Project Title: NBA Sports Betting Data Visualization Web App using JavaScript

Target Ship date: June 1, 2023

Overview:

Our team will create a data visualization web app using JavaScript on the client-side for an NBA sports betting website. The web app will provide users with relevant and interesting data to inform their betting decisions. The data will be publicly available NBA statistics. The web app will be hosted on a Devo droplet. The project will be divided into the following components:

1. Data Selection: Select the NBA statistics to be used in the web app. The data should include team and player stats, as well as historical data. The data should be relevant and interesting for sports betting. The Data Analyst will be responsible for this component.
2. Data Visualization: Use JavaScript to create interactive and visually appealing charts and graphs that provide insights for sports betting. The charts and graphs should be easy to understand and use. The Front-End Developer will be responsible for this component.
3. Interactivity: Create interactive features that allow users to explore the NBA statistics in meaningful ways. Users should be able to filter, sort, and compare the data. The interactive features should be user-friendly and accessible for sports bettors. The Front-End Developer will be responsible for this component.
4. Design: Design the overall look and feel of the web app. The design should be consistent with the branding of the NBA sports betting website. The UX Designer will be responsible for this component.
5. Development: Build the web app using HTML, CSS, and JavaScript. Ensure that the web app is responsive and works well on different devices. The Front-End Developer will be responsible for this component.

Roles:

1. Project Manager: Oversee the project and ensure that all components are completed on time and within budget.
2. Data Analyst: Select the NBA statistics to be used in the web app and ensure that they are relevant and interesting for sports betting.
3. Front-End Developer: Implement the data visualizations, interactivity, and design elements using JavaScript.
4. UX Designer: Design the overall look and feel of the web app and ensure that it is user-friendly and accessible for sports bettors.

Program Components:

- Flask app (__init.__py)
    - User input is stored from the website and served to html pages for functionality.
- HTML templates
    - Landing page/Main site
        - index.html – main screen where user can learn about our website and decide if they want to continue
            - We will highlight some major stats on the page
            - Have options to open either the stats.html or odds.html
        - stats.html – user is presented with information from our stats table which we parsed data from our API.
            - The user can search for the team they want to get stats of, which we will show
        - odds.html – it's similar to the stats.html but instead of getting stats of the teams the user is presented with the odds of a team winning one of their upcoming games
            - Shows the closest games outcomes by default
            - User can search for a game specifically and will be presented with that said data
- Js (/js)
    - Includes necessary javascript to help CCS files
- CSS files (/static)
    - Personal edits to bootstrap front-end
- API Keys (txt file)
    - txt files will all necessary API Keys (see APIs)

Conclusion:

Our team will work together to create a data visualization web app using JavaScript on the client-side for an NBA sports betting website. The web app will use publicly available NBA statistics that are relevant and interesting for sports betting. The final product will be visually appealing, interactive, and user-friendly for sports bettors. The web app will be hosted on a Devo droplet and will include the following components: data selection, data visualization, interactivity, design, and development. The team will work together to ensure that all components are completed on time and within budget.

Database Organization:

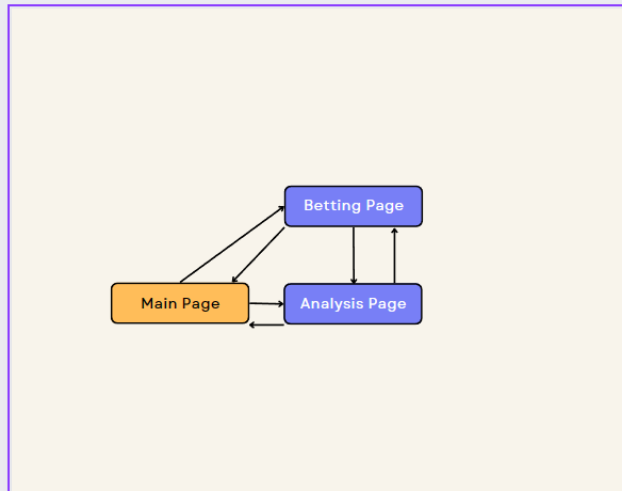
Analysis/Betting Table: Pregame Odds, +/- differential,

Stats: Historical data

Frontend Framework: Bootstrap. We chose Bootstrap because we believe we can better implement its stylistic functionalities into our website. In addition, we found Foundation a little trickier to use, while offering less options.

Breakdown of tasks:
Sebastian: Frontend/UX
Yusha: Frontend/UX
Aaron: UX designer
William: Data analyst

Site Map:



APIs:

- https://www.api-basketball.com/ Can obtain information about live stats and pregame odds