Project Proposal
You may send a one page proposal document (in a PDF format) describing your final project. This proposal should include the following:
1. Name of your final project and a short synopsis/description (1 paragraph max).

College Basketball: Multi-Team Events (MTE) and Offensive Efficiency
Following UConn's shocking three upset losses in the Maui Invitational, head coach Dan Hurley announced his team would no longer participate in MTEs. This project seeks to explore how MTEs affect a team's offensive and defensive efficiency. By comparing top 25 teams that participate in MTEs with those that opt out, the project will analyze their offensive performance throughout the season. Using Selenium to scrape data from NCAA's stats.org, the project will evaluate and compare team efficiency metrics, aiming to uncover the role MTEs play in shaping a team's offensive success.

2. What problem are you trying to solve, which question(s) are you trying to answer?

This project addresses how MTEs impact a team's offensive efficiency. MTEs, often hosted at high-profile locations like the Bahamas, Hawaii, or Florida, provide athletes with opportunities to relax outside their usual college environment while competing in elite basketball matchups. However, these events may disrupt daily routines, potentially affecting performance. The project aims to determine whether participating in MTEs has unintended consequences on offensive efficiency and to assess the broader implications for team preparation and success.

3. How do you intend to collect the data and where on the web is it coming from?

Data will be collected using Selenium to scrape statistics from NCAA's stats.org. The project will navigate to team statistics pages by identifying team-specific XPaths. Using action chains, it will extract statistical data and save it as a CSV file for further analysis.

4. What type of data cleaning and/or analysis are you going to perform on the data?

The analysis will focus on players contributing meaningful minutes to team statistics, excluding those with minimal playtime. A custom metric will be created to evaluate offensive performance before and after MTEs, comparing teams that participated in MTEs with those that did not. To prevent bias, teams will be balanced using a scaling method, ensuring a fair comparison between higher- and lower-ranked teams.

5. What kind of visualizations are you going to use to illustrate your findings?

Matplotlib will be used to create scatter plots comparing offensive and defensive efficiency. Additional visualizations, such as correlation matrices, will highlight relationships between key statistics like points, assists, and rebounds. These will accompany metrics developed in the project to provide clear insights into efficiency trends and the impact of MTEs.