Project Proposal - **2021 Tokyo Olympics**

Project Summary:

Our project is a web application that will rely on a database from the 2021 Tokyo Olympics and will have many features involved to narrow down the data set and represent it in a palpable way for our intended audience to read. This mainly involved having functionality that includes filtering down the results and searching up different criterias such as Name, Country, Discipline, Gender and Age. We will achieve most of these queries using SQL and having a backend that will communicate with our dataset and present it in a frontend UI.

Our project also has a main focus of using the skills we have learned in our class to efficiently query for more data that we need to present to our users. We will implement CRUD operations, which include updating and deleting specific information such as editing athlete information and their competition records. We also plan on connecting another dataset such as a country dataset or coach experience dataset. With this information, the user could query things like how many athletes compete in a particular game for a country that is between X and Y. We plan on having a favoriting system as well to make sure that when a user saves a certain olympian or team that they can return to our web application and see their favorite aspects of the Olympics presented to them. We also plan to have a search procedure that can find data from our dataset using words that are found in a particular or multiple data points.

Description of our application:

Olympic Games are one of the main international events and also a matter of prestige for countries and therefore each country tries to give their best performance during the event, which is why our group was interested in working with this database. We wanted to create a web application that focuses on the data from the Tokyo Olympics, which was provided to us by our class. In general, the viewers of the Tokyo olympics do not have a specific web application that enables them to search for their favorite athletes, the events they performed during the olympics, where their favorite athletes are from, their ages, genders, etc. Our web application efficiently streamlines the search process by storing the database directly within our application, eliminating the need for views to use search engines like Google and Yahoo.

Instead, we will create a user interface that displays the database and has a search engine that enables users to browse through our database. Our project's primary goal is to effectively find additional data to present to our users by using the skills we have developed in class. To ensure that users can return to our web application and see their favorite elements of the Olympics presented to them after saving a particular Olympian or team, we also plan to have a favorite system. We will implement CRUD operations, which include updating and deleting specific information such as editing athlete information and their competition records. We also plan on connecting another dataset such as a country dataset or coach experience dataset. With this information, the user could query things like how many athletes compete in a particular game for a country that is between X and Y. Additionally, we intend to have a search method that can locate data from our dataset using words that are present in one or more specific data points. The majority of these queries will be completed using SQL and a backend that will communicate with our dataset and display it in a frontend user interface. Furthermore, our web application is not only helpful for individuals who are interested in the Olympics, but also researchers/analysts and analysts who need filtered data for research purposes.

Detailed usefulness description of your application:

One of the similar websites is the official website of the Olympics (https://olympics.com/en/olympic-games/tokyo-2020). However, it is targeted towards the general public, providing only limited representations of the data, for example medallists and the specific results of sports.

Our website's aim is to both provide an easy-to-navigate interface to view popular data, while also allowing detailed control over the data representation through different filters(only showing a certain country, gender, non-medalists, coaches…). Our website will be useful not only to the general public, but also people requiring the data for specific purposes (such as data analysts).

Detailed realness description of your application:

We're using Kaggle's "2021 Olympics in Tokyo" dataset. One of the datasets suggested by TA. This includes information on more than 11,000 athletes, 47 disciples, and 743 teams competing in the Tokyo Olympics in 2021 (2020). The participating Athletes, Coaches, Teams, and their gender-specific entries are all included in the dataset. It includes their names, nationalities, sports they compete in, genders of the competitors, and coaches' names.

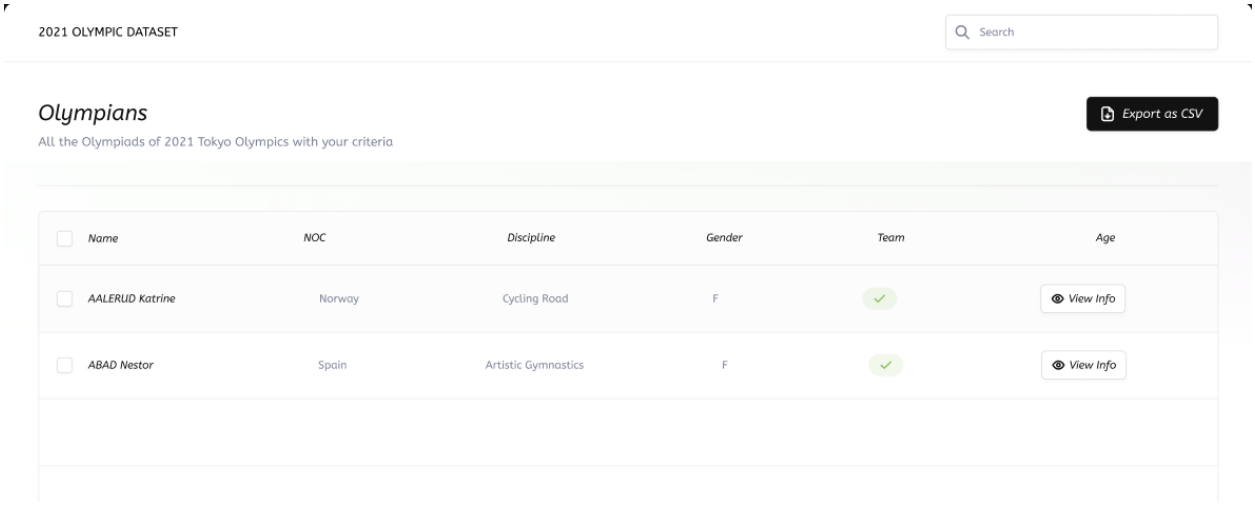
We intend to use the entire data file, and since we are aware that it is in CSV format, we will be retrieving and sorting the data using that format. Additionally, the data includes 5 CVs that correspond to a separate entity that we will use. We will use this information to query for additional data that we need to show to our users. To ensure that users can return to our web application and see their favorite elements of the Olympics presented to them after saving a particular Olympian or team, we also plan to have a favorite system. Additionally, we intend to have a search process that can locate information from our dataset using words or specific data points.

Detailed functionality description:

Our project will have a front end and back end component that will be integrated with each other to achieve a web application. The backend will use our dataset along with SQL queries to get the correct information that should be available on the website. The front end will also be built with HTML and CSS to achieve the UI. There will also need to be a service that hosts our website such as gitlab.

The functionality of our application will use filtering to present our dataset in a way and view that gives the user only the subset they desire. They can filter by name, age, country, discipline, and gender and save your favorite Olympiads or teams from the 2021 Olympics. You are also able to search the dataset and find a certain attribute of a data point and display all the results where there is a substring of one of their attributes that is searched up. Rucha and Anika will be responsible for sql queries and backend while Bob and Abram will mostly be working on the HTML and CSS to make sure the web application has a UI.

Detailed low-fidelity UI mockup of your application:



Detailed project work distribution across the team:

While discussing project responsibilities, we decided to divide up tasks according to individual expertise on database backend and frontend systems, while keeping in mind equal work distribution. The people responsible for the backend system will be Anika and Abram and the frontend team will be Rucha and Bob. Since Anika and Abram have more experience with writing and formatting SQL queries to get information from the Tokyo Olympic database, they decided to take responsibility for filtering by name, age, country, discipline, and gender and saving favorite Olympiads or teams from the 2021 Tokyo Olympics database system.

For the frontend aspect, Bob and Rucha plan to use HTML/CSS programming language to design a creative UI interface to support the backend system. They will also support backend and SQL query development to build expertise with the backend system as well. The frontend team also plans to format the data into visually appealing graphs. Overall, each person will play an influential and equal role in the website development process.