Use Cases

for

Twitter Map

**Version 1.03**

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1. **Guidance for Use Case Template**

Document each use case using the template shown in the Appendix. This section provides a description of each section in the use case template.

1. **Use Case Identification**

## Use Case ID

Give each use case a unique integer sequence number identifier. Alternatively, use a hierarchical form: X.Y. Related use cases can be grouped in the hierarchy.

## Use Case Name

State a concise, results-oriented name for the use case. These reflect the tasks the user needs to be able to accomplish using the system. Include an action verb and a noun. Some examples:

* View part number information.
* Manually mark hypertext source and establish link to target.
* Place an order for a CD with the updated software version.

## Use Case History

### Created By

Supply the name of the person who initially documented this use case.

### Date Created

Enter the date on which the use case was initially documented.

### Last Updated By

Supply the name of the person who performed the most recent update to the use case description.

### Date Last Updated

Enter the date on which the use case was most recently updated.

1. **Use Case Definition**

## Actors

An actor is a person or other entity external to the software system being specified who interacts with the system and performs use cases to accomplish tasks. Different actors often correspond to different user classes, or roles, identified from the customer community that will use the product. Name the actor that will be initiating this use case and any other actors who will participate in completing the use case.

## Trigger

Identify the event that initiates the use case. This could be an external business event or system event that causes the use case to begin, or it could be the first step in the normal flow.

## Description

Provide a brief description of the reason for and outcome of this use case, or a high-level description of the sequence of actions and the outcome of executing the use case.

## Preconditions

List any activities that must take place, or any conditions that must be true, before the use case can be started. Number each precondition. Examples:

1. User’s identity has been authenticated.
2. User’s computer has sufficient free memory available to launch task.

## Postconditions

Describe the state of the system at the conclusion of the use case execution. Number each postcondition. Examples:

1. Document contains only valid SGML tags.
2. Price of item in database has been updated with new value.

## Normal Flow

Provide a detailed description of the user actions and system responses that will take place during execution of the use case under normal, expected conditions. This dialog sequence will ultimately lead to accomplishing the goal stated in the use case name and description. This description may be written as an answer to the hypothetical question, “How do I <accomplish the task stated in the use case name>?” This is best done as a numbered list of actions performed by the actor, alternating with responses provided by the system. The normal flow is numbered “X.0”, where “X” is the Use Case ID.

## Alternative Flows

Document other, legitimate usage scenarios that can take place within this use case separately in this section. State the alternative flow, and describe any differences in the sequence of steps that take place. Number each alternative flow in the form “X.Y”, where “X” is the Use Case ID and Y is a sequence number for the alternative flow. For example, “5.3” would indicate the third alternative flow for use case number 5.

## Exceptions

Describe any anticipated error conditions that could occur during execution of the use case, and define how the system is to respond to those conditions. Also, describe how the system is to respond if the use case execution fails for some unanticipated reason. If the use case results in a durable state change in a database or the outside world, state whether the change is rolled back, completed correctly, partially completed with a known state, or left in an undetermined state as a result of the exception. Number each alternative flow in the form “X.Y.E.Z”, where “X” is the Use Case ID, Y indicates the normal (0) or alternative (>0) flow during which this exception could take place, “E” indicates an exception, and “Z” is a sequence number for the exceptions. For example “5.0.E.2” would indicate the second exception for the normal flow for use case number 5.

## Includes

List any other use cases that are included (“called”) by this use case. Common functionality that appears in multiple use cases can be split out into a separate use case that is included by the ones that need that common functionality.

## Priority

Indicate the relative priority of implementing the functionality required to allow this use case to be executed. The priority scheme used must be the same as that used in the software requirements specification.

## Frequency of Use

Estimate the number of times this use case will be performed by the actors per some appropriate unit of time.

## Business Rules

List any business rules that influence this use case.

## Special Requirements

Identify any additional requirements, such as nonfunctional requirements, for the use case that may need to be addressed during design or implementation. These may include performance requirements or other quality attributes.

## Assumptions

List any assumptions that were made in the analysis that led to accepting this use case into the product description and writing the use case description.

## Notes and Issues

List any additional comments about this use case or any remaining open issues or TBDs (To Be Determined) that must be resolved. Identify who will resolve each issue, the due date, and what the resolution ultimately is.

Use Case List

|  |  |  |
| --- | --- | --- |
| ***ID*** | ***Primary Actor*** | ***Use Case Title*** |
| 1 | User | Log in |
| 2 | User | Browse world map |
| 3 | User | Search for trends from a specific city |
| 4 | User | “Favorite” a location, adding it to the user’s personal map |
| 5 | User | List the most popular trends of the day from a specific location |
| 6 | User | View tweets related to a specific trend |

Use Case 1

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | 1 | | |
| Use Case Name: | Log in | | |
| Created By: | Kishan Patel | Last Updated By: | Nicholas Mauro |
| Date Created: | 11.01.2016 | Date Last Updated: | 11.30.2016 |

|  |  |
| --- | --- |
| Actors: | User |
| Description: | The user logs in using their registered username and password, viewing their customized trend map with pins over their saved locations. |
| Trigger: | User loads website for first time. |
| Preconditions: | None |
| Postconditions: | Saved values to specific to user have been retrieved from database. |
| Normal Flow: | 1.0 - User enters website  1.1 - User enters credentials  1.2 - User retrieves saved locations |
| Alternative Flows: | 1.0 - User enters website  1.1 - User registers for an account  1.2 - User logs in  1.3 - User retrieves saved locations |
| Exceptions: | 1.0 - Invalid username or password |
| Includes: |  |
| Priority: | High priority |
| Frequency of Use: | Estimate no more than once per visit |
| Business Rules: |  |
| Special Requirements: | User must have registered for an account |
| Assumptions: |  |
| Notes and Issues: |  |

Use Case 2

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | 2 | | |
| Use Case Name: | Browse world map | | |
| Created By: | Juyuan Ding | Last Updated By: | Nicholas Mauro |
| Date Created: | 11.01.2016 | Date Last Updated: | 11.30.2016 |

|  |  |
| --- | --- |
| Actors: | User |
| Description: | When the user enters the web app, they will be able to zoom and pan an interactive world map with pins appearing over desired locations. User can then expand the pins to view the trending topics for that location. |
| Trigger: | User enters the website |
| Preconditions: | User has logged in.  User has been authenticated.  User has a stable internet connection.  User has system reqs to run webapp. |
| Postconditions: | User enters the website and sees trends |
| Normal Flow: | 2.0 - User enters website  2.1 - User expands pin(s) to see trend(s) |
| Alternative Flows: |  |
| Exceptions: |  |
| Includes: | 3. Search for trends from a specific city  4. “Favorite” a location, adding it to the user’s personal map  5. List the most popular trends of the day from a specific location  6. View tweets related to a specific trend |
| Priority: | High priority |
| Frequency of Use: | Whenever the user enters the website |
| Business Rules: |  |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

Use Case 3

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | 3 | | |
| Use Case Name: | Search for trends from a specific city | | |
| Created By: | Kishan Patel | Last Updated By: | Nicholas Mauro |
| Date Created: | 10.04.2016 | Date Last Updated: | 11.30.2016 |

|  |  |
| --- | --- |
| Actors: | User |
| Description: | The user can search for and locate a desired city to display a pin over it, which can then be expanded to view relative trending topics. |
| Trigger: | User goes to website, enters name of a city in search bar. |
| Preconditions: | User has logged in.  User has been authenticated.  User has a stable internet connection.  User has system reqs to run webapp. |
| Postconditions: | User views pins of specific region/country.  (optional) User expands pin to see trends. |
| Normal Flow: | 3.0 - User enters website  3.1 - User zooms and pans to region of interest  3.2 - User expands pin(s) to see trend(s) |
| Alternative Flows: | 3.0 - User enters website  3.1 - Instead of zooming in, user can click on certain city eg. New York  3.2 - User expands pins to see trends |
| Exceptions: | 3.0.E.0 There is no trend to show on a specific city |
| Includes: | 4. “Favorite” a location, adding it to the user’s personal map  5. List the most popular trends of the day from a specific location  6. View tweets related to a specific trend |
| Priority: | High priority |
| Frequency of Use: | Estimate no more than once per minute |
| Business Rules: |  |
| Special Requirements: | Each trend must be tagged with its appropriate city |
| Assumptions: |  |
| Notes and Issues: | Some trends might apply to more than one city |

Use Case 4

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | 4 | | |
| Use Case Name: | “Favorite” a location, adding it to the user’s personal map | | |
| Created By: | Juyuan Ding | Last Updated By: | Nicholas Mauro |
| Date Created: | 11.01.2016 | Date Last Updated: | 11.30.2016 |

|  |  |
| --- | --- |
| Actors: | User |
| Description: | Each user will have a personalized map of locations in which trending topics are tracked. A user can select any group of locations to appear on their map. |
| Trigger: | User goes to website and selects a location |
| Preconditions: | User has logged in.  User has been authenticated.  User has a stable internet connection.  User has system reqs to run webapp. |
| Postconditions: | User has a city to saved to their map |
| Normal Flow: | 4.0 - User enters website  4.1 - User searches for a location  4.2 - User “favorites” a location, adding it to their map |
| Alternative Flows: |  |
| Exceptions: | 4.0.E.0 the location is already saved |
| Includes: | 2. Browse world map  3. Search for trends from a specific city |
| Priority: | Medium priority |
| Frequency of Use: | Every time the user searches for a location |
| Business Rules: |  |
| Special Requirements: | User has logged in |
| Assumptions: |  |
| Notes and Issues: |  |

Use Case 5

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | 5 | | |
| Use Case Name: | List the most popular trends of the day from a specific location | | |
| Created By: | Juyuan Ding | Last Updated By: | Nicholas Mauro |
| Date Created: | 11.01.2016 | Date Last Updated: | 11.30.2016 |

|  |  |
| --- | --- |
| Actors: | User |
| Description: | The user can list the top 10 trends of a specific location on the right of the web page by clicking on the desired location. |
| Trigger: | User goes to website and selects a location |
| Preconditions: | User has logged in.  User has been authenticated.  User has a stable internet connection.  User has system reqs to run webapp. |
| Postconditions: | List the popular trends of a location to user |
| Normal Flow: | 5.0 - User enters website  5.1 - User searches for a location  5.2 - Popular trends are shown for that location |
| Alternative Flows: |  |
| Exceptions: |  |
| Includes: | 2. Browse world map  3. Search for trends from a specific city |
| Priority: | Medium priority |
| Frequency of Use: | Every time the user searches for or selects a location |
| Business Rules: |  |
| Special Requirements: | User has logged in |
| Assumptions: |  |
| Notes and Issues: |  |

Use Case 6

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | 6 | | |
| Use Case Name: | View tweets related to a specific trend | | |
| Created By: | Nicholas Mauro | Last Updated By: | Nicholas Mauro |
| Date Created: | 11.30.2016 | Date Last Updated: | 11.30.2016 |

|  |  |
| --- | --- |
| Actors: | User |
| Description: | When a user views popular trends of a specific location, they can then click on the trend to view tweets based on that trend. |
| Trigger: | User clicks a trend after clicking a location |
| Preconditions: | None |
| Postconditions: | Saved values to specific to user have been retrieved from database. |
| Normal Flow: | 6.0 - User enters website  6.1 - User searches for a location  6.2 - User retrieves top trends for that location  6.3 - User selects a specific trend |
| Alternative Flows: | 6.0 - User enters website  6.1 - User registers for an account  6.2 - User logs in  6.3 - User retrieves saved locations  6.4 - User retrieves top trends for that location  6.5 - User selects a specific trend |
| Exceptions: |  |
| Includes: |  |
| Priority: | High priority |
| Frequency of Use: | Several times per visit |
| Business Rules: |  |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| Juyuan Ding | 11.01.2016 | Added 6 more use cases | 1.01 |
| Kishan Patel | 11.01.2016 | Added “User logs in” use case (8 total) | 1.02 |
| Nicholas Mauro | 11.30.2016 | Updated use cases to fit twitter integration | 1.03 |