Test Plan for 3 Features

Feature 1 | Statistics Time Frame Selection
Description This feature consists of a dropdown list of different time frame options: 1 week, 2 weeks, 1 month, 6 months, and 1 year. This feature is located on the statistics page. The user may select any one of these options and the webpage will display spotify data only over this particular timeframe. All statistics visualizations should change to reflect the current selected time frame. Users should not need to refresh the page in order to view the time frame changes.

- User Acceptance Test Cases:
  - Test Case 1
    - Test Data / Criteria:
      - **Web page responds to user mouse clicks on time frame options,**
    - Test Environment:
      - Web browser
    - Expected Test Results:
      - The web page should respond to mouse clicks on the time frame options, altering the time frame over which Spotify statistics are displayed. All statistics diagrams should reflect visual changes (both graphical and numerical, to show data over the new time frame).
    - User Acceptance Testers:
      - Team members / General public
    - Risks:
      - None
  - Test Case 2
    - Test Data \ Criteria
      - **Users cannot select more than one time frame option**
    - Test Environment:
      - Web browser
    - Expected Test Results:
      - Users are unable to select more than one time frame, and if attempted, the web page will remain unresponsive to this action (or display a pop-up message to remind them)
    - User Acceptance Testers:
      - Team members / General public
    - Risks:
      - None

Feature 2 | Dynamic Artist Ranking

Description This feature consists of a vertical list of the user's artists, as retrieved from their Spotify account data, and ranked in some manner (either by listening-time, number of songs, or any other rankable statistic). The user shall be able to toggle the cutoff limit in the ranking list, changing the number of artists whose names are visible on the list.

- User Acceptance Test Cases:
  - Test Case 1
    - Test Data / Criteria:
      - **Upon selecting a toggle option, the user can change their artists ranking list to display only their top 10 artists or all of their artists.**
    - Test Environment:
      - Web browser
    - Expected Test Results:
      - The web page should respond to a mouse click on the toggle option, toggling the artist ranking list between showing only the user's top 10 artists and showing all their artists.
    - User Acceptance Testers:
      - Team members / General public
    - Risks:
      - None

Feature 3 | Session Management

Description: This feature consists of users' login status management. A logged-out user should have access to all general pages, such as the home page and login page. A logged-in user should have access to all the same pages, in addition to their statistics page, which shows their personalized spotify data over the time frame they have selected. Only one user should be able to log into the app with the same credentials at once.

  User Acceptance Test Cases:
  - Test Case 1
    - Test Data / Criteria:
      - **All login requests should fail if the user has not created an account**
    - Test Environment:
      - Web browser
    - Expected Test Results:
      - Upon attempting to login, the user should be prompted with a message directing them (or providing a link) to the registration page, where they may create a new account and link it to their spotify account.
    - User Acceptance Testers:
      - Team members / General public
    - Risks:
      - None
  - Test Case 2

- ■ Test Data / Criteria
  - ● **Users should be unable to login simultaneously with the same login credentials on different machines**
- ■ Test Environment
  - ● Web browser
- ■ Expected Test Results
  - ● The login page should prompt the user with a security vulnerability message, notifying the user that another login request has been made with the same credentials
- ■ User Acceptance Testers:
  - ● Team Members / General Public
- ■ Risks
  - ● Security vulnerabilities
- ○ Test Case 3
  - ■ Test Data / Criteria
    - ● **The user should be declined a login request if any of the following credentials fail to match their established credentials: email, username, and password.**
  - ■ Test Environment
    - ● Web browser
  - ■ Expected Test Results
    - ● The login page should give an incorrect-password / username prompt message, and should allow the user to re-enter their password / username information
  - ■ User Acceptance Testers:
    - ● Team Members / General public
  - ■ Risks
    - ● If the user is not declined when an incorrect password is given, it may be easier for malicious actors to access personal account data