Revised PD1 Uses Case based on your Feedback.

**Use Case: Rainy Weather**

* Actor: User
* Goal: To receive clothing suggestions based on the current rainy weather conditions using the browser's location services.
* Preconditions:
  + The User has the weather app open in a web browser.
  + The User grants permission for the browser to access their current location.
* Postconditions:
  + The User receives clothing recommendations tailored to the current rainy weather conditions.

Flow of Events:

1. User Opens the Weather App
   * The User navigates to the weather application in their web browser.
2. System Requests Location Permission
   * The system prompts the User to grant permission to access their current location.
   * The User allows the browser to use their location for weather data.
3. System Retrieves Current Rainy Weather
   * The system automatically retrieves the current weather data for the User's location using the browser's location services.
   * Weather parameters include rainfall intensity, chance of rain, and temperature.
4. User Requests Clothing Suggestions for Rain
   * The User indicates the desire for clothing suggestions suitable for rainy weather.
   * This action could be a manual request or an automatic prompt from the system.
5. System Analyzes Rainy Weather Conditions
   * The system analyzes the retrieved weather data to determine appropriate clothing recommendations for rain.
   * Factors considered may include:
     + Rainfall intensity (light, moderate, heavy)
     + Temperature (cold rain vs. warm rain)
     + Wind speed and direction
6. System Provides Clothing Recommendations for Rain
   * Based on the rainy weather analysis, the system suggests suitable clothing items for the User.
   * Recommendations may include:
     + Waterproof or water-resistant jackets
     + Umbrellas
     + Rain boots or waterproof shoes
     + Waterproof hats or hoods
     + Light layers to stay warm.
7. User Views Rainy Clothing Suggestions
   * The User sees the suggested rainy weather clothing items displayed on the app's interface.
   * Each item may have a brief description or image for reference.
8. User Saves or Acknowledges Rainy Suggestions
   * The User can choose to save the suggested rainy outfits for future reference.
   * Alternatively, the User may acknowledge the suggestions and proceed to dress accordingly for the rain.
9. Optional: Additional Rainy Weather Details
   * The system may offer additional details specific to rainy weather, such as:
     + Tips for staying dry in the rain.
     + Advice for proper umbrella usage.
     + Suggestions for waterproofing belongings.
10. User Exits the App
    * After viewing the clothing suggestions for rainy weather, the User can exit the weather app.

Alternative Flow:

* No Location Services Available:
  + If the User denies permission for location access:
    - The system informs the User that location services are required for accurate weather data.
    - The User can manually input their location (ZIP code) as an alternative.

Exceptional Flow:

* Error Retrieving Rainy Weather Data:
  + If the system encounters an error in retrieving rainy weather information:
    - The system informs the User of the issue with retrieving weather data.
    - The User may choose to:
      * Retry retrieving rainy weather data.
      * Check back later for updated rainy weather suggestions.
      * Proceed without specific rainy weather clothing suggestions (if feasible).

This use case outlines the steps involved when a User wants to receive clothing suggestions tailored to the current rainy weather conditions using the browser's location services. The goal is to provide users with personalized recommendations to stay dry and comfortable during rainy days.

**Use Case: High UV Weather Warning (System Warning)**

* Actor: User
* Goal: To receive clothing suggestions based on a high UV index warning provided by the weather data provider.
* Preconditions:
  + The User has the weather app open in a web browser.
  + The User has enabled location services for the app.
* Postconditions:
  + The User receives clothing recommendations tailored to the current high UV index warning.

Flow of Events:

1. User Opens the Weather App
   * The User launches the weather application on their device.
2. System Retrieves Current Weather
   * The system automatically retrieves the current weather data for the User's location.
   * Weather parameters include temperature, humidity, UV index, and cloud cover.
3. System Displays High UV Warning
   * Upon retrieving the weather data, the system receives a high UV index warning from the weather data provider.
   * The User is notified prominently about the high UV warning on the app's interface.
4. User Requests Clothing Suggestions for High UV
   * Observing the high UV warning, the User indicates a desire for clothing suggestions suitable for high sun exposure.
   * This action could be a manual request or an automatic prompt from the system.
5. System Analyzes High UV Weather Conditions
   * The system analyzes the retrieved weather data specifically in relation to the high UV index warning.
   * Factors considered may include:
     + Intensity of UV rays (high, very high, extreme)
     + Duration of peak UV hours
     + Temperature and UV index correlation
6. System Provides High UV Clothing Recommendations
   * Based on the high UV warning analysis, the system suggests suitable clothing items for the User.
   * Recommendations may include:
     + Wide-brimmed hats or caps with neck flaps
     + Sunglasses with UV protection
     + Long-sleeved shirts with UV-blocking fabric
     + Lightweight, breathable clothing with UPF (Ultraviolet Protection Factor)
     + Sunscreen with high SPF (Sun Protection Factor)
7. User Views High UV Clothing Suggestions
   * The User sees the suggested clothing items displayed prominently on the app's interface.
   * Each item may have a brief description or image for reference.
8. User Saves or Acknowledges High UV Suggestions
   * The User can choose to save the suggested outfits for future reference.
   * Alternatively, the User may acknowledge the suggestions and proceed to dress accordingly.
9. Optional: Additional High UV Details
   * The system may offer additional details related to the high UV warning, such as:
     + Tips for applying sunscreen effectively.
     + Recommendations for seeking shade during peak UV hours.
     + Advice on staying hydrated under high sun exposure.
10. User Exits the App
    * After viewing the high UV clothing suggestions, the User can exit the weather app.

Alternative Flow:

* No High UV Warning Present:
  + If the User does not see any indication of a high UV warning in the weather details:
    - The system may prompt the User to confirm their request for high UV-specific suggestions.
      * If the User confirms:
        + Proceed to Step 6 for general high UV preparation suggestions.
      * If the User cancels:
        + End the use case.

Exceptional Flow:

* Error Retrieving High UV Warning:
  + If the system encounters an error in retrieving the high UV warning from the weather data provider:
    - The system informs the User of the issue.
    - The User may choose to:
      * Retry retrieving the high UV warning.
      * Check back later.
      * Proceed without high UV-specific clothing suggestions (if feasible).

This use case outlines the steps involved when a User receives a high UV index warning from the weather data provider through the weather app. The goal is to provide users with personalized recommendations to help them dress appropriately and protect themselves from high sun exposure.

**Use Case: Weather Update Based on Current Location (Using Zip Code)**

* Actor: User
* Goal: To receive the latest weather update based on the User's current location using the browser's location services or inputting a ZIP code.
* Preconditions:
  + The User has the weather app open in a web browser.
  + The User has either:
    - Enabled location services for the app to use their current location, OR
    - Manually entered a ZIP code for location data.
* Postconditions:
  + The User receives the latest weather update for the specified location.

Flow of Events:

1. User Opens the Weather App
   * The User navigates to the weather application in their web browser.
2. System Requests Location Information (Using Zip Code)
   * If the User chooses to input a ZIP code:
     + The system prompts the User to enter their ZIP code.
     + The User enters their ZIP code in the provided field.
3. System Retrieves Weather Data
   * The system fetches the current weather data for the User's location based on the provided ZIP code.
   * Weather parameters include temperature, humidity, wind speed, and current conditions.
4. System Displays Weather Update
   * The system presents the latest weather update on the app's interface.
   * The User can view details such as temperature, wind speed, humidity, and current weather conditions.
5. User Views Weather Details
   * The User reviews the weather information displayed on the app.
   * Details may include hourly forecasts, precipitation chances, and sunrise/sunset times.
6. Optional: Hourly or Daily Forecast
   * The system offers the option to view hourly or daily forecasts for the specified location.
     + If the User selects hourly forecast:
       - The system displays weather details for each hour of the day.
     + If the User selects daily forecast:
       - The system shows weather predictions for the upcoming days.
7. User Acknowledges Weather Update
   * The User acknowledges the displayed weather information and may choose to:
     + Proceed with plans based on the weather conditions.
     + Save the weather update for future reference.
     + Share the weather update through social media or messaging.
8. Optional: Weather Alerts
   * If there are any severe weather alerts for the specified location:
     + The system notifies the User of the alerts.
     + Details of the alert, such as type (e.g., thunderstorm, snowstorm) and severity, are provided.
9. User Exits the App
   * After reviewing the weather update, the User can exit the weather app.

Alternative Flow:

* Using Browser's Location Services:
  + If the User allows the app to use the browser's location services:
    - The system automatically retrieves the weather data for the User's current location.
    - Steps 3 to 9 are followed as described above.

Exceptional Flow:

* Error Retrieving Weather Data:
  + If the system encounters an error while retrieving weather data:
    - The system informs the User of the issue.
    - The User may choose to:
      * Retry entering the ZIP code.
      * Check internet connection and retry.
      * Proceed without the latest weather update (if feasible).

This use case outlines the steps involved when a User wants to receive the latest weather update based on their current location using the browser's location services or by manually entering a ZIP code. The goal is to provide users with up-to-date weather information to plan their activities accordingly.

**Use Case: Weather-Based Recommendations Considering Changing Conditions**

* Actor: User
* Goal: To receive clothing and activity recommendations based on dynamic weather conditions, considering changes such as rain stopping after a period.
* Preconditions:
  + The User has the weather app open in a web browser.
  + The User has either:
    - Enabled location services for the app to use their current location, OR
    - Manually entered a ZIP code for location data.
* Postconditions:
  + The User receives personalized recommendations based on the evolving weather conditions.

Flow of Events:

1. User Opens the Weather App
   * The User navigates to the weather application in their web browser.
2. System Requests Location Information (Using Zip Code)
   * If the User chooses to input a ZIP code:
     + The system prompts the User to enter their ZIP code.
     + The User enters their ZIP code in the provided field.
3. System Retrieves Current Weather Data
   * The system fetches the current weather data for the User's location based on the provided ZIP code.
   * Weather parameters include temperature, humidity, wind speed, and current conditions.
4. System Analyzes Weather Trends
   * The system analyzes the current weather data and trends to predict changes.
   * Factors considered include:
     + Current weather conditions (e.g., raining, sunny, cloudy)
     + Forecasted changes in weather (e.g., rain stopping, temperature rise)
     + Time of day (morning, afternoon, evening)
5. System Provides Recommendations Based on Dynamic Conditions
   * The system generates personalized recommendations considering the evolving weather conditions.
   * Recommendations may include:
     + Clothing suggestions:
       - Rain gear if rain is currently falling but expected to stop soon.
       - Layered clothing if the temperature is forecasted to rise later in the day.
       - Jackets or sweaters for cooler evenings following a warm day.
     + Activity suggestions:
       - Carry an umbrella if rain is expected to start later in the day.
       - Plan outdoor activities for the afternoon when rain is likely to stop.
       - Consider indoor activities if a sudden downpour is forecasted.
6. System Displays Recommendations
   * The system presents the tailored recommendations on the app's interface.
   * Users can view suggested clothing items, activity ideas, and any relevant tips.
7. User Reviews Recommendations
   * The User reviews the provided recommendations based on the dynamic weather conditions.
   * They can see the reasoning behind each suggestion, such as "Rain stopping by 2 PM, plan outdoor activities."
8. User Acknowledges and Customizes Recommendations
   * The User acknowledges the recommendations and may choose to:
     + Follow the suggested clothing and activity plans as presented.
     + Customize the recommendations based on personal preferences or additional knowledge.
     + Save the recommendations for future reference.
9. Optional: Real-Time Updates
   * If the weather conditions change significantly after the initial recommendations:
     + The system sends real-time updates to the User.
     + Notifications include revised suggestions based on the updated weather forecast.
10. User Exits the App
    * After reviewing the recommendations, the User can exit the weather app.

Alternative Flow:

* Using Browser's Location Services:
  + If the User allows the app to use the browser's location services:
    - The system automatically retrieves the weather data for the User's current location.
    - Steps 3 to 10 are followed as described above.

Exceptional Flow:

* Error Retrieving Weather Data:
  + If the system encounters an error while retrieving weather data:
    - The system informs the User of the issue.
    - The User may choose to:
      * Retry entering the ZIP code.
      * Check internet connection and retry.
      * Proceed without the latest weather update (if feasible).

This use case outlines the steps involved when a User wants to receive personalized recommendations based on dynamic weather conditions, considering changes such as rain stopping after a period. The goal is to provide users with tailored suggestions for clothing and activities that adapt to evolving weather trends throughout the day.

**Use Case: Weather-Based Recommendations with Provider Warnings**

* Actor: User
* Goal: To receive clothing and activity recommendations based on dynamic weather conditions, including warnings from the weather data provider.
* Preconditions:
  + The User has the weather app open in a web browser.
  + The User has either:
    - Enabled location services for the app to use their current location, OR
    - Manually entered a ZIP code for location data.
* Postconditions:
  + The User receives personalized recommendations based on the evolving weather conditions, with warnings from the weather data provider.

Flow of Events:

1. User Opens the Weather App
   * The User navigates to the weather application in their web browser.
2. System Requests Location Information (Using Zip Code)
   * If the User chooses to input a ZIP code:
     + The system prompts the User to enter their ZIP code.
     + The User enters their ZIP code in the provided field.
3. System Retrieves Current Weather Data
   * The system fetches the current weather data for the User's location based on the provided ZIP code.
   * Weather parameters include temperature, humidity, wind speed, and current conditions.
4. System Analyzes Weather Trends
   * The system analyzes the current weather data and trends to predict changes.
   * Factors considered include:
     + Current weather conditions (e.g., raining, sunny, cloudy)
     + Forecasted changes in weather (e.g., rain stopping, temperature rise)
     + Time of day (morning, afternoon, evening)
5. System Checks for Provider Warnings
   * The system retrieves any warnings or alerts provided by the weather data provider.
   * Warnings may include severe weather alerts, high UV index warnings, or other important advisories.
6. System Provides Recommendations Based on Dynamic Conditions and Warnings
   * The system generates personalized recommendations considering the evolving weather conditions and provider warnings.
   * Recommendations may include:
     + Clothing suggestions:
       - Rain gear if rain is currently falling but expected to stop soon.
       - Layered clothing if the temperature is forecasted to rise later in the day.
       - Jackets or sweaters for cooler evenings following a warm day.
     + Activity suggestions:
       - Carry an umbrella if rain is expected to start later in the day.
       - Plan outdoor activities for the afternoon when rain is likely to stop.
       - Consider indoor activities if severe weather alerts are issued.
7. System Displays Recommendations and Provider Warnings
   * The system presents the tailored recommendations along with any warnings from the weather data provider on the app's interface.
   * Users can view suggested clothing items, activity ideas, and important alerts.
8. User Reviews Recommendations and Warnings
   * The User reviews the provided recommendations and warnings based on the dynamic weather conditions.
   * They can see the reasoning behind each suggestion, such as "Rain stopping by 2 PM, plan outdoor activities."
   * Users also acknowledge any severe weather alerts or high UV index warnings.
9. User Acknowledges and Customizes Recommendations
   * The User acknowledges the recommendations and may choose to:
     + Follow the suggested clothing and activity plans as presented.
     + Customize the recommendations based on personal preferences or additional knowledge.
     + Save the recommendations and warnings for future reference.
10. Optional: Real-Time Updates on Warnings
    * If there are any updates or changes to the provider warnings:
      + The system sends real-time updates to the User.
      + Notifications include revised warnings and recommendations based on the updated weather forecast.
11. User Exits the App
    * After reviewing the recommendations and warnings, the User can exit the weather app.

Alternative Flow:

* Using Browser's Location Services:
  + If the User allows the app to use the browser's location services:
    - The system automatically retrieves the weather data for the User's current location.
    - Steps 3 to 11 are followed as described above.

Exceptional Flow:

* Error Retrieving Weather Data or Provider Warnings:
  + If the system encounters an error while retrieving weather data or provider warnings:
    - The system informs the User of the issue.
    - The User may choose to:
      * Retry entering the ZIP code.
      * Check internet connection and retry.
      * Proceed without the latest weather update and warnings (if feasible).

This use case outlines the steps involved when a User wants to receive personalized recommendations based on dynamic weather conditions, considering changes such as rain stopping after a period, along with warnings from the weather data provider. The goal is to provide users with tailored suggestions for clothing and activities that adapt to evolving weather trends while ensuring they are aware of any important alerts or advisories.

**Use Case: Trip Planning for a Future Location**

* Actor: User
* Goal: To receive weather information and recommendations for a future travel destination.
* Preconditions:
  + The User has the weather app open in a web browser.
  + The User specifies the future location and date of travel.
* Postconditions:
  + The User receives weather forecasts, clothing recommendations, and activity suggestions for the specified future location and date.

Flow of Events:

1. User Opens the Weather App
   * The User navigates to the weather application in their web browser.
2. User Specifies Future Travel Details
   * The User enters the destination city or location for their upcoming trip.
   * The User selects the date or range of dates for their travel.
3. System Retrieves Future Weather Forecast
   * The system fetches the weather forecast for the specified destination and travel dates.
   * Weather parameters include temperature, precipitation chances, wind speed, and general weather conditions.
4. System Analyzes Future Weather Trends
   * The system analyzes the future weather forecast to provide insights into weather patterns during the trip.
   * Factors considered include:
     + Average temperature for the time of year.
     + Likelihood of rain, snow, or other precipitation.
     + Wind conditions and potential variations throughout the day.
5. System Provides Clothing Recommendations
   * Based on the future weather forecast, the system suggests suitable clothing items for the User's trip.
   * Recommendations may include:
     + Light clothing for hot and sunny days.
     + Layers for variable temperatures.
     + Waterproof gear for rainy or snowy conditions.
     + Cold-weather attire for winter trips.
     + Sunscreen, hats, and sunglasses for sunny destinations.
6. System Offers Activity Suggestions
   * The system provides activity suggestions based on the forecasted weather conditions.
   * Suggestions may include:
     + Outdoor activities such as hiking, beach visits, or sightseeing for clear days.
     + Indoor attractions like museums, theaters, or shopping for rainy days.
     + Skiing, snowboarding, or winter sports for snowy destinations.
     + Recommendations for events or festivals happening during the travel dates.
7. System Displays Travel Weather Summary
   * The system presents a summary of the weather forecast, clothing recommendations, and activity suggestions on the app's interface.
   * Users can view a detailed breakdown of each day of their trip, including morning, afternoon, and evening weather.
8. User Reviews Trip Weather and Recommendations
   * The User reviews the provided weather forecast, clothing suggestions, and activity ideas for their upcoming trip.
   * They can see the expected weather conditions for each day, along with corresponding recommendations.
9. User Customizes Plans and Packing List
   * The User can customize their travel plans and packing list based on the provided recommendations.
   * They may choose to add or remove items based on personal preferences and activities planned.
10. User Saves Trip Itinerary
    * The User has the option to save the trip itinerary, including weather details, clothing recommendations, and activity suggestions.
    * This allows for easy reference and planning leading up to the trip.
11. Optional: Travel Alerts and Reminders
    * If there are any travel alerts or advisories for the destination:
      + The system notifies the User of important information.
      + Alerts may include flight delays, road closures, or local safety advisories.
12. User Exits the App
    * After reviewing and customizing their trip plans, the User can exit the weather app.

Alternative Flow:

* Multiple Destinations or Dates:
  + If the User plans to visit multiple destinations or has a flexible travel schedule:
    - The system allows the User to input multiple locations or date ranges.
    - Weather forecasts, clothing recommendations, and activity suggestions are provided for each specified destination or date.

Exceptional Flow:

* Error Retrieving Future Weather Data:
  + If the system encounters an error while fetching the future weather forecast:
    - The system informs the User of the issue.
    - The User may choose to:
      * Retry entering the destination and travel dates.
      * Check internet connection and retry.
      * Proceed with general travel planning without specific weather details (if feasible).

This use case outlines the steps involved when a User plans a trip to a future location and wants to receive personalized weather forecasts, clothing recommendations, and activity suggestions. The goal is to help users prepare for their upcoming travel by providing insights into expected weather conditions and tailored recommendations for a comfortable and enjoyable trip.