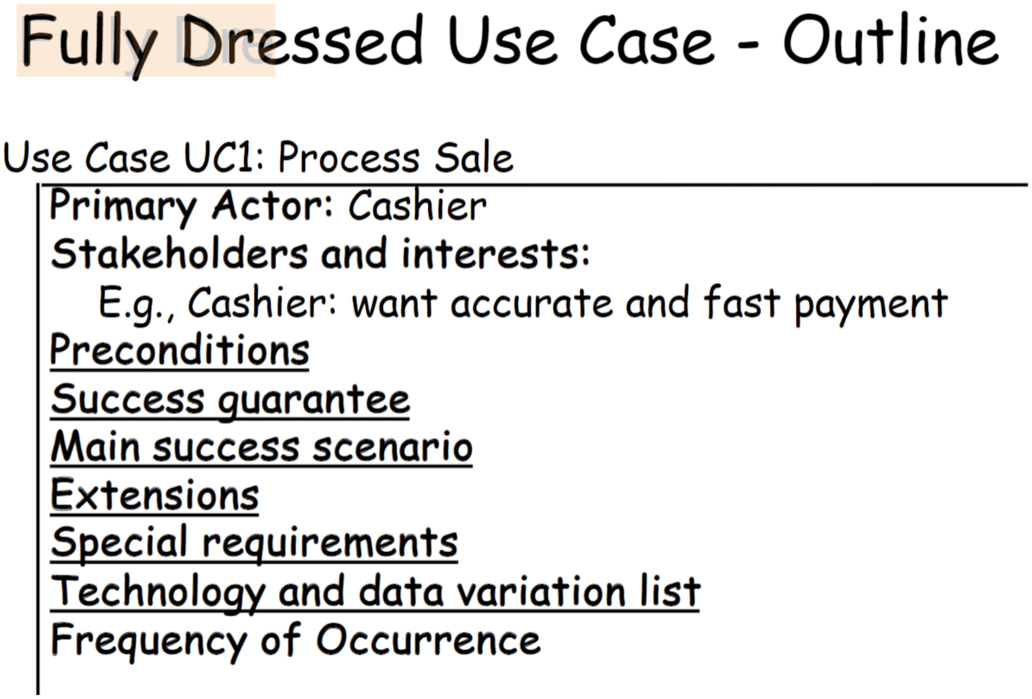
Fully Dressed Use Cases:



Fully Dressed Use Case - Outline

Use Case UC1: Process Sale

Primary Actor: Cashier

Stakeholders and interests:

E.g., Cashier: want accurate and fast payment

Preconditions

Success guarantee

Main success scenario

Extensions

Special requirements

Technology and data variation list

Frequency of Occurrence

Preston:

Player profile:

Primary Actor: App user

Stakeholders and interests: App user: want a well designed profile with accurate information regarding sports players

Preconditions: player's name is found and selected

Success guarantee:

- player profile is displayed with an updated player photo and information regarding their professional history/statistics and personal information
- Profile contains date of birth, birth location, weight, height, athletic achievements/accolades, university attended, current team, and career averages

Main success scenario/Extensions:

1) App user searches for a sports player by typing their name into the search bar
    a) Invalid player name
        i) System cannot identify a player with the corresponding name
        ii) Error message is displayed stating no players were found
2) The player's name pops up underneath the search bar
3) The app user selects the player's name
4) The player's corresponding profile opens for the app user to see
    a) Outdated/inaccurate information

        i) Player profile contains an outdated picture or inaccurate information about the player
        ii) User can report these errors by contacting the app developers by email

Special requirements:

- Information is accurate and up to date (maintainability)
- Player profiles are easy to access and navigate (usability)

Technology and data variation list:

2a) The player names are pulled from a database with all the players names, which get filtered based on the name searched

4a) The information and data regarding the player's statistics are stored and grabbed from a database

Frequency of Occurrence:

Dependent of the app user

Referee profile:

Primary Actor: App user

Stakeholders and interests: App user: want a well designed profile with accurate information regarding sports referees

Preconditions: referee's name is found and selected

Success guarantee:

- Referee profile is displayed with an updated referee photo and information regarding their professional history/statistics and personal information
- Profile contains date of birth, birth location, university attended, professional experience, national ranking, and career call accuracy

Main success scenario:

1) App user searches for a referee by typing their name or their sport into the search bar
    a) Invalid name/sport
        i) System cannot identify a referee or sport with the corresponding name
        ii) Error message is displayed stating no referees/sports were found
2) The referee's name pops up underneath the search bar
3) The app user selects the referee's name
4) The referee's corresponding profile opens for the app user to see
    a) Outdated/inaccurate information
        i) Referee profile contains an outdated picture or inaccurate information about the referee
        ii) User can report these errors by contacting the app developers by email

Special requirements:

- Information is accurate and up to date (maintainability)
- Player profiles are easy to access and navigate (usability)

Technology and data variation list:

2a) The referee names are pulled from a database with all the referee names, which get filtered based on the name searched

4a) The information and data regarding the referee’s statistics are stored and grabbed from a database

Frequency of Occurrence:

Dependent of the app user

Calendar, game schedule:

Primary Actor: App user

Stakeholders and interests: App user: want an easy to use calendar with accurate information and representation of the game schedule of desired sport

Preconditions: Calendar is selected and desired sport is specified

Success guarantee:

- Calendar is displayed showing in different modes (daily, weekly, or monthly)
- Games with times and team names/locations are displayed on game days

Main success scenario:

1) App user selects the calendar tab
2) App user specifies their desired sport
3) App user changes mode from “daily” to “weekly”
4) App user scrolls through the weeks of the season to see upcoming games
   a) No games
      i) User scrolls to far forward/backwards so no games were displayed on the calendar
      ii) Pop up message displays stating that the user has scrolled past the end of the season or before the beginning of the season
5) App user selects one of the games
   a) Game selected
      i) More information gets displayed about the game
      ii) Displays date, time, and location of the game
      iii) Includes information about when the stream begins
      iv) Provides links to ticketing websites/apps

Special requirements:

- Information is accurate and up to date (maintainability)
- Calendar is easy to access and navigate (usability)

Technology and data variation list:

4a/5a) The information and data regarding the game and schedule are stored and grabbed from a database

Frequency of Occurrence:

Dependent of the app user

Favorite players/teams:

Primary Actor: App user

Stakeholders and interests: App user: want to mark favorite teams and players

Preconditions: Teams and/or players are marked by user as a personal favorite

Success guarantee:

- Teams/players are saved as favorite teams for the user

- Notifications/news updates are sent to the user regarding their favorite teams/players
- App features can be tailored to the favorite teams (filters the data to only show related information to the favorite teams)

Main success scenario:

1) App user specifies their favorite team and players
2) App user goes to the favorites tab in the app and can see a list of their favorite teams and players
    a) No favorites
        i) App user hasn't specified what teams/players are their favorites
        ii) Message is displayed prompting user to select a favorite for the favorites tab to display data
3) App user can see the upcoming games for their favorite teams as well as news updates for their favorite teams and players

Special requirements:

- Information is accurate and up to date (maintainability)
- Easy to mark teams and players as favorites (usability)

Technology and data variation list:

1a) data/information about the teams and players are stored and pulled from a database

Frequency of Occurrence:

Dependent of the app user

Ivan:

User Profiles:

Primary Actor: App User

Stakeholders and Interest:

App User: Want to be able to display information about themself for other users to see

Preconditions: User is identified and authenticated

Success Guarantee:

- All profile attributes listed below other than name are optional
- Profile picture is saved/displayed
- User description is saved/displayed
- Name/Nickname is saved/displayed
- "Favorite Sports" list is saved/displayed
- "Favorite Team" list is saved/displayed
- User voting statistics are displayed

Main Success Scenario/Extensions:

1. User selects "profile" button on app
2. User selects "edit" button
3. User selects "name" field and enters name/nickname
    a. User does not fill "name" field
        i. Continue through steps 4-6
        ii. User selects "save"

iii. Error message occurs indicating to fill out name field
iv. User fills out field
v. User presses save
vi. Step 8

4. User selects “description” field and enters description of themself
    a. User does not fill out “description field”
        i. Continue
5. User selects “Favorite Sports” dropdown and selects a list of their favorite sport
    a. User does not fill out “Favorite Sports” field
        i. Continue
6. User selects “Favorite Team” dropdown and selects a list of their favorite teams
    a. User does not fill out “Favorite Team” field
        i. Continue
7. User Selects “Save”
8. App displays a preview of the user profile including all filled out fields
    a. User has not filled out a specific field
        i. That specific field is not displayed

Special Requirements:

- Usability (Sensible UI and navigation)

Technology and Data Variation List:

8a. Voting data may be displayed in graphical, bar, histogram, chart, etc. form

8b. Data is received from a database

Frequency of Occurrence:

Few times total.

Friends/Following Feature:

Primary Actor: App User

Stakeholders and Interest:

App User: Want to stay updated and connected with friends and peers who also use the app

Friends/Peers: Want to stay updated and connect with the app user

Preconditions:

- User is identified and authenticated
- Friends/Peers are identified and authenticated

Success Guarantee:

- Friends list shows all connected friends

Main Success Scenario/Extensions:

1. User selects “friends” button
2. User enters the full name of the friend they want to connect with
3. Friend profile appears in dropdown
    a. User typed in wrong name
        i. Profile does not appear in dropdown
    b. Profile does not exist
        i. Profile does not appear in dropdown

4. User selects profile
5. User elects to “connect” with person
6. Friends menu shows pending request to be friends with person
7. Person accepts friend request
    a. Person declines friend request
        i. Friends menu no longer shows pending request
8. Person is now listed as friend within the friend list

Special Requirements:

- Usability (Sensible UI and navigation)
- Reliability (Able to handle large amounts of users)

Technology and Data Variation List:

2a. User may be searched by username, userid, name

2b. All users are stored in secured database

Frequency of Occurrence: Fairly frequently

Login and Password Reset:

Primary Actor: App User

Stakeholders and Interest:

App User: Wants their personal data to be secure

Preconditions:

- User has already created and authenticated their account

Success Guarantee:

- User has successfully logged in

Main Success Scenario/Extensions:

1. User is at the login page
2. User selects to reset their password
    a. User logs in without resetting their password
3. Prompt to input username appears
    a. User forgot their username
        i. User selects to recover account utilizing their email address
        ii. Email address is inputted instead
4. User inputs username then selects “change password”
5. Email is sent to email of user indicating a change of password and a link to do so
6. User clicks on link and is directed to page to change password
7. User inputs new password then clicks save
8. App indicates that the update was successful
9. User returns to login page and inputs username and password
10. User clicks login
    a. User inputs wrong username
        i. User is prompted to try again

Special Requirements:

- Reliability (Able to handle large amounts of users)
- Security (Password handling)

Technology and Data Variation List:

8a. Password are securely stored and SHA encrypted
9a. User logins are securely stored and SHA encrypted

Frequency of Occurrence:

- Login every time user wants to access app
- Reset password very rarely

Live Chat/Group Chats:

Primary Actor: App User

Stakeholders and Interest:

App User: Wants to interact with other viewers or friends while watching the game
Friends: Want to interact with app user and mutual friends while watching the game
Other users: Want to interact with general users of app when watching the game

Preconditions:

- All users are successfully logged in and authenticated.
- User is successfully streaming a game
- User has successfully added friends

Success Guarantee:

- User can see other friends and other users messages in real time
- User can successfully send messages to be displayed to other users and/or friends in real time

Main Success Scenario/Extensions:

1. User opens chat
2. User is automatically on "global" tab where chats of other users watching the game are continuously displayed in real time
    a. User inputs message in textbox then clicks send
        i. Message then appears in global chat history
3. User switched to "friends" tab
4. A list of friends that are currently watching the game appear
5. User selects a group of friend to and selects "create group"
    a. User selects a singular friend
        i. User then messages this friend directly
6. User selects the message textbox and input a message, then clicks send
7. Message appears in chat history
8. Friend's message then appears in chat history

Special Requirements:

- Reliability (Able to handle large amounts of users)

Technology and Data Variation List:

2a. Chat is monetized such that derogatory comments are not displayed
2b. Global users can elect for their name to be displayed or not specified

Frequency of Occurrence:

User can open the chat nearly every time they stream a game

Pat:

Different App Themes:

Primary Actor: App User

Stakeholders and interests:

1. User: Wants to customize the app to personal aesthetics.
2. System Administrator: Wants to ensure app themes are compatible and do not introduce bugs.

Preconditions: User is logged into the app.

Success guarantee: User is able to successfully change the app theme.

Main success scenario/Extensions:

1. User navigates to settings.
2. User selects "Change Theme".
3. System displays available themes.
    a. User decides not to change the theme.
4. User selects the desired theme.
5. System confirms selection and applies the theme.

Special requirements: Themes must be compatible with multiple device resolutions.

Technology and data variation list: Different themes may have different design elements and require additional resources.

Frequency of Occurrence: Often

Live Streaming:

Primary Actor: App User

Stakeholders and interests:

1. User: Wants a smooth and uninterrupted stream.
2. Content Provider: Wants to ensure content is being streamed to authorized audiences.

Preconditions: User is connected to the internet.

Success guarantee: User can watch the livestream without interruptions.

Main success scenario/Extensions:

1. User selects a game to watch.
    a. System prompts user to log in.
2. System checks user authorization.
    a. User is not authorized.
3. System begins to stream.

Special requirements: Efficient handling of bandwidth.

Technology and data variation list: Stream quality varies based on the user's internet connection.

Frequency of Occurrence: Frequently

Game/Play Replays:

Primary Actor: App User

Stakeholders and interests:

1. User: Wants to rewatch certain moments of the game.
2. Content Provider: Wants to store and deliver replay content.

Preconditions: User is watching a live game or has selected a past game.

Success guarantee: User can watch replays.

Main success scenario/Extensions:

1. User selects the replay option.
    a. Replay Content is not available.
2. System fetches the replay content.
3. User watches the replay content.

Special requirements: Fast content delivery network.

Technology and data variation list: Replay quality may vary based on the original broadcast quality.

Frequency of Occurrence: Frequently

Customizable Layout:

Primary Actor: App User

Stakeholders and interests:

1. User: Wants to personalize the app layout.
2. System Administrator: Ensures custom layouts do not disrupt functionality.

Preconditions: User is watching a live game or has selected a past game.

Success guarantee: User is logged into the app.

Main success scenario/Extensions:

1. User navigates to settings.
2. User selects “Customize Layout”.
3. System shows layout options.
    a. User resets to default layout.
4. User makes desired changes.

Special requirements: Ensure all layout elements are responsive.

Technology and data variation list: Different layouts might have different components and arrangements.

Frequency of Occurrence: Occasionally, mainly when the user is setting up for the first time or after updates.

Dominic:

In-App Messaging:

Primary Actor: App User

Stakeholders and interests:

- User: Wants to send and receive messages from other app users.
- Friends/peers: Want to communicate with the app user.

Preconditions: User is successfully logged in and connected to the internet.

Success guarantee: User can send and receive text messages with friends/peers in real time

Main success scenario:

- User opens the messaging feature with the app
- User selects a friend/peer from their contacts
    - User selects more friends from contacts
        - User reaches limit to how many group members can be added
    - User composes group message
    - Message is sent and received to all members of the party
- User composes a message
    - User has option to attach media
    - User attaches a picture
    - Friend/peer receives attachment
- Messages sent and displayed in the chat history
- Friend/peer receives the message and replies
- User sees the reply in real time

Special requirements: Real-time message delivery, message notifications

Technology and data variation list: Handling of multimedia messages, message encryption.

Frequency of Occurrence: Frequent, as users communicate within the app.

Live Commentary:

Primary Actor: App User

Stakeholders and interests:

- User: Wants to read live commentary during a sports event.
- Commentators: Want to provide real-time commentary to app users.

Preconditions: User is watching a live game within the app.

Success guarantee: User can access live commentary related to the ongoing sports event

Main success scenario:

- User selects the live commentary option
    - User is unable to join due to account being temporarily suspended
    - User experiences a delay of the live comments
- System displays real-time comments from commentators and other users
- User can read live commentary
    - User engages with the live commentary

Special requirements: Efficient handling of high volumes of concurrent comments.

Technology and data variation list: Comment moderation, user blocking, integration with social media for comments.

Frequency of Occurrence: Frequent during live sports events.

Player/Referee Ratings:

Primary Actor: App User

Stakeholders and interests:

- User: Wants to rate and review sports players and referees.
- Sports Community: Benefits from user-contributed ratings and reviews for transparency.

Preconditions: User is logged in and viewing a player's or referee's profile.

Success guarantee: User can rate and review players and referees and view aggregate ratings

Main success scenario:

- User navigates to a player's or referee's profile
    - Player or referee profile not in system (account not created)
    - Player or referee profile set to hidden from blocked accounts
- User selects the "Rate and Review" option
- User provides a rating (e.g., stars) and writes a review
    - System automatically censors review for inappropriate language
- Rating and review are submitted and displayed on the player/referee profile
- User can also view average ratings and read other user reviews

Special requirements: Rating aggregation, review moderation.

Technology and data variation list: Data storage for ratings and reviews, algorithms for calculating average ratings.

Frequency of Occurrence: Occasional, when users want to provide feedback.

Interactive Polls/Surveys:

Primary Actor: App user

Stakeholders and interests:

- User: Wants to participate in polls and surveys related to sports events.
- Content providers: Want to gather user opinions and preferences.

Preconditions: User is logged in and viewing a sports event or related content.

Success guarantee: User can participate in interactive polls and surveys and see real-time results

Main success scenario:

- User encounters an interactive poll or survey while using the app
- User selects their preferred option or provides input
- User's response is recorded, and real-time poll results are displayed
    - User is given a badge due to increased interaction with the community
- User can view how other participants are responding
    - User can like/dislike select responses

Special requirements: Real-time poll results updates, support for various types of questions (multiple-choice, open-ended).

Technology and data variation list: Data storage for poll responses, real-time data updates.

Frequency of Occurrence: Occasional, during events with associated polls/surveys.

Nathan

Functional requirement 1: Statistics Tab

Primary Actor: App User

Stakeholders and interests:

App User: Wants to see the status of the current game and also information about the current sport

Preconditions:

- User needs to be logged in

Success guarantee:

- User can view current score of a game
- User can see specific games

Main success scenario:

1) User logins into their account
2) User finds an ongoing game through their streaming platform
3) Application has a statistics tab for the ongoing game with live data
4) User views the statistics

Special requirements:

- Needs to be quick with displaying the live data. (Performance)
- It must be presented in an understandable format (Usability)

Technology and data variation list:

The statistics must show differently for all types of sport and change based on the time the game has been played

Frequency of Occurrence:

Must be constantly updated to have the latest data from games.

Functional requirement 2: Notification Features

Primary Actor: App User

Stakeholders and interests:

The user will depend on the notification to get updates on sports they’re following

Preconditions:

User must have a device with the app installed and logged in

Success guarantee:

- User will be notified of games their following

Main success scenario:

1) User gets a notification that a game has started
2) User clicks on the notification and is led to the app
3) The game will start streaming for the user

Special requirements:

- Needs to work on time so user does not miss any play time (Reliability)

- Needs to be quick to open the app and find the specific game (Performance)

Technology and data variation list:

Needs to have different notification types based on user settings and what games are the subject of the notification

Frequency of Occurrence:

As permitted by the user or when a game that a user follows goes live

Functional requirement 3: Voting System

Primary Actor: App User

Stakeholders and interests:

This requirement will allow the user to interact with other through voting on games and their outcomes.

Preconditions:

User must be logged in and watching a current game

Success guarantee:

- The vote will affect the total number of votes on a certain issue or game
- It will display the votes from other users of the app

Main success scenario:

1) User was watching a game
2) A Vote on which team will win is brought up
3) User chooses an option
4) The live votes are displayed as a timer runs down

Special requirements:

- Needs to display live data from many users. (Performance)
- Needs to not interfere with the current game so that users experience is not ruined (Usability)

Technology and data variation list:

Needs to have different timings for when the poll is sent out. At the start of a game or when a turning point is reached based on the sport. Must store the results in a database to display on UI.

Frequency of Occurrence:

A few times during the game when scores are close or at the start.

Functional requirement 4: Separate views for different sports

Primary Actor: App User

Stakeholders and interests:

- The experience of the sports watcher is greatly affected by the way that the stream is displayed.

Preconditions:

User must be inside the app logged in and watch a sport

Success guarantee:

- There will be custom displays for various sports hosted on the streaming platforms

- Users will have a satisfactory experience watching all the sports that are available

Main success scenario:

1) User logs into the app
2) They open a football game to watch
3) The display is correctly themed and positioned so that the sport is properly shown
4) The user switches to a basketball game
5) The display is themed properly for basketball and shows the game properly

Special requirements:

- The themes for the different sports need to be properly made with the UI (Usability)
- The changes must not affect the performance of the app (Performance)

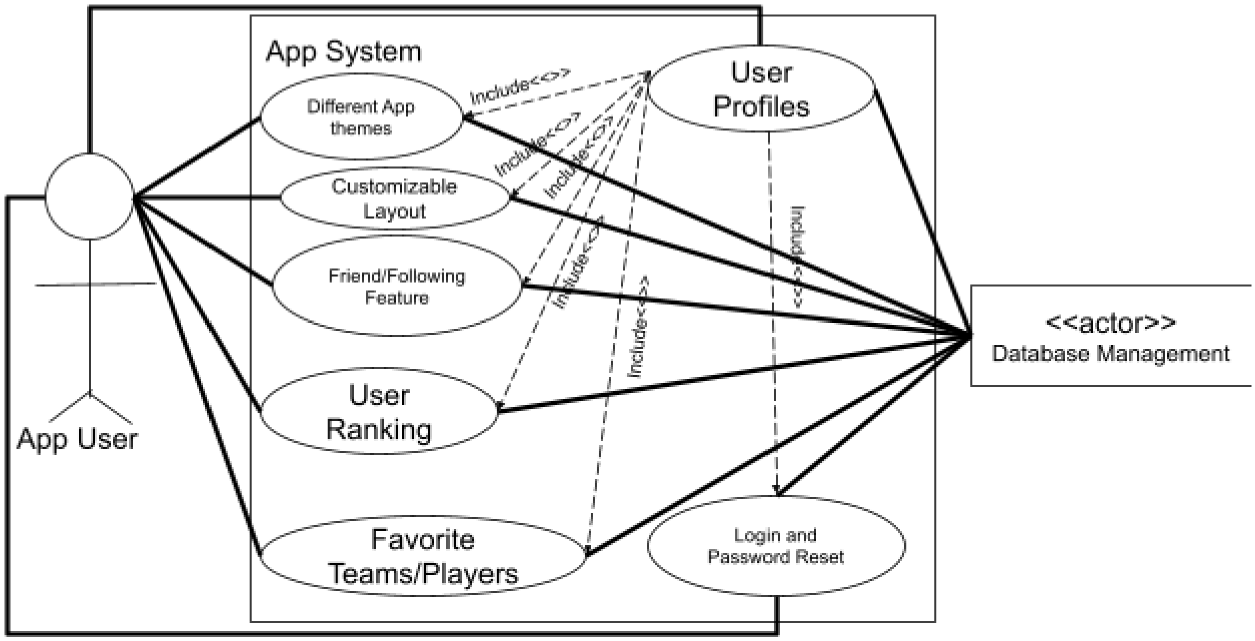
Technology and data variation list:

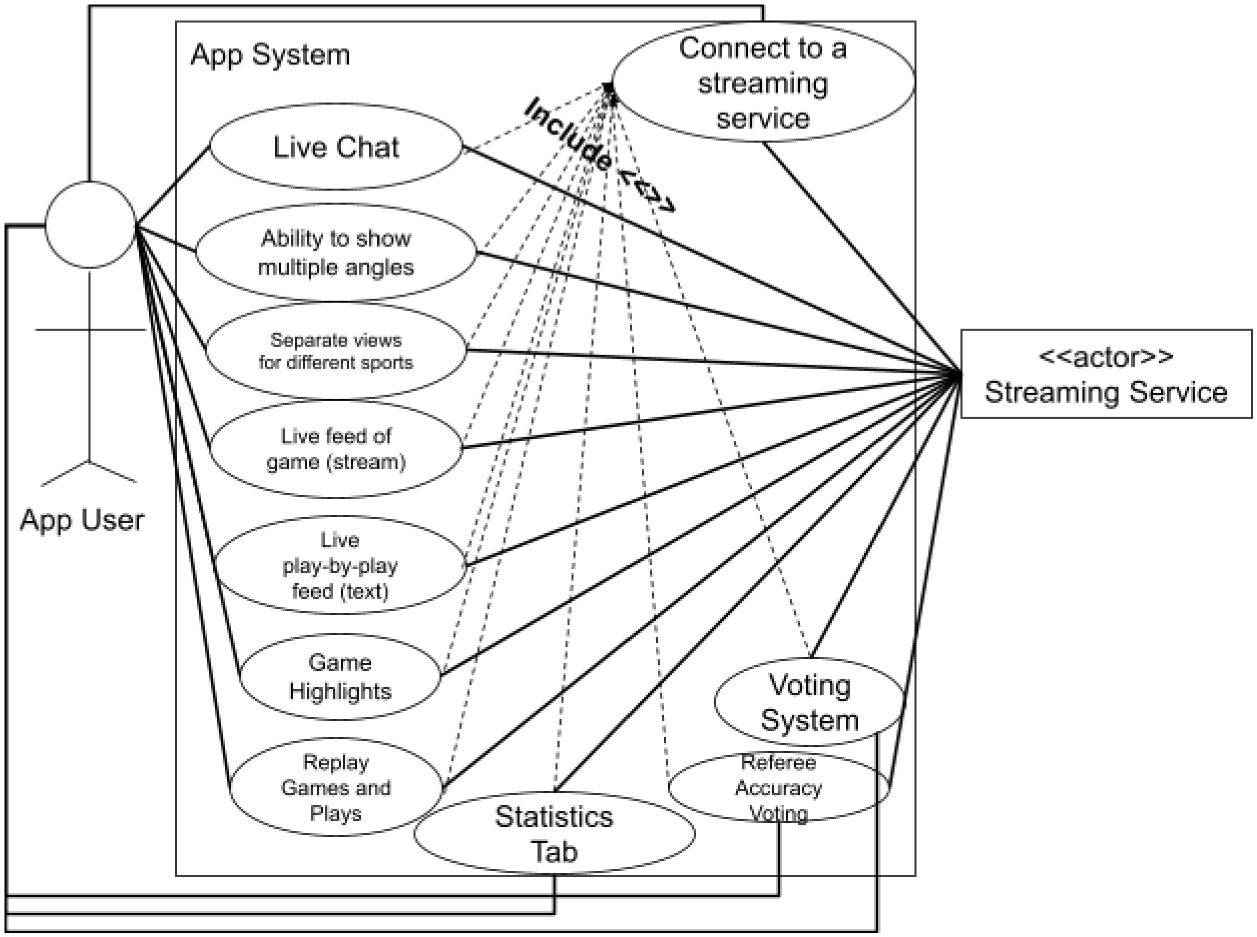
All the different sports must have their own custom theme and display.

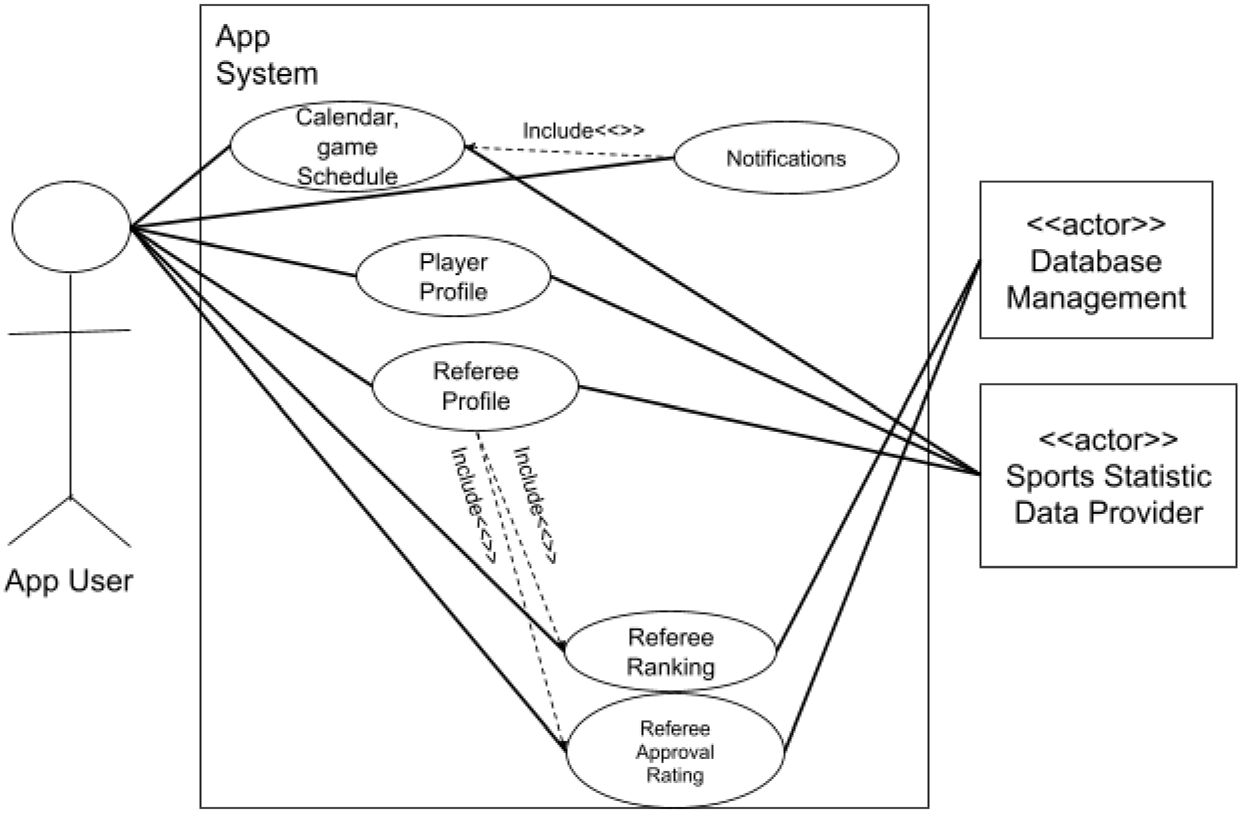
Frequency of Occurrence:

Must be a constant change that might be changed in future updates.

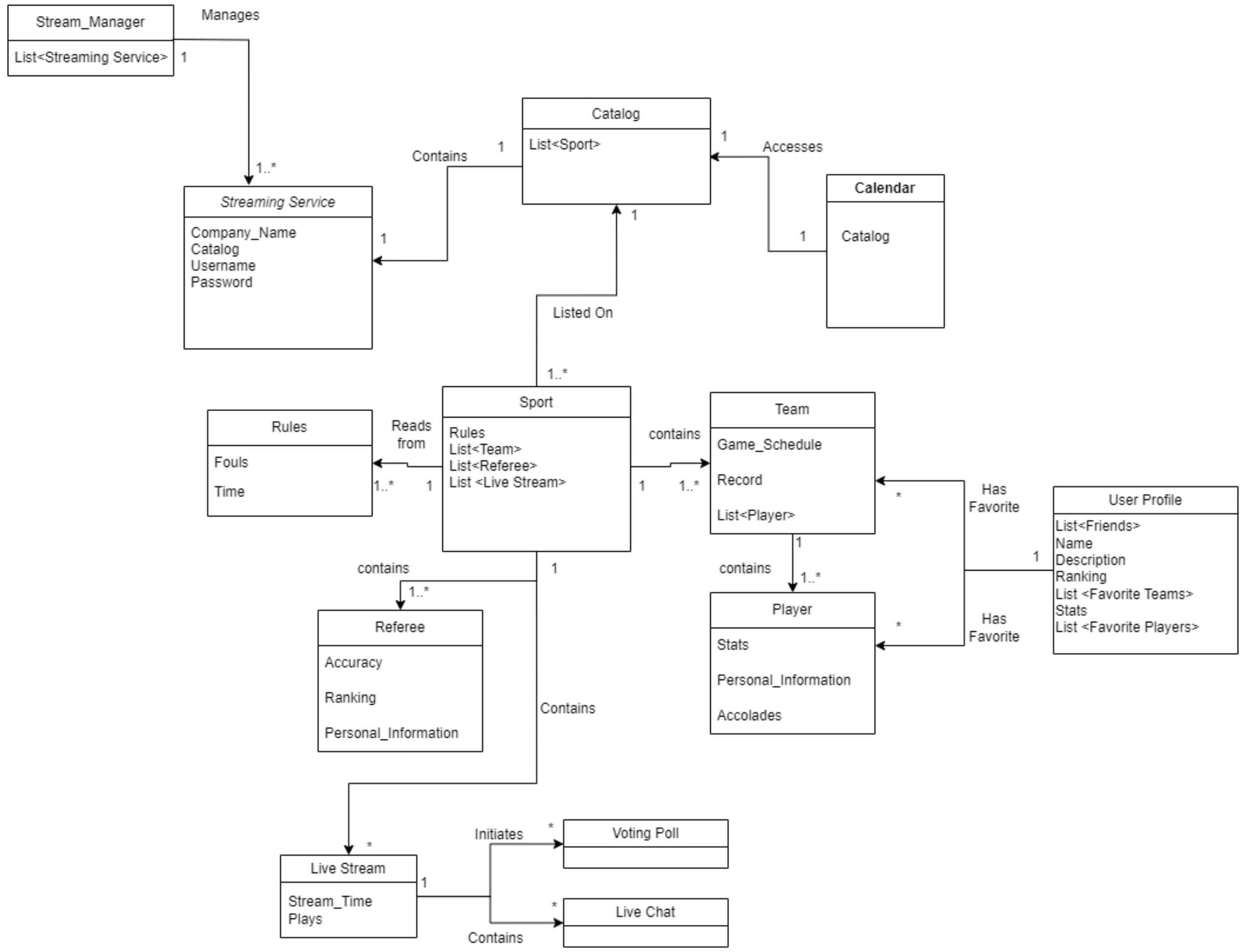
Use Case Diagrams:




App System
Connect to a streaming service
Include <<>>
Live Chat
Ability to show multiple angles
Separate views for different sports
Live feed of game (stream)
Live play-by-play feed (text)
Game Highlights
Replay Games and Plays
Statistics Tab
Voting System
Referee Accuracy Voting
App User
<<actor>> Streaming Service



Conceptual Class Diagram:



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Supplementary Specifications:

Preston:

Maintainability

- Features are up to date with most recent information/data
- Features run smoothly
- Updates are well tested and prepared before implementing
- App is regularly tested for bugs

Ivan:

Usability

- Features are easy to understand and use

- Features are simple to navigate to
- Minimized user confusion

Pat:

Scalability

- Features are easy to extend upon
- App able to handle an increased user count
- App is able to use increased bandwidth

Dominic:

Security

- User data within the app is encrypted
- Access to sensitive information is restricted to authorized users
- Robust authentication mechanisms are set in place to prevent unauthorized access
- Compliant with industry standards and best practices

Nathan:

Performance

- App is fast and doesn't suffer from lag
- Efficient use of resources
- Lightweight and able to run on most devices
- Quick switching between pages in the app

Repository Link:

https://github.com/PrestonEdwards/CS3704.git