**Group: BUGBYTES**

**Assignment: Use Cases for App**

**Date: 2/22/2023**

**Class: IS445**

**Use Case: Rainy Weather**

* **Actor**: User
* **Goal**: To receive clothing suggestions based on current rainy weather conditions
* **Preconditions**:
  + The User has the weather app open on a web browser.
  + The User's location services are enabled.
* **Postconditions**:
  + The User receives clothing recommendations for the current rainy weather.

Flow of Events:

1. **User Opens the Weather App**
   * The User launches the weather application on their device.
2. **System Retrieves Current Rainy Weather**
   * The system automatically retrieves the current weather data for the User's location.
   * Weather parameters include rainfall intensity, chance of rain, and temperature.
3. **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.
4. **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
5. **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.
6. **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.
7. **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.
8. **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.
9. **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's location services are disabled:
    - The system prompts the User to enable location services.
    - The User enables location services, and the flow continues from step 2.

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 the rainy 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 describes the steps involved when a User wants to receive clothing suggestions specifically for rainy weather conditions through the weather app. It aims to provide users with tailored recommendations to stay dry and comfortable during rainy days.

**Use Case: High UV Weather**

* **Actor**: User
* **Goal**: To receive clothing suggestions based on current high UV index conditions
* **Preconditions**:
  + The User has the weather app open on a web browser.
  + The User's location services are enabled.
* **Postconditions**:
  + The User receives clothing recommendations for the current high UV index.

**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. **User Observes High UV Indication**
   * Upon viewing the weather details, the User notices that the UV index is currently high or forecasted to be high.
4. **User Requests Clothing Suggestions for High UV**
   * Recognizing the high UV index, the User indicates a desire for clothing suggestions suited for high sun exposure.
   * The User may have the option to manually request high UV-specific suggestions, or the system may prompt automatically.
5. **System Analyzes High UV Weather Conditions**
   * The system analyzes the retrieved weather data specifically for high UV index conditions.
   * 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 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 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, 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 Indicated**:
  + If the User does not see any indication of high UV 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 Data**:
  + If the system encounters an error in retrieving high UV-specific weather information:
    - The system informs the User of the issue.
    - The User may choose to:
      * Retry retrieving high UV data.
      * Check back later.
      * Proceed without high UV-specific clothing suggestions (if feasible).

These use cases describe the steps involved when a User wants to receive clothing suggestions based on rainy weather conditions or high UV index conditions through the weather app. Each scenario aims to provide users with tailored recommendations to help them dress appropriately and stay comfortable in specific weather conditions.

**Use Case: Snowy Weather**

* **Actor**: User
* **Goal**: To receive clothing suggestions based on current snowy weather conditions
* **Preconditions**:
  + The User has the weather app open on a web browser.
  + The User's location services are enabled.
* **Postconditions**:
  + The User receives clothing recommendations for the current snowy weather.

**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, wind speed, and precipitation.
3. **User Sees Snow Indication**
   * Upon viewing the weather details, the User notices that it is currently snowing, or snow is forecasted.
4. **User Requests Clothing Suggestions**
   * Recognizing the snowy weather, the User indicates a desire for clothing suggestions tailored to snow.
   * The User may have the option to manually request snow-specific suggestions, or the system may prompt automatically.
5. **System Analyzes Snowy Weather Conditions**
   * The system analyzes the retrieved weather data specifically for snowy conditions.
   * Factors considered may include:
     + Intensity of snowfall (light, moderate, heavy)
     + Accumulation of snow
     + Wind chill factor
6. **System Provides Snowy Weather Clothing Recommendations**
   * Based on the snowy weather analysis, the system suggests suitable clothing items for the User.
   * Recommendations may include:
     + Heavy winter coats or parkas.
     + Insulated waterproof boots.
     + Thermal gloves or mittens.
     + Snow pants or insulated trousers.
     + Warm hats or beanies.
7. **User Views Snowy Weather Clothing Suggestions**
   * The User sees the suggested clothing items displayed on the app's interface.
   * Each item may have a brief description or image for reference.
8. **User Saves or Acknowledges Snowy Weather 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 Snowy Weather Details**
   * The system may offer additional details, such as:
     + Tips for layering clothing effectively in the snow.
     + Suggestions for proper footwear to prevent slipping.
     + Recommendations for carrying snow gear (e.g., shovels, ice scrapers)
10. **User Exits the App**
    * After viewing the snowy weather clothing suggestions, the User can exit the weather app.

Alternative Flow:

* **No Snow Indicated**:
  + If the User does not see any indication of snow in the weather details:
    - The system may prompt the User to confirm their request for snow-specific suggestions.
    - If the User confirms:
      * Proceed to Step 6 for general snowy weather preparation suggestions.
    - If the User cancels:
      * End the use case.

Exceptional Flow:

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

These use cases describe the steps involved when a User wants to receive clothing suggestions based on snowy weather conditions through the weather app. The system provides tailored recommendations to help users stay warm, dry, and comfortable in snowy environments.

**Use Case: Very Hot Weather**

* **Actor**: User
* **Goal**: To receive clothing suggestions based on current very hot weather conditions
* **Preconditions**:
  + The User has the weather app open on a web browser.
  + The User's location services are enabled.
* **Postconditions**:
  + The User receives clothing recommendations for the current very hot weather.

**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. **User Sees Very Hot Weather Indication**
   * Upon viewing the weather details, the User notices that the temperature is very high, or the UV index indicates extreme sun exposure.
4. **User Requests Clothing Suggestions for Very Hot Weather**
   * Recognizing the very hot weather, the User indicates a desire for clothing suggestions suited for extreme heat.
   * The User may have the option to manually request very hot weather-specific suggestions, or the system may prompt automatically.
5. **System Analyzes Very Hot Weather Conditions**
   * The system analyzes the retrieved weather data specifically for very hot conditions.
   * Factors considered may include:
     + High-temperature range. (e.g., above 90°F or 32°C)
     + High humidity levels.
     + Intense sunlight with a high UV index.
6. **System Provides Very Hot Weather Clothing Recommendations**
   * Based on the very hot weather analysis, the system suggests suitable clothing items for the User.
   * Recommendations may include:
     + Lightweight, breathable fabrics. (e.g., cotton, linen)
     + Loose-fitting, light-colored clothing.
     + Wide-brimmed hats or caps for sun protection.
     + Sunglasses with UV protection.
     + Sandals or breathable shoes.
7. **User Views Very Hot Weather Clothing Suggestions**
   * The User sees the suggested clothing items displayed on the app's interface.
   * Each item may have a brief description or image for reference.
8. **User Saves or Acknowledges Very Hot Weather 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 Very Hot Weather Details**
   * The system may offer additional details, such as:
     + Tips for staying cool in extreme heat.
     + Recommendations for carrying water or staying hydrated.
     + Advice on seeking shade during peak sun hours.
10. **User Exits the App**
    * After viewing the very hot weather clothing suggestions, the User can exit the weather app.

Alternative Flow:

* **No Very Hot Weather Indicated**:
  + If the User does not see any indication of very hot weather in the weather details:
    - The system may prompt the User to confirm their request for very hot weather-specific suggestions.
    - If the User confirms:
      * Proceed to Step 6 for general very hot weather preparation suggestions.
    - If the User cancels:
      * End the use case.

Exceptional Flow:

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

This use case describes the steps involved when a User wants to receive clothing suggestions based on very hot weather conditions through the weather app. The system provides tailored recommendations to help users stay cool, comfortable, and protected from the sun's intense rays in extreme heat.

**Use Case: Very Cold Weather**

* **Actor**: User
* **Goal**: To receive clothing suggestions based on current very cold weather conditions
* **Preconditions**:
  + The User has the weather app open on a web browser.
  + The User's location services are enabled.
* **Postconditions**:
  + The User receives clothing recommendations for the current very cold weather.

**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, wind chill factor, and precipitation.
3. **User Sees Very Cold Weather Indication**
   * Upon viewing the weather details, the User notices that the temperature is very low, or the wind chill factor indicates extreme cold.
4. **User Requests Clothing Suggestions for Very Cold Weather**
   * Recognizing the very cold weather, the User indicates a desire for clothing suggestions suited for extreme cold.
   * The User may have the option to manually request very cold weather-specific suggestions, or the system may prompt automatically.
5. **System Analyzes Very Cold Weather Conditions**
   * The system analyzes the retrieved weather data specifically for very cold conditions.
   * Factors considered may include:
     + Low-temperature range. (e.g., below 32°F or 0°C)
     + Wind chill factor.
     + Possibility of snow or icy conditions.
6. **System Provides Very Cold Weather Clothing Recommendations**
   * Based on the very cold weather analysis, the system suggests suitable clothing items for the User.
   * Recommendations may include:
     + Heavy winter coats or parkas.
     + Insulated thermal layers. (e.g., long underwear)
     + Wool socks and waterproof boots.
     + Thermal gloves or mittens.
     + Earmuffs or warm hats.
7. **User Views Very Cold Weather Clothing Suggestions**
   * The User sees the suggested clothing items displayed on the app's interface.
   * Each item may have a brief description or image for reference.
8. **User Saves or Acknowledges Very Cold Weather 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 Very Cold Weather Details**
   * The system may offer additional details, such as:
     + Tips for layering clothing effectively in extreme cold.
     + Recommendations for hand warmers or foot warmers
     + Advice on protecting exposed skin from frostbite.
10. **User Exits the App**
    * After viewing the very cold weather clothing suggestions, the User can exit the weather app.

Alternative Flow:

* **No Very Cold Weather Indicated**:
  + If the User does not see any indication of very cold weather in the weather details:
    - The system may prompt the User to confirm their request for very cold weather-specific suggestions.
    - If the User confirms:
      * Proceed to Step 6 for general very cold weather preparation suggestions.
    - If the User cancels:
      * End the use case.

Exceptional Flow:

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

This use case describes the steps involved when a User wants to receive clothing suggestions based on very cold weather conditions through the weather app. The system provides tailored recommendations to help users stay warm, comfortable, and protected from extreme cold temperatures and harsh winter conditions.

**Use Case: 75-degree Weather**

* **Actor**: User
* **Goal**: To receive clothing suggestions based on current 75-degree weather conditions
* **Preconditions**:
  + The User has the weather app open on a web browser.
  + The User's location services are enabled.
* **Postconditions**:
  + The User receives clothing recommendations for the current 75-degree weather.

**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, and wind speed.
3. **User Sees 75-Degree Weather Indication**
   * Upon viewing the weather details, the User notices that the temperature is around 75 degrees Fahrenheit (24 degrees Celsius).
4. **User Requests Clothing Suggestions for 75-Degree Weather**
   * Recognizing the pleasant 75-degree weather, the User indicates a desire for clothing suggestions suited for this temperature.
   * The User may have the option to manually request suggestions for 75-degree weather, or the system may prompt automatically.
5. **System Analyzes 75-Degree Weather Conditions**
   * The system analyzes the retrieved weather data specifically for 75-degree conditions.
   * Factors considered may include:
     + Moderate temperature range
     + Humidity levels
     + Wind speed for comfort
6. **System Provides 75-Degree Weather Clothing Recommendations**
   * Based on the 75-degree weather analysis, the system suggests suitable clothing items for the User.
   * Recommendations may include:
     + Light, breathable tops (e.g., t-shirts, blouses)
     + Shorts or skirts for lower body comfort
     + Casual dresses or shirts
     + Sneakers or comfortable shoes
7. **User Views 75-Degree Weather Clothing Suggestions**
   * The User sees the suggested clothing items displayed on the app's interface.
   * Each item may have a brief description or image for reference.
8. **User Saves or Acknowledges 75-Degree Weather 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 75-Degree Weather Details**
   * The system may offer additional details, such as:
     + Tips for staying comfortable in mild weather
     + Suggestions for light accessories (e.g., sunglasses, hats)
     + Advice on sunscreen application for sun protection
10. **User Exits the App**
    * After viewing the 75-degree weather clothing suggestions, the User can exit the weather app.

Alternative Flow:

* **No 75-Degree Weather Indicated**:
  + If the User does not see any indication of 75-degree weather in the weather details:
    - The system may prompt the User to confirm their request for 75-degree weather-specific suggestions.
    - If the User confirms:
      * Proceed to Step 6 for general 75-degree weather preparation suggestions.
    - If the User cancels:
      * End the use case.

Exceptional Flow:

* **Error Retrieving 75-Degree Weather Data**:
  + If the system encounters an error in retrieving 75-degree weather-specific information:
    - The system informs the User of the issue.
    - The User may choose to:
      * Retry retrieving 75-degree weather data.
      * Check back later.
      * Proceed without 75-degree weather-specific clothing suggestions (if feasible).

This use case describes the steps involved when a User wants to receive clothing suggestions based on 75-degree weather conditions through the weather app. The system provides tailored recommendations to help users stay comfortable, stylish, and appropriately dressed for mild and pleasant temperatures.

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