Test Plan and Report

Product: Soccer Match Predictor
Team Name: Forecast FC
Date: 07/19/2024

System Test Scenarios

I. **Sprint 1 User Stories:**
   A. User Story 1: As a user I want to be able to select a Bundesliga club, so that I can see who they will be playing against this season.
   B. User Story 2: As a user I want to be able to view the upcoming 2024-2025 Bundesliga schedule so that I can plan my schedule accordingly.
   C. User Story 3: As a sports gambler, I want to be able to predict the outcome of matches so that I can make smarter betting decisions.

II. **Sprint 1 Test Scenarios:**
   A. User Story 1:
      - Deploy github-pages.
      - All 18 2024-2025 Bundesliga clubs should be visible.
      - Users can select any Bundesliga club to reveal further information.
   B. User Story 2:
      - Deploy github-pages.
      - Users should “View full season schedule” at the top.
      - Click it.
      - The entire schedule from August 2024 - May 2025 is visible to the user.
      - Swipe left to advance forward.

   C. User Story 3:
      - Assuming a club has been selected
      - Click on a match.
      - Users should see a prompt button to simulate a match.
      - Click the prompt button.
      - Users should now see the outcome of the prediction (W/L/D)

III. Sprint 2 User Stories:

A. User Story 1: As a user, I want to be able to view the team calendar for my club of choice to see the hardest stretch of matches.
B. User Story 2: As a user, I want to be able to view the head-to-head record of a fixture to get an idea of the competitive nature between two clubs.
C. As an analyst, I want to be able to compare my own predictions with the predictions of a machine learning model to see how realistic it can be.

IV. Sprint 2 Test Scenarios:

A. User Story 1:
   - Deploy github-pages.
   - Select a Bundesliga Club.
   - Users should be taken to the club's subpage.
   - An "Upcoming matches" column should be visible.
   - All 34 matches that the selected club will play are then listed.
   - Scroll up to progress through the season.

B. User Story 2:
   - Deploy github-pages
   - Users should "View full season schedule" at the top.
   - Click it.
   - Users should see two versions of the schedule.
   - Head-to-head records are there own column

C. User Story 3:
   - Assuming a club has been selected
   - Click on a match.
   - Users should see a prompt button to simulate a match.
   - Click the prompt button.
   - Users should now see the outcome of the prediction (W/L/D
   - Users should also see predicted percentages of W/L/D

V. Sprint 3 User Stories:

A. User Story 1: As a user, I want to simulate match outcomes for each fixture to experiment with different scenarios and anticipate possible results.

B. User Story 2: As a user, I want to have highly accurate match predictions so that I can trust the predictions and use them effectively.

VI. Sprint 3 Test Scenarios:

A. User Story 1:

- Assuming a club has been selected
- Click on a match.
- Users should see a prompt button to simulate a match.
- Click the prompt button.
- Users should now see the outcome of the prediction (W/L/D
- Users should also see predicted percentages of W/L/D

B. User Story 2:

- Assuming a club has been selected
- Click on a match.
- Users should see a prompt button to simulate a match.
- Click the prompt button.
- Users should now see the outcome of the prediction (W/L/D
- Users should also see predicted percentages of W/L/D

VII. Pass/Fail Results

1. Sprint 1:
   - User Story 1: Pass
   - User Story 2: Pass
   - User Story 3: Pass
2. Sprint 2:
   - User Story 1: Pass
   - User Story 2: Pass
   - User Story 3: Pass
3. Sprint 3:
   - User Story 1: Pass
   - User Story 2: Pass

VIII. Definition of Done

- Code checked into repository (Github)
- Code is reviewed for styling guidelines.
- Code passes all functionality tests.
- All tasks for user stories are done.
- Product is reviewed by the product owner at the end of each sprint.
- Github pages deploys an evolving executable product at the end of each sprint.

IX. Tests

- There is a set of functionality tests in the 2425_Calendars folder that tests the functionality of several functions that we used to scrape data from a PDF. A test PDF is also included which is the 2023-2024 Bundesliga Schedule.
- Model testing/training was done in the same file where the models were programmed.