order to let people know whether or not they should leave early to have a better chance to find parking and based on previous data give possible predictions of how the parking might be at a given time.
4. **Identify the major features of each of the proposed projects**
   1. Major features for project idea 1: You would be able to filter by team, season, SPI (Soccer Power Index), and so on. You can also choose what kind of graph you want generated.
   2. Major features for project idea 2: Filter by country, style, variety, star rating, or brand to find new types of ramen or know what will be available to you in a specific country, or what country might be good to visit if you plan vacations based on your food cravings.
   3. Major features for project idea 3: You would be able to sort the data to find countries that fit your criteria.
   4. Major features for project idea 4: It would give an update on how many vehicles are parked at any given deck or lot at any given time and what are the current events that are happening on campus and whether or not those events might have an impact on parking.