

# **Software Requirements Specification**

Native American Artifact Collector Club Catalog Web-based  
Software

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**VERSION 1.0**

November 24, 2015

## i. Document Description

<b>Document title</b>	<b>User Requirements Specification</b>
<b>Version</b>	Version 1.0
<b>Project</b>	Native American artifact collector club catalog web-based software
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<b>Notes</b>	Nova Southeastern University College of Engineering & Computing Master of Science in Computer Science

## ii. Revision History

Date	Description	Author	Comments

### iii.Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

Signature	Printed Name	Title	Date
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	Dr. Caroline Budwell	Professor, CISC 682	

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## **2 Introduction**

This section gives a description of the project scope and an overview of the SRS document. The purpose of this document is also outlined, along with the provision of a glossary with a list of abbreviations and definitions.

### **2.1 Purpose**

This document aims to give a detailed description of the requirements for the Native American artifact collector club catalog web-based software (NAACC Artifact E-Catalog). It will illustrate the purpose and the complete declaration for the development of the software. The primary intent of this document is for the client's approval and for the development of the software.

### **2.2 Scope**

The scope of this project is to develop a web-based software for the Native American Artifact collector club, which will allow them to display their Native American artifacts along with associated information. The software shall give each club member the ability to:

- Gain access by providing a valid pair of authentication credentials.
- Add new artifacts to the artifact catalog.
- Manage and view cataloged artifacts.
- Manage and coordinate artifact trips by virtue of a calendar.
- Post comments in general or artifact specific chat board discussions.
- Receive notifications of recent catalog additions and artifact sale.

The software shall make provisions for user management and basic software monitoring tasks by an administrator, who has complete control of the software.

## 2.3 Glossary

Term	Definition
<b>Accepted trip</b>	A trip that a particular member has accepted an associated trip request for.
<b>Administrator</b>	A user with an administrator role.
<b>Administrator role</b>	See section 2.3.3
<b>Artifact</b>	An entry for an artifact that has specification attributes and one or more pictures.
<b>Artifact catalog component</b>	See section 2.2.1.
<b>Artifact chat board</b>	Chat board where artifact specific comments can be made.
<b>Artifact map</b>	A geographic map pin pointing the location that an artifact was found.
<b>Authentication component</b>	See section 2.2.5.
<b>Basic statistics monitoring component</b>	See section 2.2.7
<b>CAPTCHA</b>	An acronym for "Completely Automated Public Turing test to tell Computers and Humans Apart") is a type of challenge-response test used in computing to determine whether or not the user is human.
<b>Chat board</b>	A discussion forum. Also see section 2.2.3.
<b>Chat board component</b>	See section 2.2.3.
<b>Chat board topic</b>	A discussion topic for a chat board.
<b>Concurrent users</b>	Users using the software within a predefined period of time.
<b>Full user</b>	Refers to an administrator or a member.
<b>General chat board</b>	Chat board where general comments can be made.
<b>GIF</b>	An image file type.
<b>Guest</b>	A user with a guest role.



<b>Guest role</b>	See section 2.3.1
<b>JPEG</b>	An image file type.
<b>Member</b>	A user with a member role.
<b>Member role</b>	See section 2.3.2
<b>NAACC Artifact E-Catalog</b>	Native American artifact collector club catalog web-based software.
<b>Non-user</b>	A person who does not have a user account with the software.
<b>Notification method</b>	Notification method options shall be text message, email, Facebook wall post, Twitter status message and RSS feed.
<b>Object-Oriented approach</b>	A programming paradigm based on the concept of "objects", which are data structures that contain data, in the form of fields, often known as attributes.
<b>PNG</b>	An image file type.
<b>Profile attributes</b>	Synonym for <i>user profile attributes</i>
<b>Read-only mode</b>	Displayed in a format to allow for only viewing of data.
<b>Read/write mode</b>	Displayed in a format to allow viewing and modification of data.
<b>Recurring frequency</b>	Daily, weekly, bi-weekly, monthly or yearly.
<b>Recurring trip</b>	A trip that recurs at a particular recurring frequency.
<b>Software</b>	The Native American artifact collector club catalog web-based software that is to be developed.
<b>Specification attributes</b>	The attributes for an artifact. Which includes: name, type, size, material, shape, flaking, color, other characteristics and location found.
<b>SRS</b>	Software Requirements Specification.
<b>Trip</b>	A trip is an event where two or more club members go to a location to look for artifacts.
<b>Trip</b>	A trip entry with associated trip attributes.

<b>Trip attributes</b>	Attributes that specify a trip. Should include: date, time, destination and notes.
<b>Trip calendar component</b>	See section 2.2.2.
<b>Trip invitee</b>	A recipient of a Trip request.
<b>Trip request</b>	An invitation to accept or decline to attend a trip. Sent to one or more member.
<b>Trip search criteria</b>	Terms for one or more trip attributes to search by. Includes one or a combination of date and coordinating member.
<b>User</b>	A person who as a user account and interacts with the software.
<b>User account</b>	A collection of information that allows authentication to the software. Each account also has associated access credentials.
<b>User account attributes</b>	Data that make up the collection of information for a user account.
<b>User account request</b>	A request by a non-user for a user account.
<b>User account request status</b>	The status of a user account request. The status can either be: pending, approved or disapproved.
<b>User management component</b>	See section 2.2.4.
<b>User preferences component</b>	See section 2.2.6
<b>User profile</b>	A collection of user profile attributes associated with a user.
<b>User profile attributes</b>	Personal information for a user, which includes: address, phone number, email address, emergency contact, an optional autobiography, an optional picture and optional interests.
<b>Web-based</b>	Used of the internet via web browser.

## **3 Overall Description**

### **3.1 Product Perspective**

The Native American artifact collector club catalog web-based software is a new, self-contained product intended to be accessed via a web browser.

### **3.2 Product Features**

The following list offers a brief outline and description of the NAACC Artifact E-Catalog software features:

#### **3.2.1 Artifact catalog component**

The artifact catalog component allows club members to add artifacts to the catalog and, view and manage cataloged artifacts.

#### **3.2.2 Trip calendar component**

The trip calendar component allows club members to coordinate trips for finding artifacts.

#### **3.2.3 Chat board component**

The chat board component allows club members to participate in general and artifact specific discussions by means of textual comments.

#### **3.2.4 User management component**

The user management component handles the user account requisition and approval process. Most importantly, this component gives the administrators of the software the ability to manage all the user accounts belonging to the users of the software.

#### **3.2.5 Authentication component**

The authentication component allows only users with valid credentials to access the software. This component also assists users with password recovery and modification.

### **3.2.6 User preferences component**

The user preferences component allows for the creation and management of member user profiles, and provides the mechanism for members to specify other software preferences.

### **3.2.7 Basic software statistic component**

The basic software statistic component allows the administrators to view basic usage, error and user behavior data.

## **3.3 User Characteristics**

The following roles will exist in the NAACC Artifact E-Catalog software:

### **3.3.1 Guest role**

A guest user role is assign to a user of the software who is waiting for his/her user account request to be approve or disapproved by an administrator. The guest user role gives only temporary view access privilege to:

- Artifact catalog listing
- An artifact
- Chat boards
- Chat board comments

### **3.3.2 Member role**

A member user role is assign to a user of the software whose user account request has been approved by an administrator.

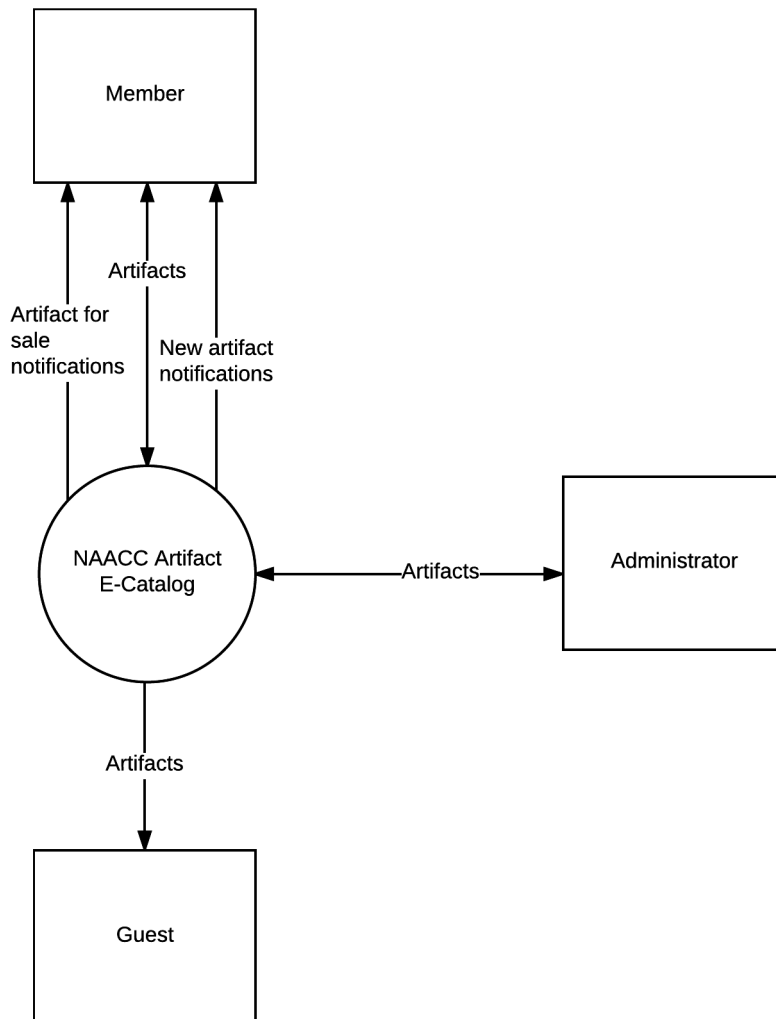
### **3.3.3 Administrator role**

An administrator user role is assign to a user of the software shall have the ability to carryout software administration tasks. A user with the administrator user role has complete control of the software and its components.

### 3.4 Software Context

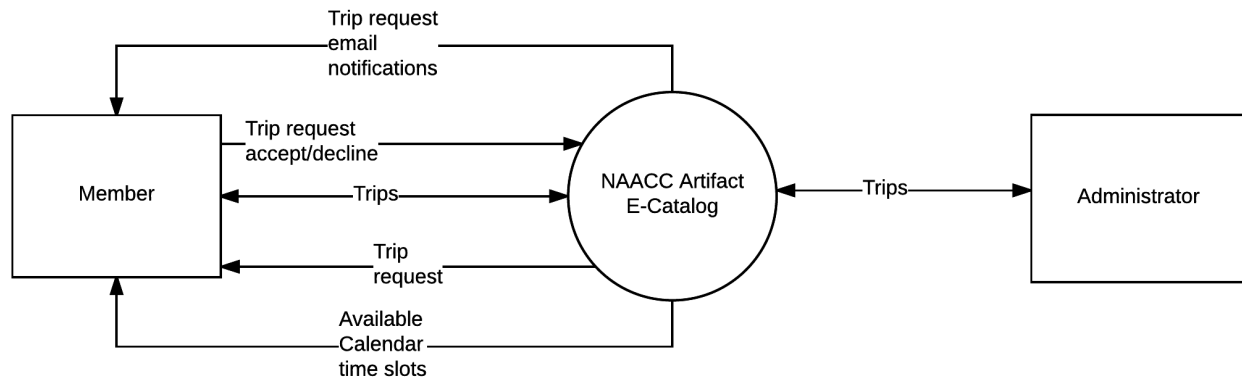
#### 3.4.1 Artifact catalog component context

Context diagram outlining the context of the artifact catalog component portion of the software.



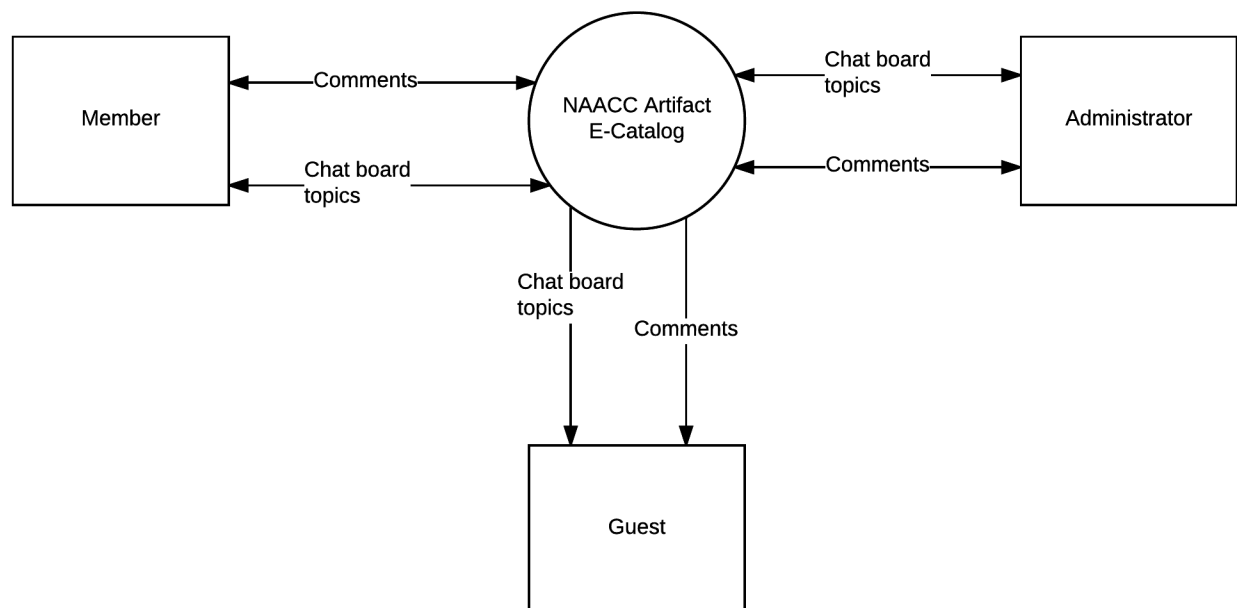
### 3.4.2 Trip calendar component context

Context diagram outlining the context of the trip calendar component portion of the software.



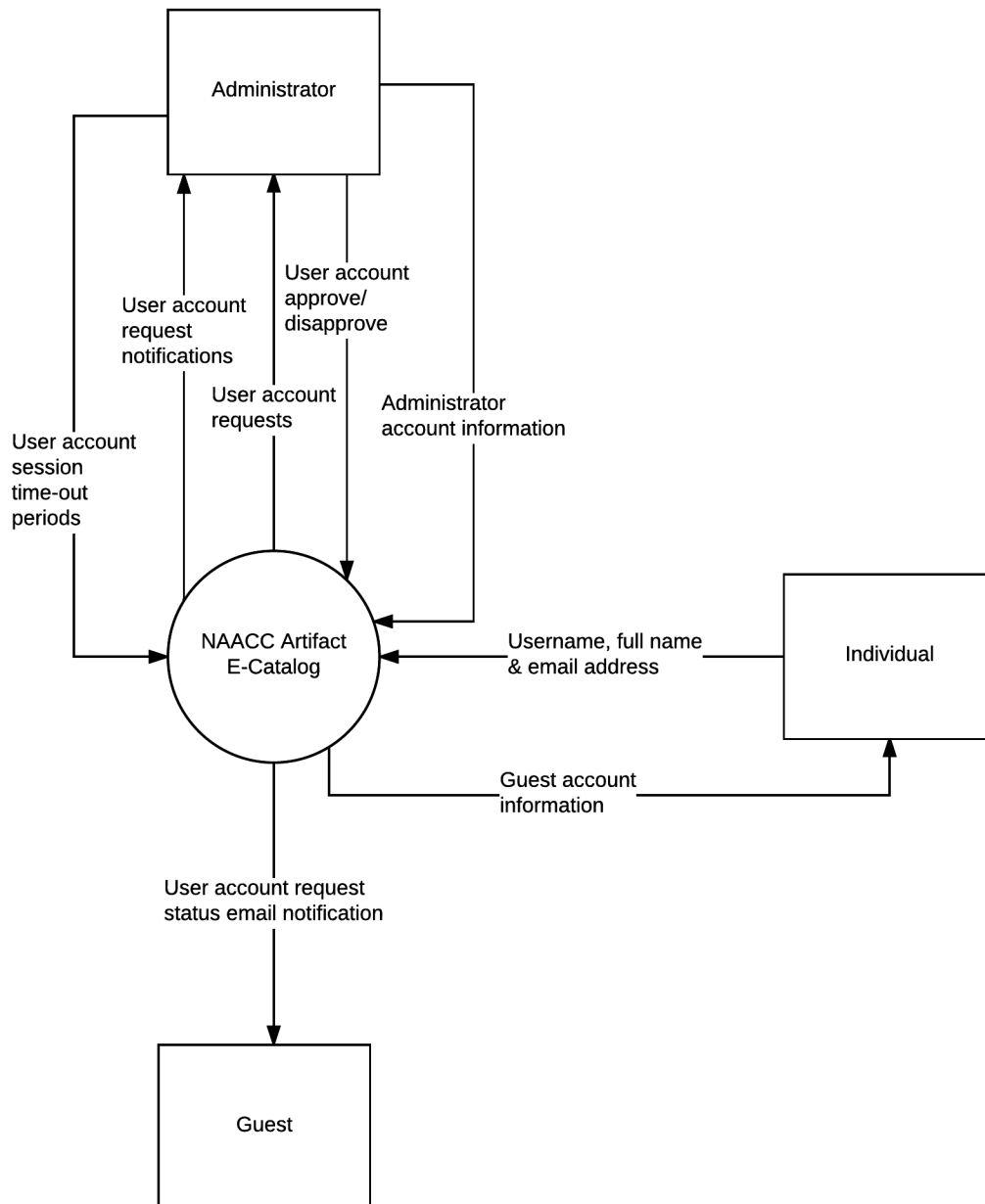
### 3.4.3 Chat board component context

Context diagram outlining the context of the chat board component portion of the software.



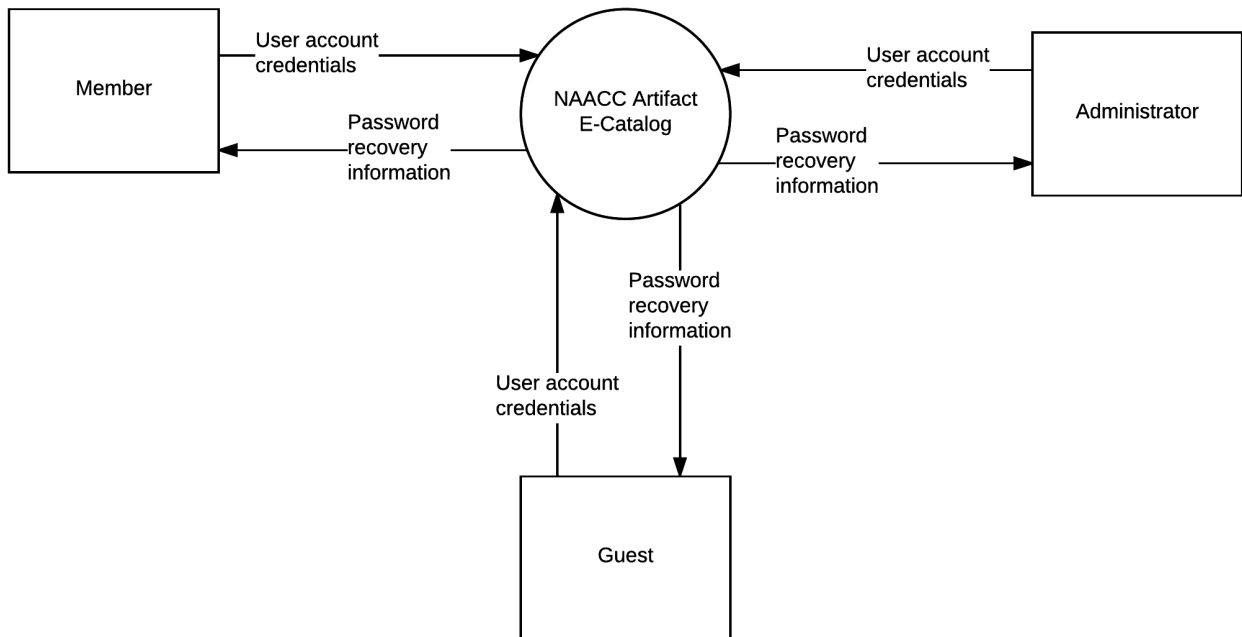
### 3.4.4 User management component context

Context diagram outlining the context of the user management component portion of the software.



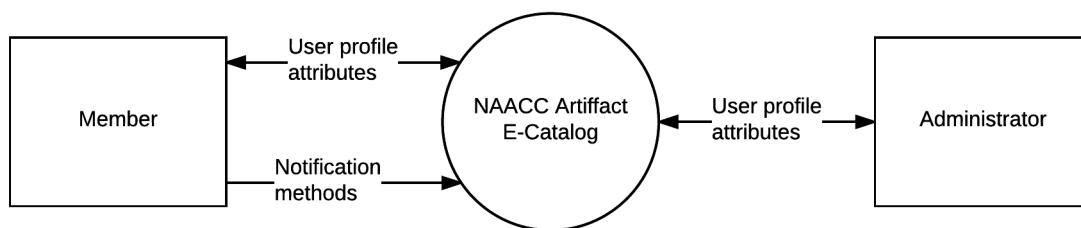
### 3.4.5 Authentication component context

Context diagram outlining the context of the authentication component portion of the software.



### 3.4.6 User preferences component context

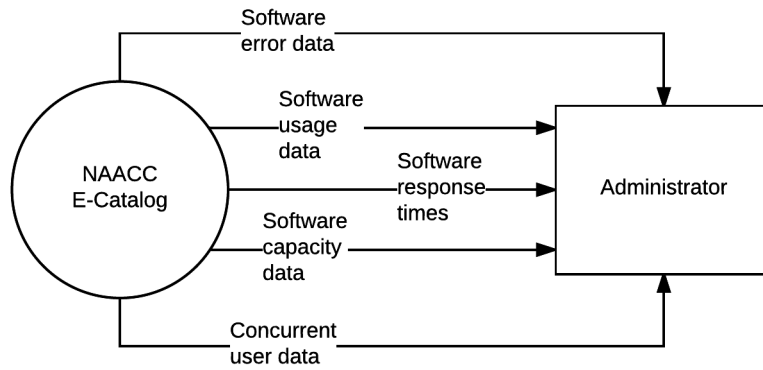
Context diagram outlining the context of the user preferences component portion of the software.





### 3.4.7 Basic statistics monitoring component context

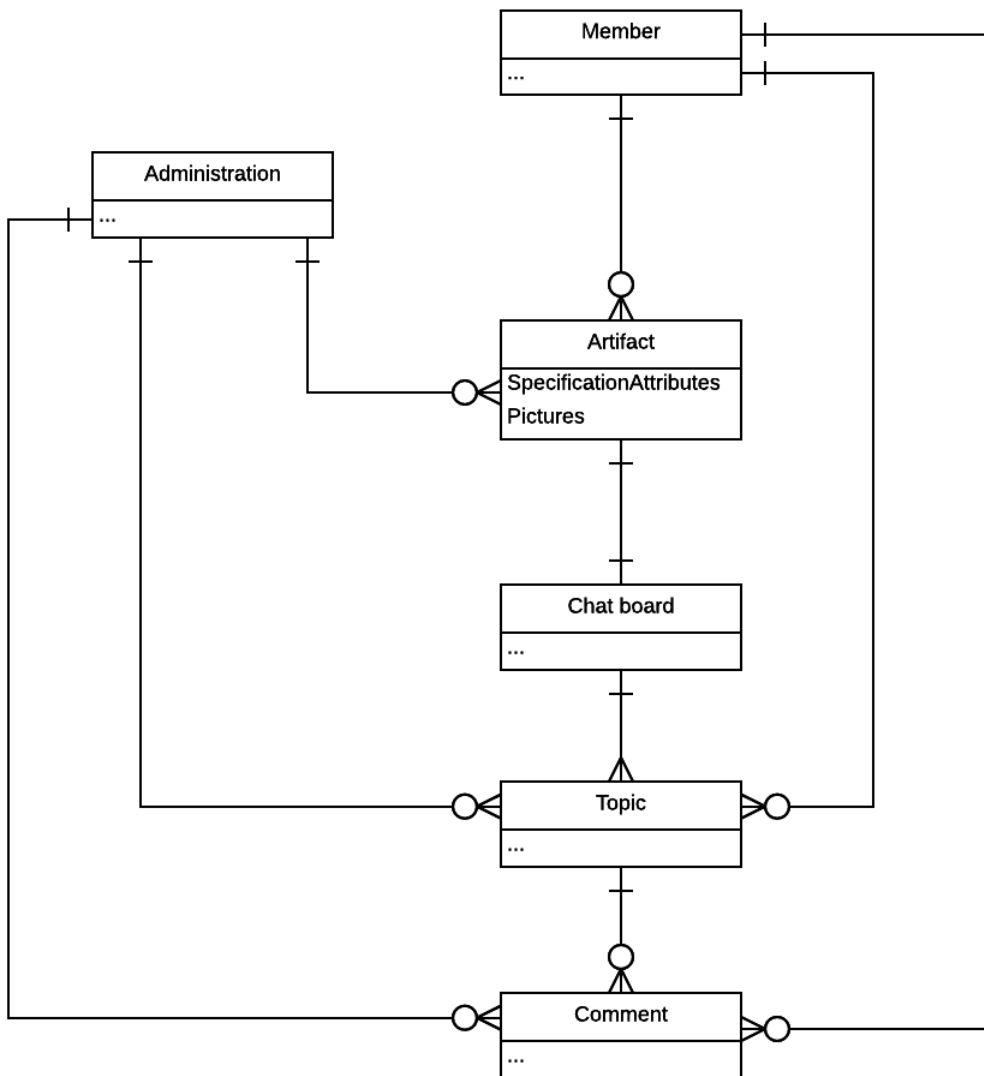
Context diagram outlining the context of the basic statistics monitoring component portion of the software.



## 3.5 Entity Relationships

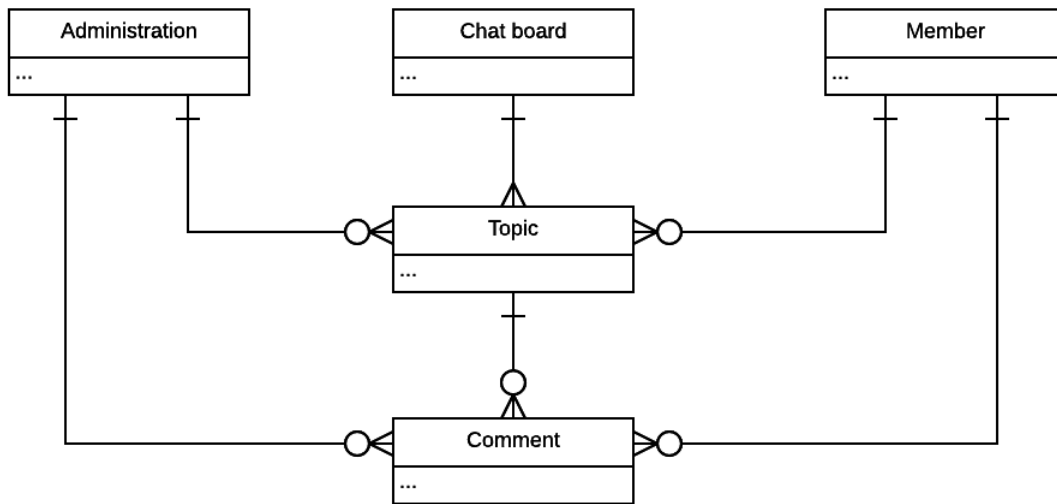
### 3.5.1 Artifact catalog component entity relationship

Entity-relationship diagram outlining the relationships among the entities that make up the artifact catalog component as well as their relationship with the chat board component entities.



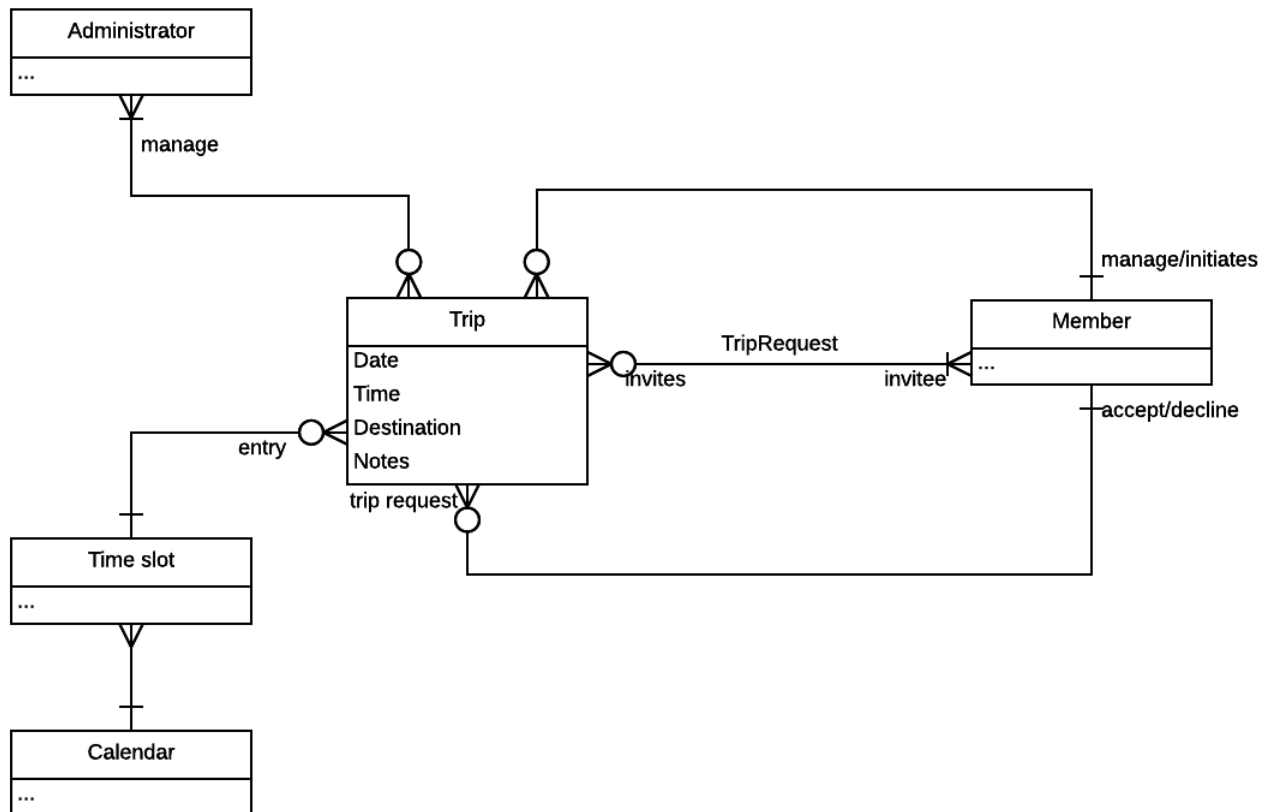
### 3.5.2 General chat board entity relationship

Entity-relationship diagram outlining the relationships among the entities that interacts with each other within the chat board component to aid in the operation of the general chat board.



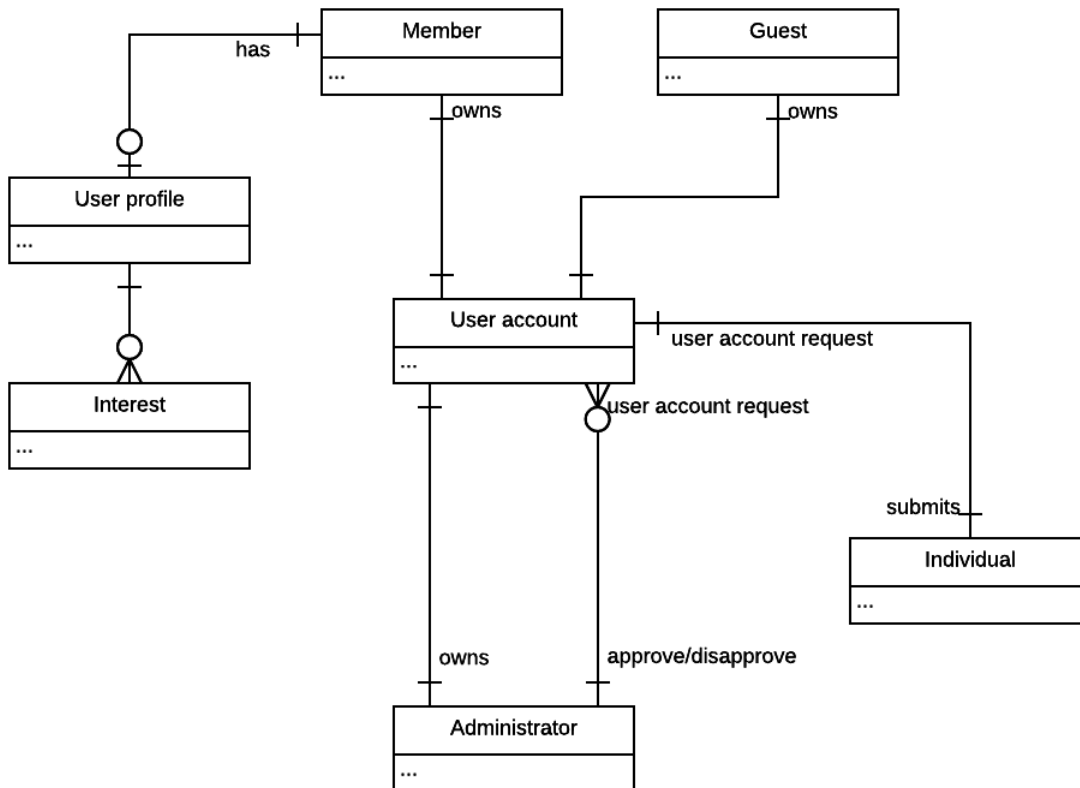
### 3.5.3 Trip calendar component entity relationship

Entity-relationship diagram outlining the relationships among the entities that interacts with each other within the trip calendar component.



### 3.5.4 User management component entity relationship

Entity-relationship diagram outlining the relationships among the entities that interacts with each other within the user management and user preferences components.



## 4 Specific Requirement Definitions

### 4.1 Functional Requirements

This section defines the specific functions of the software project.

#### 4.1.1 Artifact catalog management

*FR01*      **Description:** The artifact catalog component shall allow a full user to add a new artifact with one or more pictures and specification attributes.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** August 10, 2015

*FR02*      **Description:** The artifact catalog component shall assign a unique identification to a newly added artifact.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 24, 2015

*FR03*      **Description:** The artifact catalog component shall send a notification to each member when a new artifact is added.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** August 10, 2015

*FR04*      **Description:** The artifact catalog component shall allow a member to modify own artifact specification attributes and associated picture(s).

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 14, 2015

- FR05*     **Description:** The artifact catalog component shall allow a member to delete own artifact.
- Priority:**     High  
              **Source:**     Dr. Budwell  
              **Date:**        October 14, 2015
- 
- FR06*     **Description:** The artifact catalog component shall allow an administrator to modify any artifact specification attributes and associated picture(s).
- Priority:**     High  
              **Source:**     Dr. Budwell  
              **Date:**        October 14, 2015
- 
- FR07*     **Description:** The artifact catalog component shall allow an administrator to delete any artifact.
- Priority:**     High  
              **Source:**     Dr. Budwell  
              **Date:**        October 14, 2015
- 
- FR08*     **Description:** The artifact catalog component shall allow a user to view a collection of artifacts.
- Priority:**     High  
              **Source:**     Dr. Budwell  
              **Date:**        November 3, 2015
- 
- FR09*     **Description:** The artifact catalog component shall allow a user to view the specification attributes and picture(s) of a desired artifact.
- Priority:**     High  
              **Source:**     Dr. Budwell  
              **Date:**        September 18, 2015
- 
- FR10*     **Description:** The artifact catalog component shall allow a member to

specify own artifact for sale.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 4, 2015

*FR11*     **Description:** The artifact catalog component shall send a notification to each member when an artifact is available for sale.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** August 10, 2015

*FR12*     **Description:** The artifact catalog component shall allow a user to sort a collection of artifacts by any of its specification attributes.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 13, 2015

*FR13*     **Description:** The artifact catalog component shall allow a user to filter a collection of artifacts to display only the artifacts that are for sale.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015

*FR14*     **Description:** The artifact catalog component shall allow a member to view the location that an artifact was found on a geographic map.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** August 10, 2015

#### 4.1.2 Trip calendar management

- FR15**      **Description:** The trip calendar component shall allow a full user to add a trip with a date, time, destination and notes.
- Priority:** High  
                 **Source:** Dr. Budwell  
                 **Date:** October 18, 2015
- FR16**      **Description:** The trip calendar component shall allow a member to modify the trip attributes of own trip.
- Priority:** High  
                 **Source:** Dr. Budwell  
                 **Date:** October 18, 2015
- FR17**      **Description:** The trip calendar component shall allow a member to delete own trip.
- Priority:** High  
                 **Source:** Dr. Budwell  
                 **Date:** October 18, 2015
- FR18**      **Description:** The trip calendar component shall allow an administrator to modify the trip attributes of any trip.
- Priority:** High  
                 **Source:** Dr. Budwell  
                 **Date:** October 18, 2015
- FR19**      **Description:** The trip calendar component shall allow an administrator to delete any trip.
- Priority:** High  
                 **Source:** Dr. Budwell  
                 **Date:** October 18, 2015
- FR20**      **Description:** The trip calendar component shall allow an administrator to



view a collection of trips.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 18, 2015

*FR21*     **Description:** The trip calendar component shall allow an administrator to view the trip attributes of any trip.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 12, 2015

*FR22*     **Description:** The trip calendar component shall allow a member to invite one or more members to own trip.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 12, 2015

*FR23*     **Description:** The trip calendar component shall allow a member to accept own trip request.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 12, 2015

*FR24*     **Description:** The trip calendar component shall allow a member to decline own trip request.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 12, 2015

*FR25*     **Description:** The trip calendar component shall allow a member to view a collection of own trip requests.

**Priority:** High  
**Source:** Dr. Budwell

**Date:** October 12, 2015

*FR26*     **Description:** The trip calendar component shall allow a member to view a collection of own accepted trips.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 17, 2015

*FR27*     **Description:** The trip calendar component shall allow a member to view the trip attributes of an accepted trip.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 17, 2015

*FR28*     **Description:** The trip calendar component shall display available time slots to a full user.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 15, 2015

*FR29*     **Description:** The trip calendar component shall notify a trip invitee by email.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*FR30*     **Description:** The trip calendar component shall allow a member to specify a desired own trip as a recurring event with a desired recurring frequency.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 21, 2015

*FR31*     **Description:** The trip calendar component shall allow an administrator to specify any desired trip as a recurring event with a desired recurring frequency.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 21, 2015

*FR32*     **Description:** The trip calendar component shall allow a full user to search for trips matching a desired trip search criteria.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

#### **4.1.3 Chat board management**

*FR33*     **Description:** The chat board component shall allow a full user to add a topic to a desired chat board.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015

*FR34*     **Description:** The chat board component shall allow a full user to modify a chat board topic.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*FR35*     **Description:** The chat board component shall allow an administrator to delete a general chat board topic.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

- FR36*     **Description:** The chat board component shall allow a full user to comment on a desired chat board topic.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** August 10, 2015
- 
- FR37*     **Description:** The chat board component shall allow a full user to modify own comment.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 16, 2015
- 
- FR38*     **Description:** The chat board component shall allow a full user to delete own comment.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 16, 2015
- 
- FR39*     **Description:** The chat board component shall allow an administrator to delete any comment.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 16, 2015
- 
- FR40*     **Description:** The chat board component shall allow a user to view a comment.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 14, 2015
- 
- FR41*     **Description:** The chat board component shall allow a user to view a collection of comments for a desired chat board topic.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 14, 2015

*FR42*     **Description:** The chat board component shall allow a user to search a chat board for one or more comments matching a desired term.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

#### 4.1.4 User management

*FR43*     **Description:** The user management component shall allow a non-user to request a user account by providing a username, full name and an email address.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 21, 2015

*FR44*     **Description:** The user management component shall notify the administrators with an email when a user account has been requested.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 8, 2015

*FR45*     **Description:** The user management component shall grant a guest account to a non-user at user account request.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 15, 2015

- FR46*     **Description:** The user management component shall allow an administrator to view a collection of user account requests.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 8, 2015
- FR47*     **Description:** The user management component shall allow an administrator to view a user account request.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 8, 2015
- FR48*     **Description:** The user management component shall allow an administrator to approve a user account request.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 8, 2015
- FR49*     **Description:** The user management component shall allow an administrator to disapprove a user account request.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015
- FR50*     **Description:** The user management component shall remove the guest account associated with a disapproved user account request.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015
- FR51*     **Description:** The user management component shall notify a guest by

email when his/her user account request status has changed.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*FR52*     **Description:** The user management component shall allow an administrator to delete a desired user account.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015

*FR53*     **Description:** The user management component shall allow an administrator to add another administrator.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*FR54*     **Description:** The user management component shall allow an administrator to modify an administrator account.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*FR55*     **Description:** The user management component shall allow an administrator to view an administrator account.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*FR56*     **Description:** The user management component shall allow an administrator to view a collection of administrators.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*FR57*     **Description:** The user management component shall allow an administrator to specify the period of inactivity for a user account session time-out.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 24, 2015

*FR58*     **Description:** The user management component shall allow a user account session to time out after a specified period of inactivity.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 24, 2015

#### **4.1.5 Authentication management**

*FR59*     **Description:** The authentication component shall allow a user to login by providing valid credentials for authentication.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 13, 2015

*FR60*     **Description:** The authentication component shall allow a user to log out.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 13, 2015

*FR61*     **Description:** The authentication component shall allow a user to recovery



own lost/forgotten password.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 18, 2015

*FR62*     **Description:** The authentication component shall allow a user to reset own password.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 18, 2015

#### **4.1.6 User preferences management**

*FR63*     **Description:** The user preferences component shall allow a member to create own profile by providing an address, phone number, email address, emergency contact, an optional autobiography and an optional picture.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 18, 2015

*FR64*     **Description:** The user preferences component shall allow a member to specify his/her artifact interests within own profile.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 18, 2015

*FR65*     **Description:** The user preferences component shall allow a member to modify own profile attributes.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

- FR66*     **Description:** The user preferences component shall allow an administrator to modify the profile attributes belonging to any user.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015
- 
- FR67*     **Description:** The software shall allow a full user to view any member's profile attributes.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 19, 2015
- 
- FR68*     **Description:** The user preferences component shall allow a member to view own profile attributes.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 19, 2015
- 
- FR69*     **Description:** The user preferences component shall allow a member to specify one or more desirable notification methods.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 15, 2015

#### **4.1.7 General**

- FR70*     **Description:** The software shall allow a full user to view online user guides.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015

FR71

#### 4.1.8 Basic statistics monitoring

**FR72**      **Description:** The basic statistics monitoring system shall allow an administrator to monitor the response times of the software.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015

**FR73**      **Description:** The basic statistics monitoring system shall allow an administrator to monitor software usage.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015

**FR74**      **Description:** The basic statistics monitoring system shall allow an administrator to monitor software capacity.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015

**FR75**      **Description:** The basic statistics monitoring system shall allow an administrator to view concurrent users.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 24, 2015

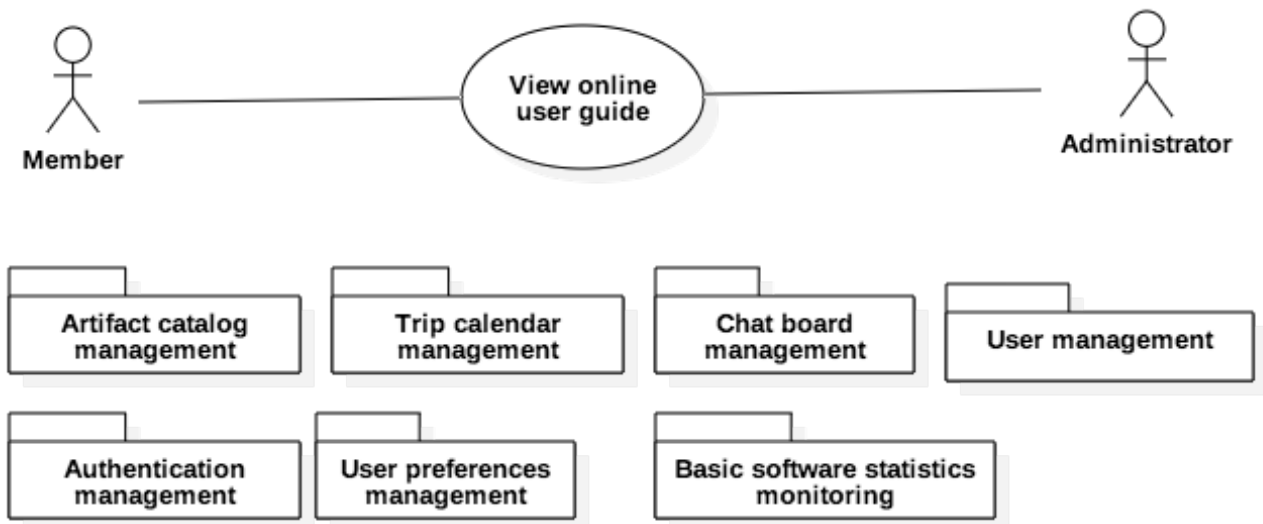
**FR76**      **Description:** The basic statistics monitoring system shall allow an administrator to view software errors.

**Priority:** High

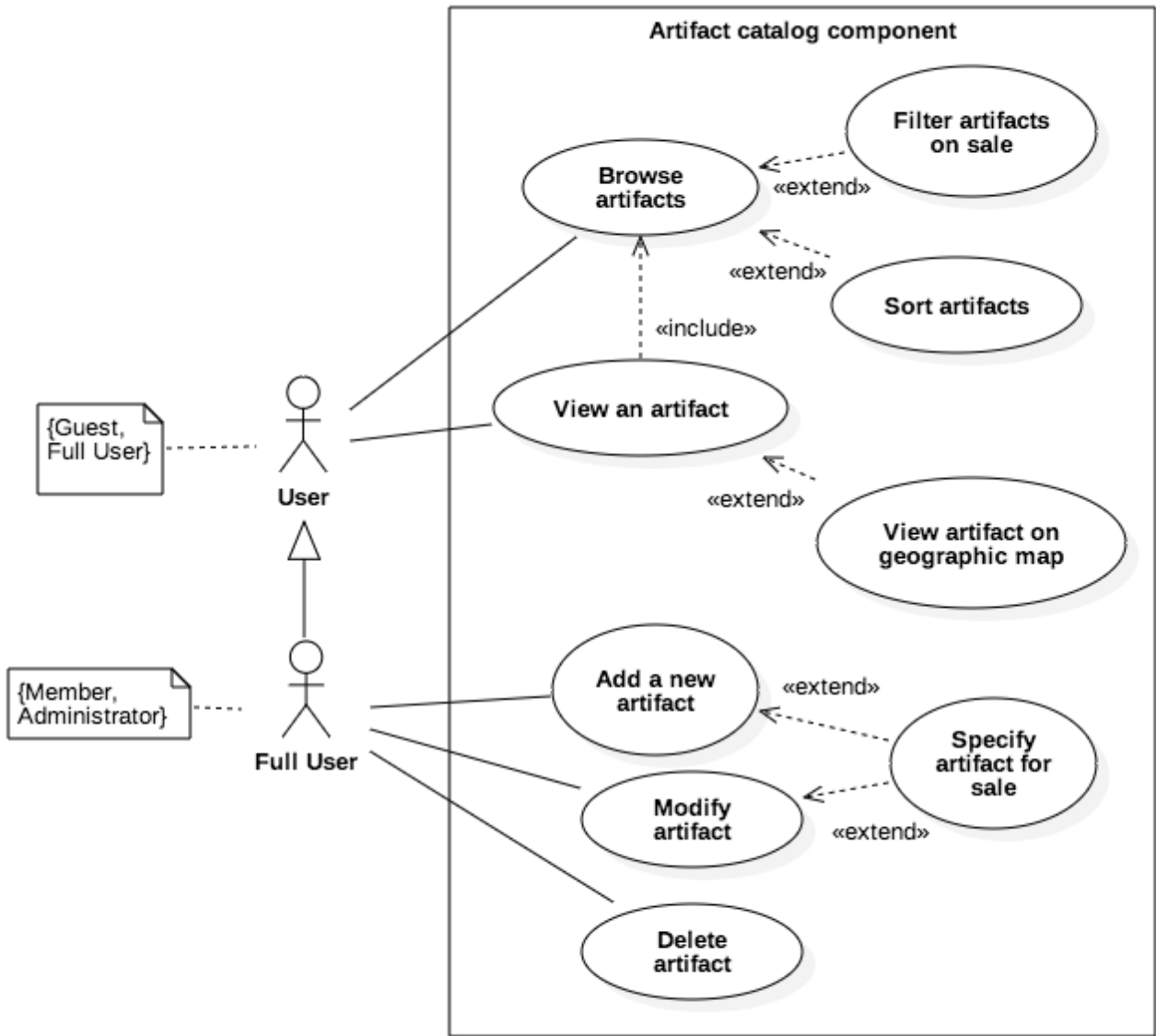
**Source:** Dr. Budwell  
**Date:** November 24, 2015

## 4.2 Use cases and Scenarios

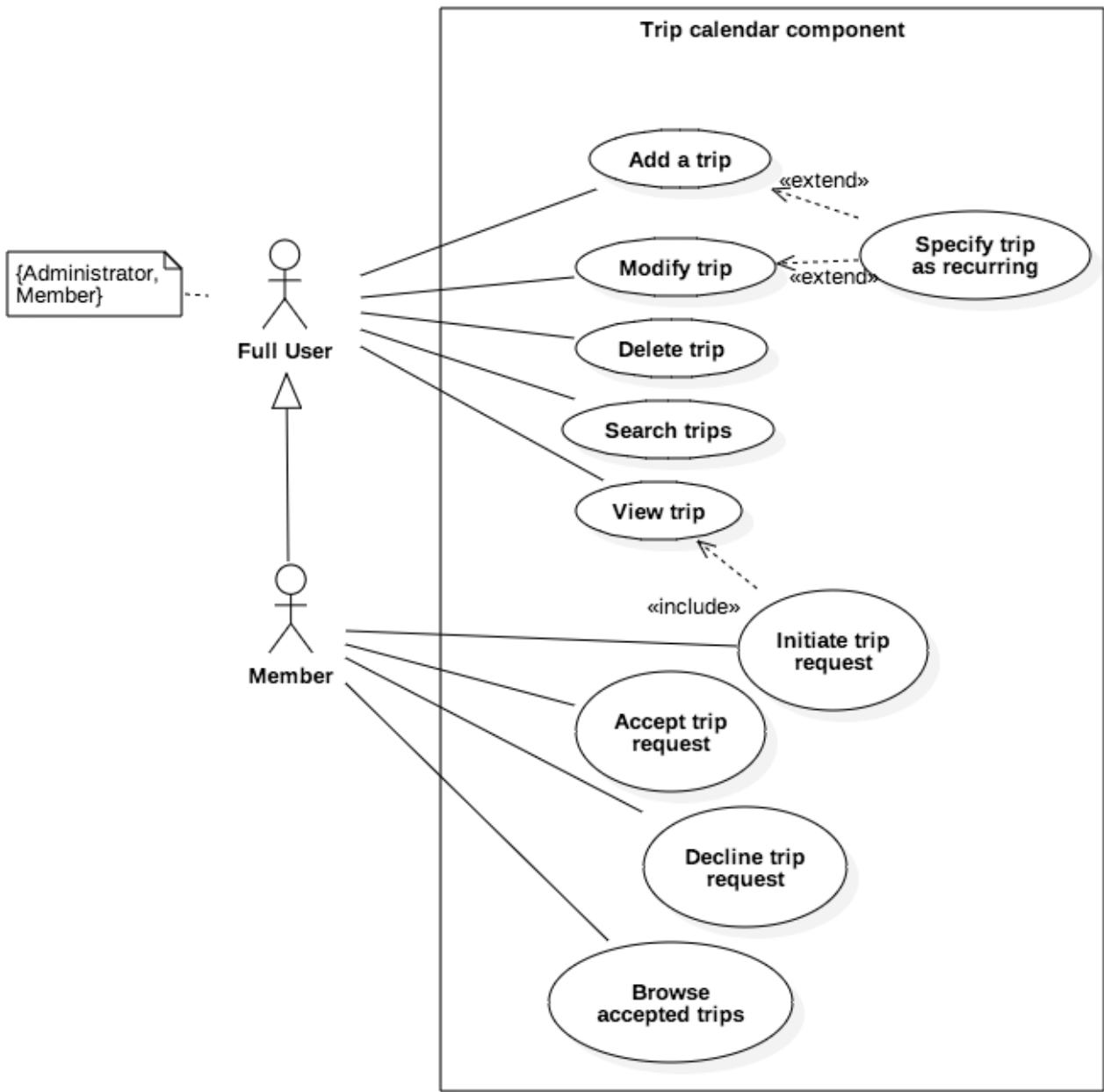
### 4.2.1 Use case diagram: High level view



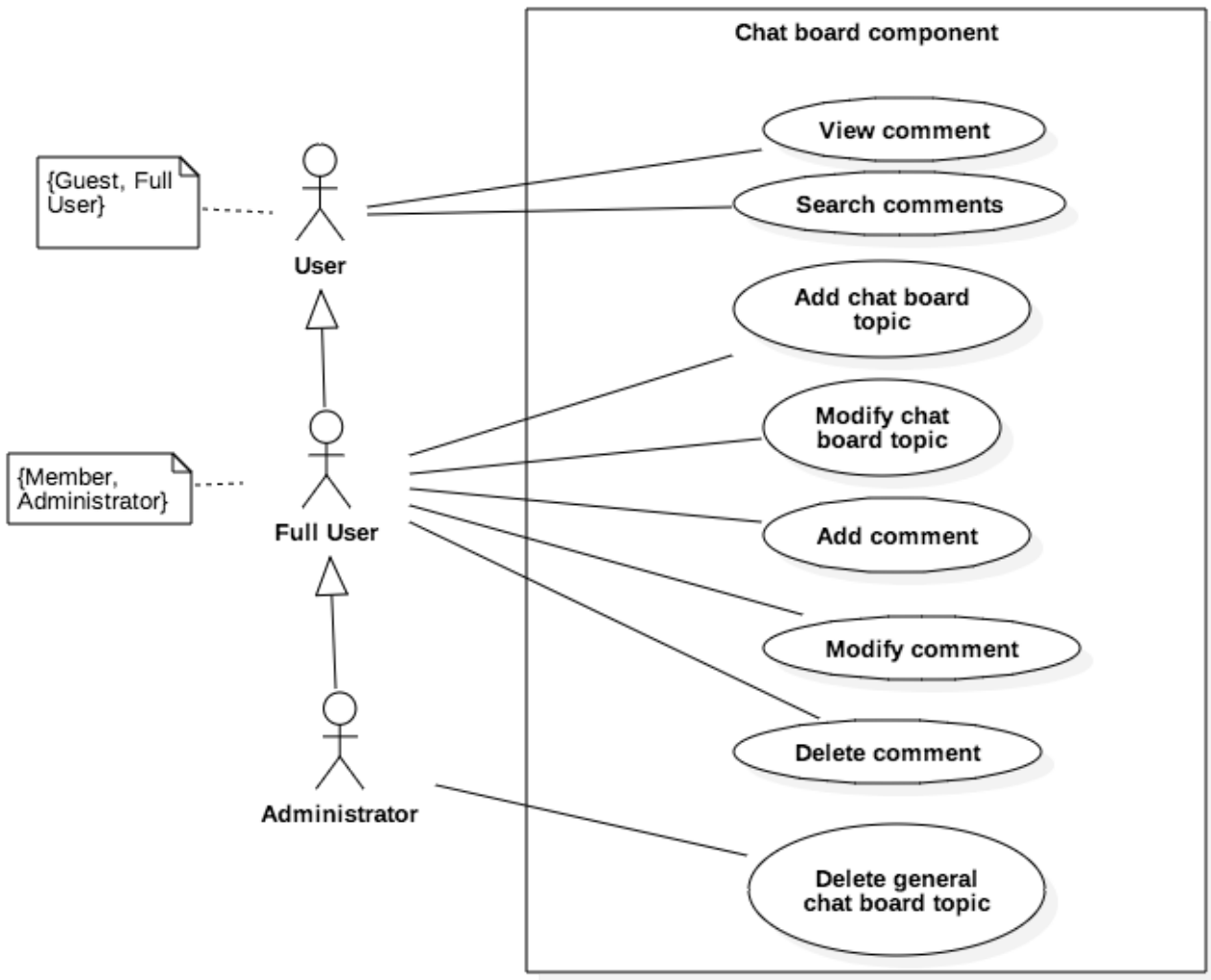
#### 4.2.2 Use case diagram: Artifact catalog management



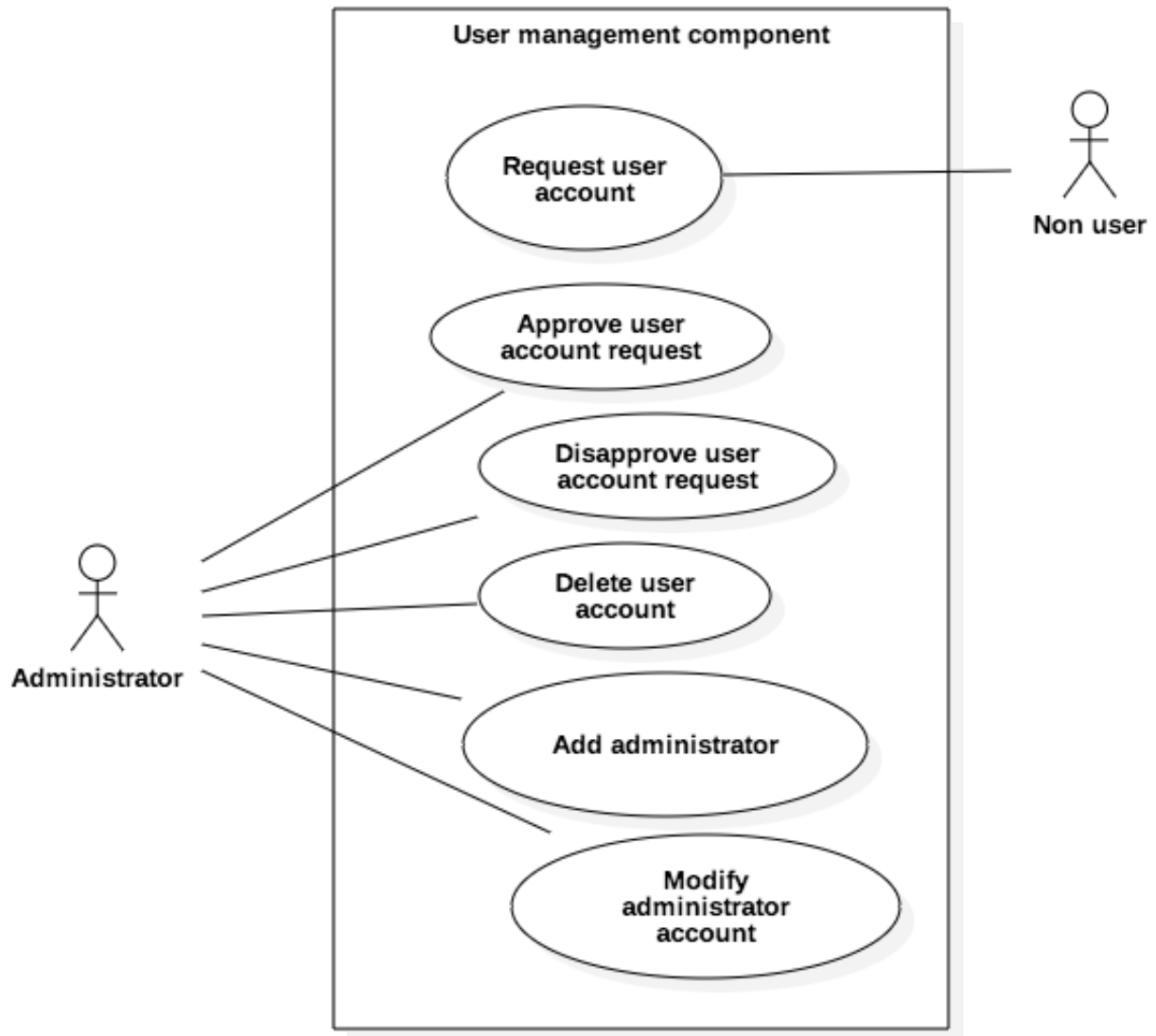
### 4.2.3 Use case diagram: Trip calendar management



#### 4.2.4 Use case diagram: Chat board management

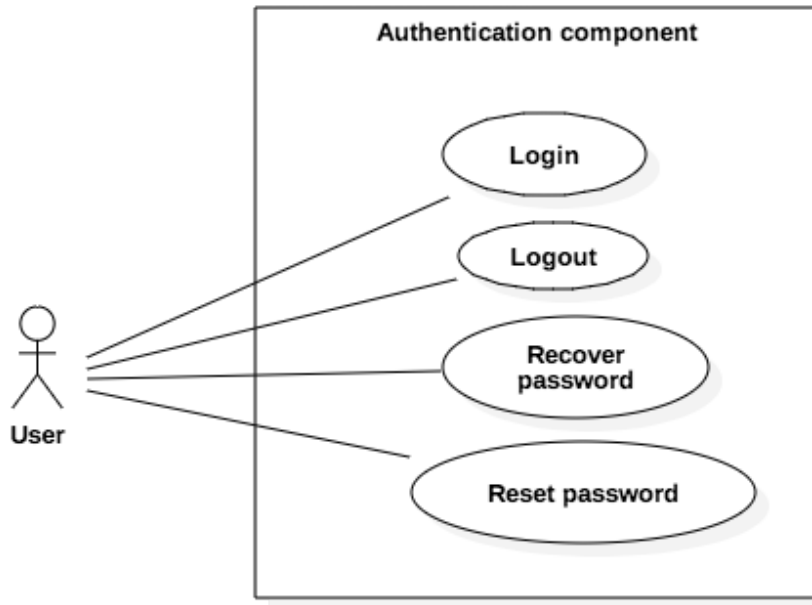


#### 4.2.5 Use case diagram: User management

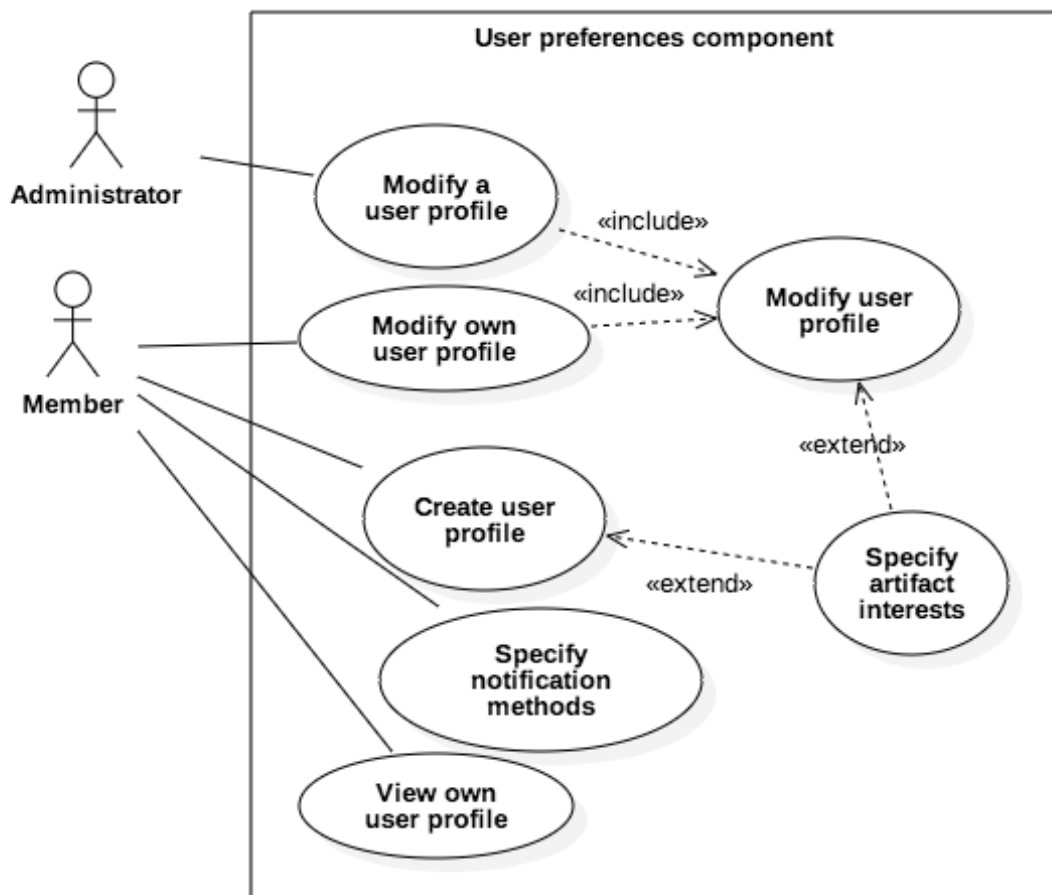




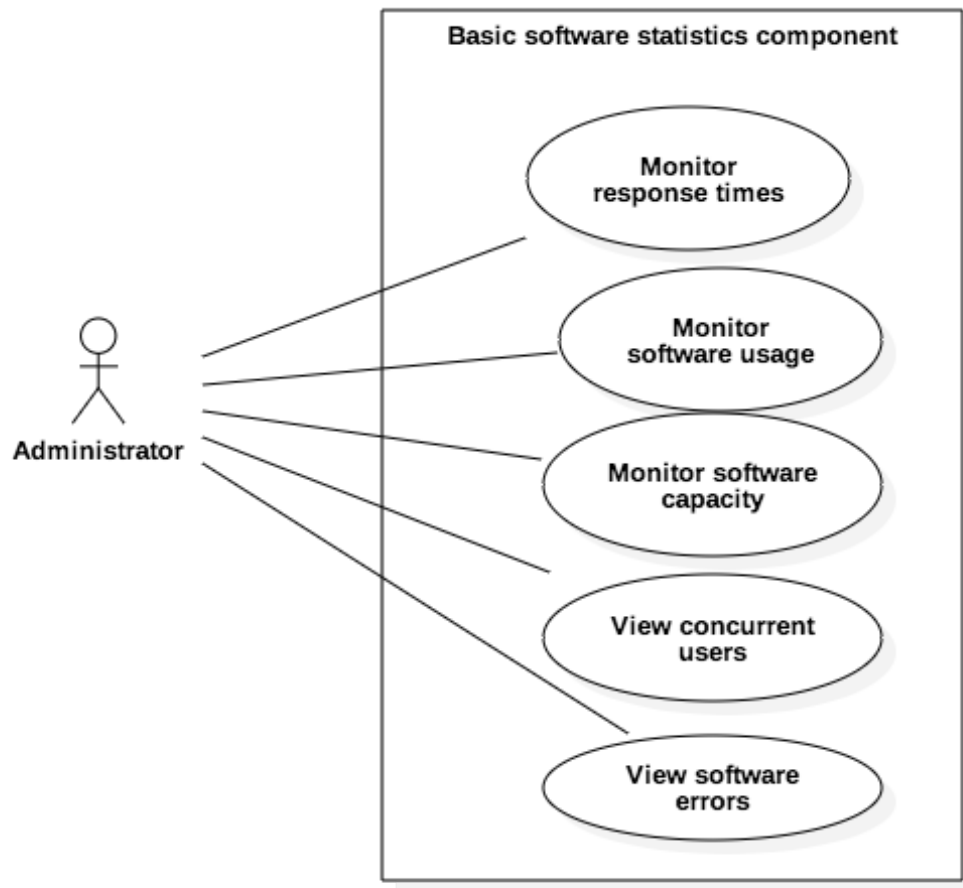
#### 4.2.6 Use case diagram: Authentication management



#### 4.2.7 Use case diagram: User preference management



#### 4.2.8 Use case diagram: Basic software statistics monitoring



#### 4.2.9 Use case descriptions

<i>UC01</i>	<b>Use case name:</b>	Add a new artifact	
	<b>Actor:</b>	Full user	
	<b>Goal/Description:</b>	To add a new artifact with one or more pictures and specification attributes to the artifact catalog.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	The actor has been authenticated.	
	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
		1. Choose to add a new artifact.	2. Prompts actor to specify specification attributes and pictures.
		3. Specify attributes and pictures.	
		<b>[O1: Actor wants to specify artifact for sale]</b>	
		4. Submit	5. Notify each member about the new artifact addition.
			<b>[O2: If artifact was specified for sale]</b>
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>• An artifact has been added to the catalog.</li> <li>• Each member is notified about the newly added artifact.</li> </ul>	

- If the newly artifact is for sale, each member is notified about the sale.

**Optional flow:**

**O1: Actor wants to specify artifact for sale**

1. Actor specifies artifact for sale

The use case continues at 4.

**O2: If artifact was specified for sale**

1. System notifies each member that the artifact is for sale.

The use case ends.

**Non-behavioral requirements:**

- NFR17
- NFR20
- NFR21
- NFR22
- NFR23
- NFR48
- NFR49

**Assumptions:**

UC03

**Source:**

- FR01
- FR02
- FR03
- FR10

*UC02*

**Use case name:**

Modify artifact

**Actor:**

Full user

**Goal/Description:**

To modify the specification attributes and/or associated picture(s) of a desired artifact, that exist in the catalog.

**Related use-**

N/A

**cases:**

**Triggers:** N/A

**Preconditions:**

- The actor has been authenticated.
- One or more artifacts exists in the catalog.
- A collection of artifacts or the desired artifact is displaying.

<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
	1. Choose the desired artifact.	2. Display possible commands.
	3. Choose to modify artifact.	4. Displays the specification attributes and pictures in read/write mode.
	5. Change desired specification attributes and/or pictures.	
	<b>[O1: Actor wants to specify artifact for sale]</b>	
	6. Submit	<b>[O2: If artifact was specified for sale]</b>

**Post conditions:**

- The desired artifact has one or more different specification attributes/photos.
- If the modified artifact is for sale, each member is notified about the sale.

**Optional flow:** **O1: Actor wants to specify artifact for sale**

1. Actor specifies artifact for sale

The use case continues at 4.

**O2: If artifact was specified for sale**

1. System notifies each member that the artifact is for sale.

The use case ends.

**Non-behavioral requirements:**

- NFR17
- NFR20
- NFR21
- NFR22
- NFR23
- NFR48
- NFR49

**Assumptions:**

N/A

**Source:**

- FR04
- FR06
- FR10

*UC03*

**Use case name:**

Delete artifact

**Actor:**

Full user

**Goal/Description:**

To delete a desired artifact that exist in the catalog.

**Related use-cases:**

N/A

**Triggers:**

N/A

**Preconditions:**

- The actor has been authenticated.
- One or more artifacts exists in the catalog.
- A collection of artifacts or the desired artifact is displaying.

**Flow of events:**

**Actor actions**

**System responses**

- |                               |                                     |
|-------------------------------|-------------------------------------|
| 1. Choose desired artifact.   | 2. Display possible commands.       |
| 3. Choose to delete artifact. | 4. The desired artifact disappears. |

- Post conditions:** • The desired artifact does not exist in the catalog.
- Extensions:** N/A
- Non-behavioral requirements:** • NFR17  
 • NFR33
- Assumptions:** N/A
- Source:** • FR05  
 • FR07

- UC04*    **Use case name:** Browse artifacts
- Actor:** User
- Goal/Description:** To view a collection of artifacts that exists in the catalog. The actor may also want to sort the artifacts by any of its attributes or filter to show only the artifacts that are on sale.
- Related use-cases:** N/A
- Triggers:** N/A
- Preconditions:** • The actor has been authenticated.  
 • One or more artifacts exists in the catalog.
- Flow of events:**
- | <b>Actor actions</b>                           | <b>System responses</b>              |
|--|--------------------------------------|
| 1. Choose to view the collection of artifacts. | 2. Display the collection artifacts. |
- [O1: Actor wants to sort**

	<b>artifact collection]</b>
	<b>[O2: Actor wants to only show a collection of artifacts that are on sale]</b>
<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>• A collection of artifacts is being displayed.</li> </ul>
<b>Optional flow:</b>	<b>[O1: Actor wants to sort artifact collection]</b> <ol style="list-style-type: none"> <li>1. Actor choose the specification attribute to sort by.</li> <li>2. Actor chooses the sort command.</li> </ol> <p>The use case returns to 2.</p> <b>[O2: Actor wants to only show a collection of artifacts that are on sale]</b> <ol style="list-style-type: none"> <li>1. Actor choose to show only artifacts on sale.</li> </ol> <p>The use case returns to 2.</p>
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>• NFR17</li> <li>• NFR24</li> <li>• NFR25</li> </ul>
<b>Assumptions:</b>	N/A
<b>Source:</b>	<ul style="list-style-type: none"> <li>• FR08</li> <li>• FR12</li> <li>• FR13</li> </ul>
<i>UC05</i>	<b>Use case name:</b> View an artifact <b>Actor:</b> User <b>Goal/Description:</b> To view the specification attributes and pictures(s) of a desired artifact that exists in the catalog. <b>Related use-cases:</b> Includes: UC04 <b>Triggers:</b> N/A



<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• The actor has been authenticated.</li> <li>• One or more artifacts exists in the catalog.</li> </ul>	
<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
	<b>1. Include UC04:</b> <b>‘Browse artifacts’</b>	
	2. Choose a desired artifact.	3. Display possible commands.
	4. Choose to view artifact.	5. Displays the specification attributes and picture(s) in read-only mode.
	<b>[O1: Actor wants to view where the artifact was found on a geographic map]</b>	
<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>• A specification attributes and picture(s) of the desired attribute is displayed.</li> <li>• The geographic map showing where the artifact location may be displayed.</li> </ul>	
<b>Optional flow:</b>	<b>[O1: Actor wants to view where the artifact was found on a geographic map]</b> 1. Actor choose to view location on geographic map. 2. System displays map with location. The use case ends.	
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>• NFR17</li> <li>• NFR26</li> <li>• NFR44</li> <li>• NFR45</li> </ul>	

		<ul style="list-style-type: none"><li>NFR46</li></ul>										
	<b>Assumptions:</b>	N/A										
	<b>Source:</b>	<ul style="list-style-type: none"><li>FR09</li><li>FR14</li></ul>										
UC06	<b>Use case name:</b>	Add a trip										
	<b>Actor:</b>	Full user										
	<b>Goal/Description:</b>	To add a trip with a date, time, destination and notes to the calendar in an effort to coordinate an artifact exploration trip.										
	<b>Related use-cases:</b>	N/A										
	<b>Triggers:</b>	N/A										
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>The actor has been authenticated.</li></ul>										
	<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Choose to add a trip.</td><td>2. Prompt the actor for the trip attributes.</td></tr><tr><td>3. Specify trip attributes.</td><td></td></tr><tr><td colspan="2"><b>[O1: Actor wants trip to be recurring]</b></td></tr><tr><td>4. Submit.</td><td></td></tr></table>	Actor actions	System responses	1. Choose to add a trip.	2. Prompt the actor for the trip attributes.	3. Specify trip attributes.		<b>[O1: Actor wants trip to be recurring]</b>		4. Submit.	
Actor actions	System responses											
1. Choose to add a trip.	2. Prompt the actor for the trip attributes.											
3. Specify trip attributes.												
<b>[O1: Actor wants trip to be recurring]</b>												
4. Submit.												
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>A new trip is added to the calendar.</li></ul>										
	<b>Optional flow:</b>	<b>[O1: Actor wants trip to be recurring]</b> <ul style="list-style-type: none"><li>1. Actor choose to make trip be recurring.</li><li>2. System provides recurring frequency options.</li><li>3. Actor choose recurring frequency.</li></ul> Use case continues at 4.										

	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li><li>• NFR41</li><li>• NFR42</li><li>• NFR43</li></ul>								
	<b>Assumptions:</b>	N/A								
	<b>Source:</b>	<ul style="list-style-type: none"><li>• FR15</li><li>• FR30</li><li>• FR28</li></ul>								
<i>UC07</i>	<b>Use case name:</b>	Modify trip								
	<b>Actor:</b>	Full user								
	<b>Goal/Description:</b>	To modify the trip attributes of an existing trip within the calendar.								
	<b>Related use-cases:</b>	N/A								
	<b>Triggers:</b>	N/A								
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has been authenticated.</li><li>• One or more more trips exist in the calendar.</li><li>• A collection of trips is being displayed.</li></ul>								
	<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Choose a desired trip.</td><td>2. Display possible commands.</td></tr><tr><td>3. Choose to modify trip.</td><td>4. Display the trip attributes in read/write mode.</td></tr><tr><td>5. Change the desired trip attributes.</td><td></td></tr></table>	Actor actions	System responses	1. Choose a desired trip.	2. Display possible commands.	3. Choose to modify trip.	4. Display the trip attributes in read/write mode.	5. Change the desired trip attributes.	
Actor actions	System responses									
1. Choose a desired trip.	2. Display possible commands.									
3. Choose to modify trip.	4. Display the trip attributes in read/write mode.									
5. Change the desired trip attributes.										
	<b>[O1: Actor wants trip to</b>									

		<b>be recurring]</b>
		6. Submit.
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>One or more of the trip attributes of the desired trip is different from before this use case.</li> </ul>
	<b>Optional flow:</b>	<b>[O1: Actor wants trip to be recurring]</b> <ol style="list-style-type: none"> <li>Actor choose to make trip be recurring.</li> <li>System provides recurring frequency options.</li> <li>Actor choose recurring frequency.</li> </ol> <p>Use case continues at 4.</p>
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>NFR17</li> <li>NFR41</li> <li>NFR42</li> <li>NFR43</li> </ul>
	<b>Assumptions:</b>	N/A
	<b>Source:</b>	<ul style="list-style-type: none"> <li>FR16</li> <li>FR18</li> <li>FR30</li> <li>FR28</li> </ul>
<i>UC08</i>	<b>Use case name:</b>	Delete trip
	<b>Actor:</b>	Full user
	<b>Goal/Description:</b>	To delete an existing trip from the calendar.
	<b>Related use-cases:</b>	N/A
	<b>Triggers:</b>	N/A
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>The actor has been authenticated.</li> <li>One or more more trips exist in the calendar.</li> <li>A collection of trips or the desired trip is being</li> </ul>

displayed.

<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
	1. Choose a desired trip.	2. Display possible commands.
	3. Choose to delete trip.	4. The desired trip disappears.
<b>Post conditions:</b>	• The desired trip does not exist in the calendar.	
<b>Optional flow:</b>	N/A	
<b>Non-behavioral requirements:</b>	• NFR17	
<b>Assumptions:</b>	N/A	
<b>Source:</b>	• FR17 • FR19	

UC09

<b>Use case name:</b>	Search trips	
<b>Actor:</b>	Full user	
<b>Goal/Description:</b>	To search the calendar for a trip or a collection of trips that match the desired search criteria.	
<b>Related use-cases:</b>	N/A	
<b>Triggers:</b>	N/A	
<b>Preconditions:</b>	• The actor has been authenticated. • One or more trips exist in the calendar.	
<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
	1. Choose to search for trips.	2. Prompt the actor for the desired search criteria.
	3. Specify the desired	

		search criteria.	
		4. Submit	5. Displays search result.
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>Displays a collection of trips matching the search criteria as search result.</li> </ul>	
	<b>Optional flow:</b>	N/A	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>NFR17</li> </ul>	
	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"> <li>FR32</li> </ul>	
UC10	<b>Use case name:</b>	View a trip	
	<b>Actor:</b>	Full user	
	<b>Goal/Description:</b>	To view a desired trip that exist in the calendar.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>The actor has been authenticated.</li> <li>One or more trips exist in the calendar.</li> <li>A collection of trips is being displayed.</li> </ul>	
	<b>Flow of events:</b>	<b>Actor actions</b> 1. Choose a desired trip. 3. Choose to view trip.	<b>System responses</b> 2. Display possible commands. 4. Display the trip attributes of the desired trip in read-only mode.
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>The trip attributes of the desired trip is displayed.</li> </ul>	

	<b>Optional flow:</b>	N/A												
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li><li>• NFR43</li></ul>												
	<b>Assumptions:</b>	N/A												
	<b>Source:</b>	<ul style="list-style-type: none"><li>• FR21</li><li>• FR27</li></ul>												
<i>UC11</i>	<b>Use case name:</b>	Initiate trip request												
	<b>Actor:</b>	Member												
	<b>Goal/Description:</b>	To invite one or more members to an existing trip on the calendar, to go on a artifact finding trip.												
	<b>Related use-cases:</b>	N/A												
	<b>Triggers:</b>	N/A												
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has been authenticated.</li><li>• The desired trip exists on the calendar.</li></ul>												
	<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td colspan="2">1. <b>Include UC10:</b></td></tr><tr><td colspan="2"><b>View a trip.</b></td></tr><tr><td>2. Choose to invite members.</td><td>3. Prompt the actor to specify one or more members.</td></tr><tr><td>4. Specify one or more members.</td><td></td></tr><tr><td>5. Submit</td><td>6. Notify each invitee.</td></tr></table>	Actor actions	System responses	1. <b>Include UC10:</b>		<b>View a trip.</b>		2. Choose to invite members.	3. Prompt the actor to specify one or more members.	4. Specify one or more members.		5. Submit	6. Notify each invitee.
Actor actions	System responses													
1. <b>Include UC10:</b>														
<b>View a trip.</b>														
2. Choose to invite members.	3. Prompt the actor to specify one or more members.													
4. Specify one or more members.														
5. Submit	6. Notify each invitee.													
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• A trip request is sent to each invitee.</li><li>• Each invitee is notified via email about the trip request.</li></ul>												

	<b>Optional flow:</b>	N/A								
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li></ul>								
	<b>Assumptions:</b>	N/A								
	<b>Source:</b>	<ul style="list-style-type: none"><li>• FR22</li><li>• FR29</li></ul>								
UC12	<b>Use case name:</b>	Accept trip request								
	<b>Actor:</b>	Member								
	<b>Goal/Description:</b>	To accept a pending trip request.								
	<b>Related use-cases:</b>	N/A								
	<b>Triggers:</b>	N/A								
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has been authenticated.</li><li>• The actor has one or more pending trip requests.</li><li>• The actor is browsing a collection of pending trip requests.</li></ul>								
	<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Choose a desired trip request.</td><td>2. Display possible commands.</td></tr><tr><td>3. Choose to view trip request.</td><td>4. Display the trip attributes of the trip request in read-only mode.</td></tr><tr><td>5. Choose to accept trip request.</td><td></td></tr></table>	Actor actions	System responses	1. Choose a desired trip request.	2. Display possible commands.	3. Choose to view trip request.	4. Display the trip attributes of the trip request in read-only mode.	5. Choose to accept trip request.	
Actor actions	System responses									
1. Choose a desired trip request.	2. Display possible commands.									
3. Choose to view trip request.	4. Display the trip attributes of the trip request in read-only mode.									
5. Choose to accept trip request.										
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• The trip request does not exist in the collection of trip requests.</li></ul>								



		<ul style="list-style-type: none"><li>• The trip request is an accepted trip.</li></ul>								
	<b>Optional flow:</b>	N/A								
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li></ul>								
	<b>Assumptions:</b>	N/A								
	<b>Source:</b>	<ul style="list-style-type: none"><li>• FR23</li><li>• FR 25</li></ul>								
<i>UC13</i>	<b>Use case name:</b>	Decline trip request								
	<b>Actor:</b>	Member								
	<b>Goal/Description:</b>	To decline a pending trip request.								
	<b>Related use-cases:</b>	N/A								
	<b>Triggers:</b>	N/A								
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has been authenticated.</li><li>• The actor has one or more pending trip requests.</li><li>• The actor is browsing a collection of pending trip requests.</li></ul>								
	<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Choose a desired trip request.</td><td>2. Display possible commands.</td></tr><tr><td>3. Choose to view trip request.</td><td>4. Display the trip attributes of the trip request in read-only mode.</td></tr><tr><td>5. Choose to decline trip request.</td><td></td></tr></table>	Actor actions	System responses	1. Choose a desired trip request.	2. Display possible commands.	3. Choose to view trip request.	4. Display the trip attributes of the trip request in read-only mode.	5. Choose to decline trip request.	
Actor actions	System responses									
1. Choose a desired trip request.	2. Display possible commands.									
3. Choose to view trip request.	4. Display the trip attributes of the trip request in read-only mode.									
5. Choose to decline trip request.										
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• The trip request does not exist in the collection of</li></ul>								

		trip requests.				
	<b>Optional flow:</b>	N/A				
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li></ul>				
	<b>Assumptions:</b>	N/A				
	<b>Source:</b>	<ul style="list-style-type: none"><li>• FR24</li></ul>				
<i>UC14</i>	<b>Use case name:</b>	Browse accepted trips				
	<b>Actor:</b>	Member				
	<b>Goal/Description:</b>	To browse a collection of trips that were accepted.				
	<b>Related use-cases:</b>	N/A				
	<b>Triggers:</b>	N/A				
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has been authenticated.</li><li>• The actor has one or more accepted trips.</li></ul>				
	<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Choose to view the collection of accepted trips.</td><td>2. Display a collection of accepted trips.</td></tr></table>	Actor actions	System responses	1. Choose to view the collection of accepted trips.	2. Display a collection of accepted trips.
Actor actions	System responses					
1. Choose to view the collection of accepted trips.	2. Display a collection of accepted trips.					
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• A collection of accepted trips is displayed.</li></ul>				
	<b>Optional flow:</b>	N/A				
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li><li>• NFR42</li></ul>				
	<b>Assumptions:</b>	N/A				
	<b>Source:</b>	<ul style="list-style-type: none"><li>• FR26</li></ul>				
<i>UC15</i>	<b>Use case name:</b>	Add a chat board topic				
	<b>Actor:</b>	Full user				

<b>Goal/Description:</b>	To add a chat board topic to a desired chat board.	
<b>Related use-cases:</b>	N/A	
<b>Triggers:</b>	N/A	
<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• The actor has been authenticated.</li> <li>• The actor is displaying the desired chat board.</li> </ul>	
<b>Flow of events:</b>	<b>Actor actions</b> <ol style="list-style-type: none"> <li>1. Choose to add a topic.</li> <li>3. Specify topic.</li> <li>4. Submit</li> </ol>	<b>System responses</b> <ol style="list-style-type: none"> <li>2. Prompt the actor for topic.</li> </ol>
<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>• A new topic has been added to the desired chat board.</li> </ul>	
<b>Optional flow:</b>	N/A	
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>• NFR17</li> <li>• NFR27</li> <li>• NFR28</li> </ul>	
<b>Assumptions:</b>	N/A	
<b>Source:</b>	<ul style="list-style-type: none"> <li>• FR33</li> </ul>	

<i>UC16</i>	<b>Use case name:</b>	Modify a chat board topic
	<b>Actor:</b>	Full user
	<b>Goal/Description:</b>	To modify a desired chat board topic existing in a desired chat board.
	<b>Related use-cases:</b>	N/A
	<b>Triggers:</b>	N/A
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• The actor has been authenticated.</li> </ul>

- The actor is displaying a collection of topics of a desired chat board.

<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
	1. Choose a desired topic	2. Display possible commands.
	3. Choose to modify topic.	4. Display the topic in read/write mode.
	5. Change topic.	
	6. Submit	
<b>Post conditions:</b>	• The desired topic is different.	
<b>Optional flow:</b>	N/A	
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>• NFR17</li> <li>• NFR27</li> <li>• NFR28</li> <li>• NFR31</li> </ul>	
<b>Assumptions:</b>	N/A	
<b>Source:</b>	• FR34	

<i>UC17</i>	<b>Use case name:</b>	Delete general chat board topic
	<b>Actor:</b>	Administrator
	<b>Goal/Description:</b>	To delete a desired topic that exists on the general chat board.
	<b>Related use-cases:</b>	N/A
	<b>Triggers:</b>	N/A
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• The actor has been authenticated.</li> <li>• The actor is displaying a collection of topics that exists on the general chat board.</li> </ul>

	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
		1. Choose a desired topic	2. Display possible commands.
		3. Choose to delete topic.	4. Desired topic disappears.
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>The desired topic does not exists in the general chat board.</li> </ul>	
	<b>Optional flow:</b>	N/A	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>NFR17</li> <li>NFR27</li> <li>NFR31</li> </ul>	
	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"> <li>FR35</li> </ul>	
UC18	<b>Use case name:</b>	Add a comment	
	<b>Actor:</b>	Full user	
	<b>Goal/Description:</b>	To add a comment to a desired topic that exists in a desired chat board.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>The actor has been authenticated.</li> <li>One or more topics exists for the desired chat board.</li> <li>The actor is displaying a collection of comments for a desired chat board topic.</li> </ul>	
	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
		1. Choose to add a	2. Prompt actor for

		new comment.	comment.
		3. Specify comment.	
		4. Submit.	
<b>Post conditions:</b>		<ul style="list-style-type: none"> <li>The desired chat board topic has the newly added comment.</li> </ul>	
<b>Optional flow:</b>	N/A		
<b>Non-behavioral requirements:</b>		<ul style="list-style-type: none"> <li>NFR17</li> <li>NFR27</li> <li>NFR28</li> <li>NFR29</li> </ul>	
<b>Assumptions:</b>	N/A		
<b>Source:</b>		<ul style="list-style-type: none"> <li>FR36</li> </ul>	
<i>UC19</i>	<b>Use case name:</b>	Modify comment	
	<b>Actor:</b>	Full user	
	<b>Goal/Description:</b>	To modify a desired comment.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>The actor has been authenticated.</li> <li>The actor is displaying a collection of comments that exists for a desired topic.</li> </ul>	
	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
		1. Choose a desired comment.	2. Display possible commands.
		3. Choose to modify comment.	4. Display comment in read/write mode
		5. Change comment.	

		6. Submit.						
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• The desired comment is different.</li></ul>						
	<b>Optional flow:</b>	N/A						
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li><li>• NFR27</li><li>• NFR28</li><li>• NFR29</li><li>• NFR30</li></ul>						
	<b>Assumptions:</b>	N/A						
	<b>Source:</b>	<ul style="list-style-type: none"><li>• FR37</li></ul>						
UC20	<b>Use case name:</b>	Delete comment						
	<b>Actor:</b>	Full user						
	<b>Goal/Description:</b>	To delete a desired comment.						
	<b>Related use-cases:</b>	N/A						
	<b>Triggers:</b>	N/A						
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has been authenticated.</li><li>• The actor is displaying a collection of comments that exists for a desired topic.</li></ul>						
	<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Choose a desired comment.</td><td>2. Display possible commands.</td></tr><tr><td>3. Choose to delete comment.</td><td>4. Desired comment disappears.</td></tr></table>	Actor actions	System responses	1. Choose a desired comment.	2. Display possible commands.	3. Choose to delete comment.	4. Desired comment disappears.
Actor actions	System responses							
1. Choose a desired comment.	2. Display possible commands.							
3. Choose to delete comment.	4. Desired comment disappears.							
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• The desired comment does not exists in the chat board.</li></ul>						
	<b>Optional flow:</b>	N/A						

	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li><li>• NFR27</li><li>• NFR28</li><li>• NFR29</li><li>• NFR30</li></ul>						
	<b>Assumptions:</b>	N/A						
	<b>Source:</b>	<ul style="list-style-type: none"><li>• FR38</li><li>• FR39</li></ul>						
<i>UC21</i>	<b>Use case name:</b>	View comment						
	<b>Actor:</b>	User						
	<b>Goal/Description:</b>	To view a desired comment.						
	<b>Related use-cases:</b>	N/A						
	<b>Triggers:</b>	N/A						
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has been authenticated.</li><li>• The actor is displaying a collection of comments that exists for a desired topic.</li></ul>						
	<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Choose a desired comment.</td><td>2. Display possible commands.</td></tr><tr><td>3. Choose to view comment.</td><td>4. Display comment in read-only mode.</td></tr></table>	Actor actions	System responses	1. Choose a desired comment.	2. Display possible commands.	3. Choose to view comment.	4. Display comment in read-only mode.
Actor actions	System responses							
1. Choose a desired comment.	2. Display possible commands.							
3. Choose to view comment.	4. Display comment in read-only mode.							
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• The desire comment is displayed.</li></ul>						
	<b>Optional flow:</b>	N/A						
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li><li>• NFR27</li><li>• NFR28</li></ul>						



<

		<ul style="list-style-type: none"><li>NFR30</li></ul>										
	<b>Assumptions:</b>	N/A										
	<b>Source:</b>	<ul style="list-style-type: none"><li>FR42</li></ul>										
UC23	<b>Use case name:</b>	Request user account										
	<b>Actor:</b>	Non-user										
	<b>Goal/Description:</b>	To request a user account by providing a username, full name and an email address.										
	<b>Related use-cases:</b>	N/A										
	<b>Triggers:</b>	N/A										
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>The non-user has not been authenticate.</li></ul>										
	<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Choose to request a user account.</td><td>2. Prompt actor to provide username, full name and email address.</td></tr><tr><td>3. Specify username, full name and email address.</td><td></td></tr><tr><td>4. Submit</td><td>5. Provide actor with guest account credentials.</td></tr><tr><td></td><td>6. Notify administrators about user account request.</td></tr></table>	Actor actions	System responses	1. Choose to request a user account.	2. Prompt actor to provide username, full name and email address.	3. Specify username, full name and email address.		4. Submit	5. Provide actor with guest account credentials.		6. Notify administrators about user account request.
Actor actions	System responses											
1. Choose to request a user account.	2. Prompt actor to provide username, full name and email address.											
3. Specify username, full name and email address.												
4. Submit	5. Provide actor with guest account credentials.											
	6. Notify administrators about user account request.											
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>Actor is granted a guest account.</li></ul>										

- A new user account request exists.
- The administrators are notified about the new user account request.

**Optional flow:** N/A

**Non-behavioral requirements:**

- NFR38
- NFR37

**Assumptions:** N/A

**Source:**

- FR43
- FR44
- FR45

*UC24*    **Use case name:** Approve user account request

**Actor:** Administrator

**Goal/Description:** To approve a desired user account request that was submitted by an non-user.

**Related use-cases:** N/A

**Triggers:** N/A

**Preconditions:**

- The actor has been authenticated.
- The desired user account request has a pending status.
- A collection of pending user account requests are displayed.

<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
	1. Choose the desired user account request.	2. Display possible commands.
	3. Choose to view user	4. Display the user

		account request.	account request in read-only mode.
		5. Choose to approve user account request.	6. Notify guest user of user account request status.
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>The guest account associated with the desired user account request is upgraded to a member account.</li> <li>The guest associated with the desired user account request is notified of their user account request status.</li> </ul>	
	<b>Optional flow:</b>	N/A	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>NFR17</li> <li>NFR38</li> <li>NFR37</li> </ul>	
	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"> <li>FR48</li> <li>FR51</li> <li>FR47</li> </ul>	
UC25	<b>Use case name:</b>	Disapprove user account request	
	<b>Actor:</b>	Administrator	
	<b>Goal/Description:</b>	To disapprove a desired user account request that was submitted by an non-user.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>The actor has been authenticated.</li> <li>The desired user account request has a pending</li> </ul>	

status.

- A collection of pending user account requests are displayed.

**Flow of events:**

**Actor actions**

**System responses**

- |   |  |
|---|--|
| 1. Choose the desired user account request.   | 2. Display possible commands.                          |
| 3. Choose to view user account request.       | 4. Display the user account request in read-only mode. |
| 5. Choose to disapprove user account request. | 6. Notify guest user of user account request status.   |

**Post conditions:**

- The guest account associated with the desired user account request is removed.
- The guest associated with the desired user account request is notified of their user account request status.

**Optional flow:**

N/A

**Non-behavioral requirements:**

- NFR17
- NFR38
- NFR37

**Assumptions:**

N/A

**Source:**

- FR49
- FR51
- FR47
- FR50

UC26	<b>Use case name:</b>	Delete user account	
	<b>Actor:</b>	Administrator	
	<b>Goal/Description:</b>	To delete a desired user account that exists within the software.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has been authenticated.</li><li>• One or more user accounts exists within the software.</li><li>• A collection of user account is displayed.</li></ul>	
	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
		1. Choose the desired user account.	2. Display possible commands.
		3. Choose to delete user account.	4. User account disappears.
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• The desired user account does not exist in the software.</li><li>• The user profile associated with the deleted account is archived.</li><li>• The artifacts associated with the deleted account becomes inactive.</li></ul>	
	<b>Optional flow:</b>	N/A	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li><li>• NFR34</li><li>• NFR35</li></ul>	
	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"><li>• FR52</li></ul>	

UC27	<b>Use case name:</b>	Add administrator	
	<b>Actor:</b>	Administrator	
	<b>Goal/Description:</b>	To create an administrator account for an administrator.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>The actor has been authenticated.</li></ul>	
	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
		1. Choose to add an administrator.	2. Prompt the actor for user account information.
		3. Specify administrator account information.	
		4. Submit	
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>A new administrator account is created.</li></ul>	
<b>Optional flow:</b>	N/A		
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>NFR17</li><li>NFR37</li><li>NFR38</li></ul>		
<b>Assumptions:</b>	N/A		
<b>Source:</b>	<ul style="list-style-type: none"><li>FR53</li></ul>		
UC28	<b>Use case name:</b>	Modify administrator account	
	<b>Actor:</b>	Administrator	
	<b>Goal/Description:</b>	To modify the user account information of a desired administrator.	

<b>Related use-cases:</b>	N/A										
<b>Triggers:</b>	N/A										
<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• The actor has been authenticated.</li> <li>• One or more additional administrator accounts exist in the software.</li> <li>• A collection of administrator accounts is displayed.</li> </ul>										
<b>Flow of events:</b>	<table> <tr> <th><b>Actor actions</b></th><th><b>System responses</b></th></tr> <tr> <td>1. Choose the desired administrator account.</td><td>2. Display possible commands.</td></tr> <tr> <td>3. Choose to modify administrator account.</td><td>4. Display the administrator account in read-write mode.</td></tr> <tr> <td>5. Change desired attributes of the administrator account.</td><td></td></tr> <tr> <td>6. Submit</td><td></td></tr> </table>	<b>Actor actions</b>	<b>System responses</b>	1. Choose the desired administrator account.	2. Display possible commands.	3. Choose to modify administrator account.	4. Display the administrator account in read-write mode.	5. Change desired attributes of the administrator account.		6. Submit	
<b>Actor actions</b>	<b>System responses</b>										
1. Choose the desired administrator account.	2. Display possible commands.										
3. Choose to modify administrator account.	4. Display the administrator account in read-write mode.										
5. Change desired attributes of the administrator account.											
6. Submit											
<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>• The desired administrator account is changed.</li> </ul>										
<b>Optional flow:</b>	N/A										
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>• NFR17</li> <li>• NFR37</li> <li>• NFR38</li> </ul>										
<b>Assumptions:</b>	N/A										
<b>Source:</b>	<ul style="list-style-type: none"> <li>• FR56</li> <li>• FR54</li> </ul>										



UC29

<b>Use case name:</b>	Login								
<b>Actor:</b>	User								
<b>Goal/Description:</b>	To login to the software by providing valid credentials for authentication.								
<b>Related use-cases:</b>	N/A								
<b>Triggers:</b>	N/A								
<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has an account in the software.</li><li>• The actor has not been authenticated.</li></ul>								
<b>Flow of events:</b>	<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Attempt to access the software.</td><td>2. Prompt the actor for authentication credentials.</td></tr><tr><td>3. Specify authentication credentials.</td><td></td></tr><tr><td>4. Submit</td><td>5. Display a collection of recently added artifacts.</td></tr></table>	Actor actions	System responses	1. Attempt to access the software.	2. Prompt the actor for authentication credentials.	3. Specify authentication credentials.		4. Submit	5. Display a collection of recently added artifacts.
Actor actions	System responses								
1. Attempt to access the software.	2. Prompt the actor for authentication credentials.								
3. Specify authentication credentials.									
4. Submit	5. Display a collection of recently added artifacts.								
<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• The actor is authenticated</li><li>• A collection of recently added artifacts is displayed.</li></ul>								
<b>Optional flow:</b>	N/A								
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li><li>• NFR19</li><li>• NFR39</li></ul>								
<b>Assumptions:</b>	N/A								

**Source:** • FR59

*UC30*    **Use case name:** Logout  
**Actor:** User  
**Goal/Description:** To logout of the software.  
**Related use-cases:** N/A  
**Triggers:** N/A  
**Preconditions:** • The actor has been authenticated.  
**Flow of events:**

<b>Actor actions</b>	<b>System responses</b>
1. Choose to logout of the software.	2. Prompt the actor for authentication credentials.

**Post conditions:** • The actor is not authenticated.  
• The software is not accessible to the actor.  
**Optional flow:** N/A  
**Non-behavioral requirements:** • NFR17  
**Assumptions:** N/A  
**Source:** • FR60

*UC31*    **Use case name:** Recover password  
**Actor:** User  
**Goal/Description:** To recovery own lost/forgotten password.  
**Related use-cases:** N/A  
**Triggers:** N/A

<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• The actor has an account in the software.</li> <li>• The actor has not been authenticated.</li> </ul>	
<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
	1. Choose to recovery password.	2. Prompt the actor for email address.
	3. Specify email address.	
	4. Submit	5. Send email to actor.
<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>• Send recovered password to the actor's email address.</li> </ul>	
<b>Optional flow:</b>	N/A	
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>• NFR17</li> <li>• NFR18</li> </ul>	
<b>Assumptions:</b>	N/A	
<b>Source:</b>	<ul style="list-style-type: none"> <li>• FR61</li> </ul>	

<i>UC32</i>	<b>Use case name:</b>	Reset password
	<b>Actor:</b>	User
	<b>Goal/Description:</b>	To reset own password.
	<b>Related use-cases:</b>	N/A
	<b>Triggers:</b>	N/A
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• The actor has been authenticated.</li> </ul>

	<b>Flow of events:</b>	<b>Actor actions</b> <ol style="list-style-type: none"> <li>1. Choose to reset password.</li> <li>3. Specify new email address.</li> <li>4. Submit</li> </ol>	<b>System responses</b> <ol style="list-style-type: none"> <li>2. Prompt the actor for new email address.</li> </ol>
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>• Actor's current email address is changed to new email address.</li> </ul>	
	<b>Optional flow:</b>	N/A	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>• NFR17</li> </ul>	
	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"> <li>• FR62</li> </ul>	
<i>UC33</i>	<b>Use case name:</b>	Create user profile	
	<b>Actor:</b>	Member	
	<b>Goal/Description:</b>	To create own profile by providing profile attributes.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• The actor has been authenticated.</li> <li>• The actor does not have a user profile.</li> </ul>	
	<b>Flow of events:</b>	<b>Actor actions</b> <ol style="list-style-type: none"> <li>1. Choose to create user profile.</li> <li>6. Specify profile attributes.</li> </ol>	<b>System responses</b> <ol style="list-style-type: none"> <li>5. Prompt the actor for profile attributes.</li> </ol>

**[O1: Actor wants to  
specify artifact  
interests]**

7. Submit

**Post conditions:**      • The actor has a user profile with the specified  
profile attributes.

**Optional flow:**      **O1: Actor wants to specify artifact interests**

1. Specify artifact interests

Use case continues at 7.

**Non-behavioral  
requirements:**      • NFR17  
• NFR48  
• NFR49

**Assumptions:**      N/A

**Source:**      • FR63  
• FR64

*UC34*      **Use case name:**      Modify user profile  
**Actor:**      Full user  
**Goal/Description:**      To modify user profile  
**Related use-  
cases:**      Included by:  
• UC35  
• UC36  
**Triggers:**      N/A  
**Preconditions:**      • The actor has been authenticated.

	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b> <ol style="list-style-type: none"> <li>1. Display user profile in read-write mode.</li> <li>2. Change one or more profile attributes.</li> </ol>
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>• One or more user profile attributes are different.</li> </ul>	
	<b>Optional flow:</b>	<b>O1: Actor wants to specify artifact interests</b> <ol style="list-style-type: none"> <li>1. Specify artifact interests.</li> </ol> <p>Use case continues at 3.</p>	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>• NFR17</li> <li>• NFR48</li> <li>• NFR49</li> </ul>	
	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"> <li>• FR65</li> <li>• FR66</li> <li>• FR64</li> </ul>	
<i>UC35</i>	<b>Use case name:</b>	Modify a user profile	
	<b>Actor:</b>	Administrator	
	<b>Goal/Description:</b>	To modify a desired member's profile.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	

- Preconditions:**
- The actor has been authenticated.
  - One or more members exists within the software.
  - The desired member has a user profile.
  - A collection of members are displayed.

<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
	1. Choose the desired member.	2. Display possible commands.
	3. Choose to modify member's user profile.	4. <b>Include - UC34:</b> <b>Modify user profile.</b>

- Post conditions:**
- One or more of the profile attributes for the desired member is different from before.

**Optional flow:** N/A

- Non-behavioral requirements:**
- NFR17
  - NFR48
  - NFR49

**Assumptions:** N/A

- Source:**
- FR66

<i>UC36</i>	<b>Use case name:</b>	Modify own user profile
	<b>Actor:</b>	Member
	<b>Goal/Description:</b>	To modify own user profile.
	<b>Related use-cases:</b>	N/A
	<b>Triggers:</b>	N/A
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• The actor has been authenticated.</li> <li>• The actor has a user profile.</li> </ul>

	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
		1. Choose to modify own user profile.	2. <b>Include - UC34:</b> <b>Modify user profile.</b>
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>One or more of the profile attributes for the actor is different from before.</li> </ul>	
	<b>Optional flow:</b>	N/A	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>NFR17</li> <li>NFR48</li> <li>NFR49</li> </ul>	
	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"> <li>FR65</li> </ul>	
UC37	<b>Use case name:</b>	View own user profile	
	<b>Actor:</b>	Member	
	<b>Goal/Description:</b>	To view the profile attributes of own user profile.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>Actor has been authenticated.</li> <li>Actor has a user profile.</li> </ul>	
	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
		1. Choose to modify own user profile.	2. Display profile attributes in read-only mode.
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>The actors profile attributes are displayed.</li> </ul>	
	<b>Optional flow:</b>	N/A	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>NFR17</li> </ul>	



	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"><li>FR68</li></ul>	
<i>UC38</i>	<b>Use case name:</b>	Monitor response times	
	<b>Actor:</b>	Administrator	
	<b>Goal/Description:</b>	To monitor the response times of the software.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"><li>The actor has been authenticated.</li></ul>	
	<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
		1. Choose to monitor software response times.	2. Display software response times.
	<b>Post conditions:</b>	<ul style="list-style-type: none"><li>The software response times are displayed.</li></ul>	
	<b>Optional flow:</b>	N/A	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>NFR17</li></ul>	
	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"><li>FR72</li></ul>	
<i>UC39</i>	<b>Use case name:</b>	Monitor software usage	
	<b>Actor:</b>	Administrator	
	<b>Goal/Description:</b>	To monitor the usage of the software.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	

<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>The actor has been authenticated.</li> </ul>				
<b>Flow of events:</b>	<table> <tr> <th>Actor actions</th><th>System responses</th></tr> <tr> <td>1. Choose to monitor usage.</td><td>2. Display software usage data.</td></tr> </table>	Actor actions	System responses	1. Choose to monitor usage.	2. Display software usage data.
Actor actions	System responses				
1. Choose to monitor usage.	2. Display software usage data.				
<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>The software usage data are displayed.</li> </ul>				
<b>Optional flow:</b>	N/A				
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>NFR17</li> </ul>				
<b>Assumptions:</b>	N/A				
<b>Source:</b>	<ul style="list-style-type: none"> <li>FR73</li> </ul>				

UC40

<b>Use case name:</b>	Monitor software capacity	
<b>Actor:</b>	Administrator	
<b>Goal/Description:</b>	To monitor the capacity of the software.	
<b>Related use-cases:</b>	N/A	
<b>Triggers:</b>	N/A	
<b>Preconditions:</b>	<ul style="list-style-type: none"><li>• The actor has been authenticated.</li></ul>	
<b>Flow of events:</b>	<b>Actor actions</b>	<b>System responses</b>
	1. Choose to monitor software capacity.	2. Display software capacity data.
<b>Post conditions:</b>	<ul style="list-style-type: none"><li>• The software capacity data are displayed.</li></ul>	
<b>Optional flow:</b>	N/A	
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"><li>• NFR17</li></ul>	
<b>Assumptions:</b>	N/A	
<b>Source:</b>	<ul style="list-style-type: none"><li>• FR74</li></ul>	

UC41	<b>Use case name:</b>	View concurrent users	
	<b>Actor:</b>	Administrator	
	<b>Goal/Description:</b>	To view the concurrent users of the software.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>The actor has been authenticated.</li> </ul>	
	<b>Flow of events:</b>	<b>Actor actions</b> <ol style="list-style-type: none"> <li>Choose to the concurrent users.</li> </ol>	<b>System responses</b> <ol style="list-style-type: none"> <li>Display the concurrent users of the software.</li> </ol>
	<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>The concurrent users of the software are displayed</li> </ul>	
	<b>Optional flow:</b>	N/A	
	<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>NFR17</li> </ul>	
	<b>Assumptions:</b>	N/A	
	<b>Source:</b>	<ul style="list-style-type: none"> <li>FR75</li> </ul>	
UC42	<b>Use case name:</b>	View software errors	
	<b>Actor:</b>	Administrator	
	<b>Goal/Description:</b>	To the error data of the software.	
	<b>Related use-cases:</b>	N/A	
	<b>Triggers:</b>	N/A	
	<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>The actor has been authenticated.</li> </ul>	
	<b>Flow of events:</b>	<b>Actor actions</b> <ol style="list-style-type: none"> <li>Choose to view</li> </ol>	<b>System responses</b> <ol style="list-style-type: none"> <li>Display software</li> </ol>

	error data.	error data.
<b>Post conditions:</b>	<ul style="list-style-type: none"> <li>The software error data are displayed.</li> </ul>	
<b>Optional flow:</b>	N/A	
<b>Non-behavioral requirements:</b>	<ul style="list-style-type: none"> <li>NFR17</li> </ul>	
<b>Assumptions:</b>	N/A	
<b>Source:</b>	<ul style="list-style-type: none"> <li>FR76</li> </ul>	

## 4.3 Non-Functional Requirements

### 4.3.1 Performance Requirements

*NFR01*    **Description:** The software shall support a maximum of 100 concurrent users.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 19, 2015

*NFR02*    **Description:** The software shall be operational 24/7.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 17, 2015

### 4.3.2 Design Constraints

*NFR03*    **Description:** Each user interface navigational action shall be within two clicks from the current page.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 25, 2015

*NFR04*    **Description:** Input fields shall be free form.

**Priority:** Medium  
**Source:** Dr. Budwell  
**Date:** November 1, 2015

### 4.3.3 Development Requirements

*NFR05*    **Description:** The software shall be developed within a budget of USD\$500,000.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 10, 2015

*NFR06*    **Description:** The software shall be developed within a 6-month timeframe.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 10, 2015

*NFR07*    **Description:** The software shall be web-based.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 15, 2015

- NFR08*    **Description:** The software shall be developed with an object-oriented approach.
- Priority:** High
- Source:** Dr. Budwell
- Date:** August 10, 2015
- 
- NFR09*    **Description:** The software shall be accessible via a web browser on a desktop computer or mobile device seamlessly.
- Priority:** High
- Source:** Dr. Budwell
- Date:** September 18, 2015
- 
- NFR10*    **Description:** The software shall be compatible with Microsoft Internet Explorer 8+.
- Priority:** High
- Source:** Dr. Budwell
- Date:** October 18, 2015
- 
- NFR11*    **Description:** The software shall be compatible with Mozilla Firefox 40+ internet browser.
- Priority:** High
- Source:** Dr. Budwell
- Date:** October 18, 2015
- 
- NFR12*    **Description:** The software shall be compatible with Safari 3+ internet browser.
- Priority:** High
- Source:** Dr. Budwell
- Date:** October 18, 2015
- 
- NFR13*    **Description:** The software shall be compatible with Google Chrome 44+ internet browser.

- |  |                  |                  |
|--|------------------|------------------|
|  | <b>Priority:</b> | High             |
|  | <b>Source:</b>   | Dr. Budwell      |
|  | <b>Date:</b>     | October 18, 2015 |
- 
- NFR14*    **Description:**    The software shall be compatible with Opera 31+ internet browser.
- 
- |  |                  |                  |
|--|------------------|------------------|
|  | <b>Priority:</b> | High             |
|  | <b>Source:</b>   | Dr. Budwell      |
|  | <b>Date:</b>     | October 18, 2015 |
- 
- NFR15*    **Description:**    The software shall be able to operate on a computer running Windows Vista+.
- 
- |  |                  |                    |
|--|------------------|--------------------|
|  | <b>Priority:</b> | High               |
|  | <b>Source:</b>   | Dr. Budwell        |
|  | <b>Date:</b>     | September 13, 2015 |
- 
- NFR16*    **Description:**    The software shall be written in the English language.
- 
- |  |                  |                    |
|--|------------------|--------------------|
|  | <b>Priority:</b> | High               |
|  | <b>Source:</b>   | Dr. Budwell        |
|  | <b>Date:</b>     | September 13, 2015 |

#### **4.3.4 Security Requirements**

- NFR17*    **Description:**    The software shall be only accessible to a user who has been authenticated with valid credentials.
- 
- |  |                  |                    |
|--|------------------|--------------------|
|  | <b>Priority:</b> | High               |
|  | <b>Source:</b>   | Dr. Budwell        |
|  | <b>Date:</b>     | September 13, 2015 |
- 
- NFR18*    **Description:**    The recovered password shall be sent to the email address that the related user has in the software.
- 
- |  |                  |      |
|--|------------------|------|
|  | <b>Priority:</b> | High |
|--|------------------|------|

- Source:** Dr. Budwell  
**Date:** October 18, 2015
- NFR19* **Description:** The software shall utilize CAPTCHA as part of the user authentication process flow.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015
- NFR20* **Description:** Pictures should be scanned for virus and malware before being uploaded.
- Priority:** Medium  
**Source:** Dr. Budwell  
**Date:** November 16, 2015

#### 4.3.5 Other Non-Functional Requirements

- NFR21* **Description:** An artifact shall have a unique id.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 18, 2015
- NFR22* **Description:** The specification attributes and associated pictures for an artifact shall be optional.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 24, 2015
- NFR23* **Description:** An artifact shall have a maximum of 5 pictures.
- Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 14, 2015



*NFR24*    **Description:** Artifacts shall be sorted by date/time created in descending order by default, when displayed as a collection.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 3, 2015

*NFR25*    **Description:** The id, name and the earliest picture of an artifact shall be displayed when displaying a collection of artifacts.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** September 27, 2015

*NFR26*    **Description:** An artifact on sale shall be indicated by an icon.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 12, 2015

*NFR27*    **Description:** The software shall have a general chat board.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 11, 2015

*NFR28*    **Description:** Each artifact shall have a chat board.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 11, 2015

*NFR29*    **Description:** A chat board topic shall have one or more comments.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 12, 2015

*NFR30*    **Description:** A collection of chat board comments shall be sorted in

descending order by the date/time added.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*NFR31* **Description:** A collection of chat board topics shall be sorted in descending order by the date/time added.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*NFR32* **Description:** An artifact's chat board topic shall not be deleted, unless the associated artifact has been deleted.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** October 16, 2015

*NFR33* **Description:** All topics belonging to an artifact's chat board shall be deleted when the associated artifact is deleted.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*NFR34* **Description:** The profile attributes for a terminated user account shall be archived for 365 days before it is deleted.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 17, 2015

*NFR35* **Description:** All artifacts that were added by a user, whose user account has been terminated, shall be inactive.

**Priority:** High  
**Source:** Dr. Budwell

**Date:** November 17, 2015

*NFR36*    **Description:** Each member shall be limited to add a maximum of 200 artifacts to the software.

**Priority:** High

**Source:** Dr. Budwell

**Date:** November 23, 2015

*NFR37*    **Description:** The software shall have a maximum of 100 user accounts.

**Priority:** High

**Source:** Dr. Budwell

**Date:** September 18, 2015

*NFR38*    **Description:** Each user account username shall be unique.

**Priority:** High

**Source:** Dr. Budwell

**Date:** November 24, 2015

*NFR39*    **Description:** A collection of recently added artifacts shall be displayed to a user immediately after authentication.

**Priority:** High

**Source:** Dr. Budwell

**Date:** November 3, 2015

*NFR40*    **Description:** Notification method options shall be one of or a combination of text message, email, Facebook wall post, Twitter status message and RSS feed.

**Priority:** High

**Source:** Dr. Budwell

**Date:** September 15, 2015

*NFR41*    **Description:** A recurring trip shall have a recurring frequency of daily,

weekly, bi-weekly, monthly or yearly.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 21, 2015

*NFR42* **Description:** A trip shall be deleted 90 days after its occurrence date and time.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 19, 2015

*NFR43* **Description:** The time zone for the trip shall be Eastern Standard Time.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 19, 2015

*NFR44* **Description:** The geographic map shall have zooming capabilities.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 19, 2015

*NFR45* **Description:** The geographic map shall indicate land topography.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 19, 2015

*NFR46* **Description:** A geographic map shall be displayed on an independent page.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*NFR47* **Description:** A warning about possible data charges shall be appended to

each text message that the software sends.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

*NFR48* **Description:** All uploaded pictures shall be JPEG, GIF or PNG image format.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 3, 2015

*NFR49* **Description:** The maximum file size for an uploaded picture shall be 5 megabytes.

**Priority:** High  
**Source:** Dr. Budwell  
**Date:** November 23, 2015

## 5 Requirements Prototyping

**RP01 Description:** Add new artifact page, to add a new artifact with one or more pictures and specification attributes to the artifact catalog.

**Related use case:** UC01

Native American artifact collector club catalog

http://naacc.com

NAACC Artifact E-Catalog Logout

Artifact Catalog  
 Chat board  
 Trip Calendar  
 Preferences

**Add a new artifact** [Add artifact](#) | [List](#)

Name

Type

Size

Material

Shape

Flaking

Color

Other characteristics

Location found

Choose pictures

SUBMIT

**RP02 Description:** Artifacts listing page, allowing for the viewing of a collection of artifacts that exists in the catalog.

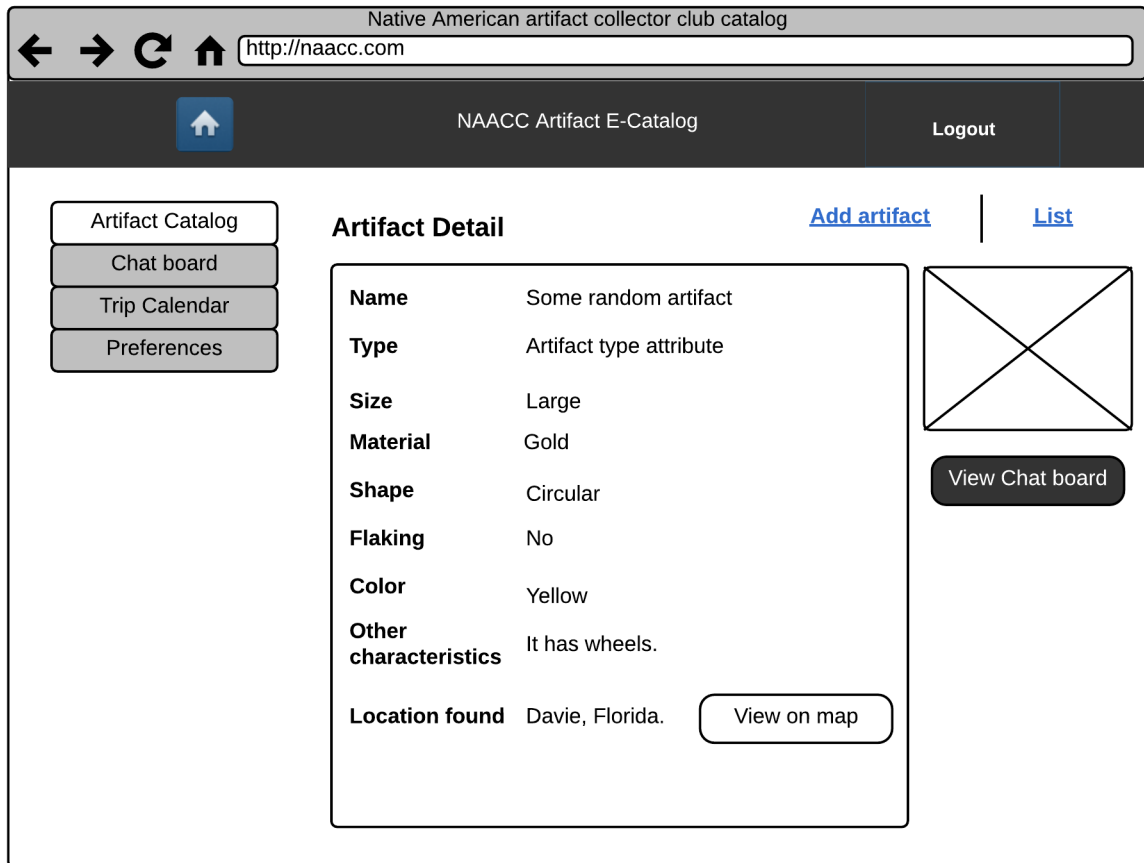
**Related use case:** UC04

The screenshot shows a web browser window with the address bar displaying "http://naacc.com". The page title is "Native American artifact collector club catalog". The main header contains a home icon, "NAACC Artifact E-Catalog", and a "Logout" link. On the left, a sidebar menu includes "Artifact Catalog", "Chat board", "Trip Calendar", and "Preferences". The main content area is titled "Artifacts" and features a "Sort by" section with radio buttons for "Date" (selected), "ID", and "Name", along with a filter dropdown set to "All" and a "For Sale" button. Below this is a table with four columns: "Select", "ID", "Picture", and "Name". The table lists four artifacts, each with a checkbox, an ID number, a placeholder image, and the text "Some random artifact". The first artifact's checkbox is checked. To the right of the table, there are "Add artifact" and "List" links, and a "View Modify Delete" button group.

Select	ID	Picture	Name
<input checked="" type="checkbox"/>	1		Some random artifact
<input type="checkbox"/>	2		Some random artifact
<input type="checkbox"/>	3		Some random artifact
<input type="checkbox"/>	4		Some random artifact

**RP03 Description:** Artifact detail page displaying the specification attributes and pictures(s) of a desired artifact that exists in the catalog.

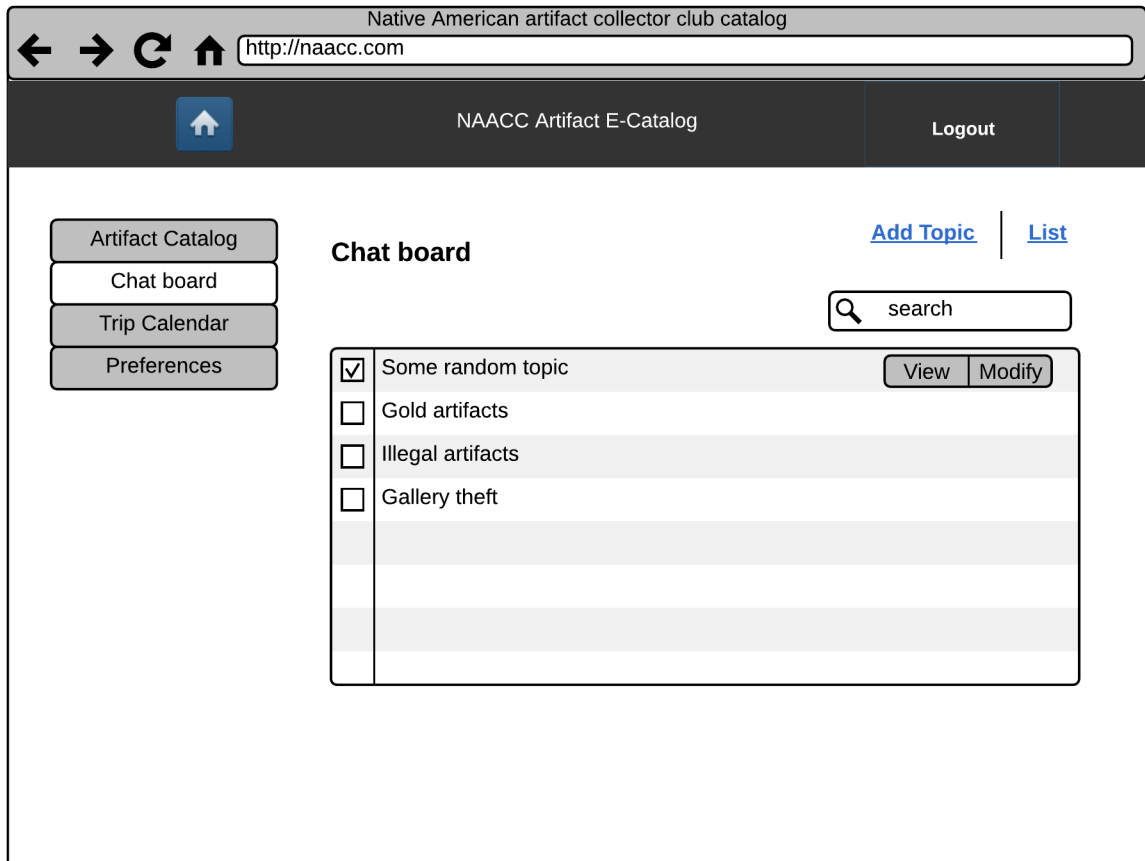
**Related use case:** UC05





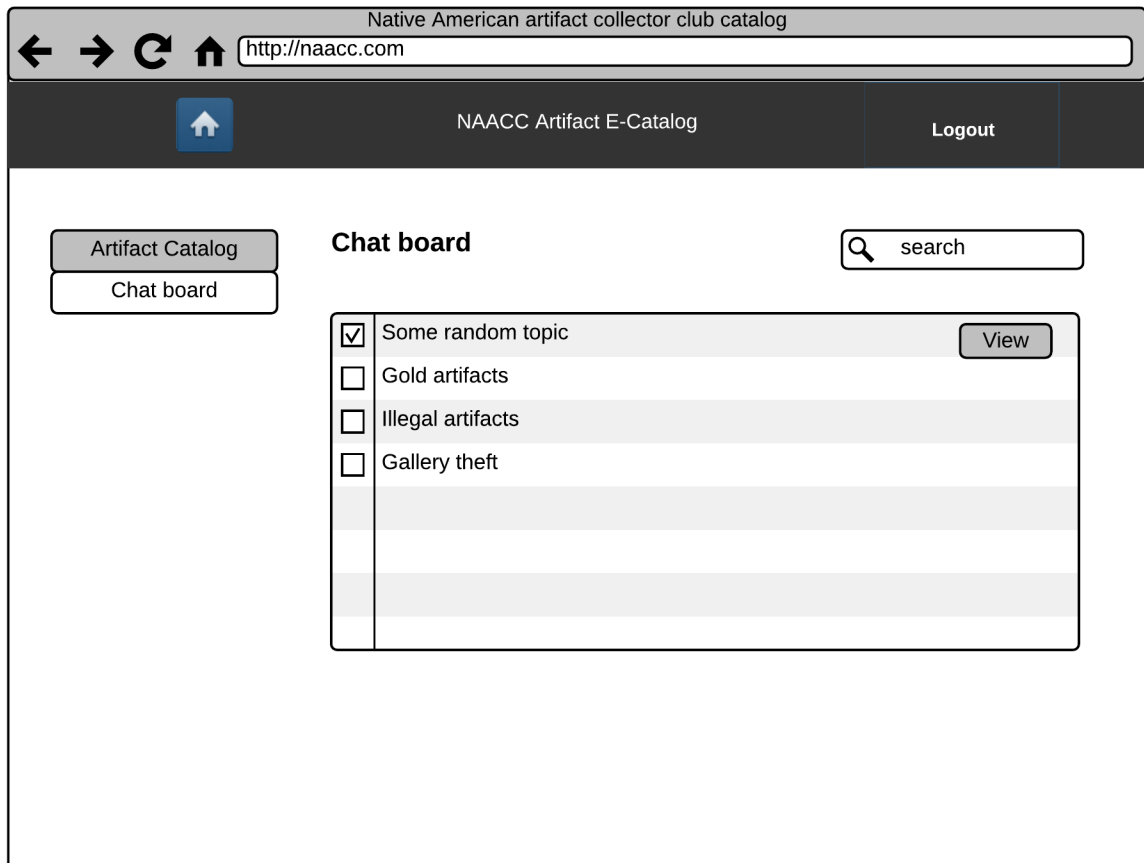
*RP04* **Description:** Chat board listing page (administrator role view) displaying a collection of topics.

**Related use case:** UC16



*RP05* **Description:** Chat board listing page (guest role view) displaying a collection of topics.

**Related use case:** n/a



**RP06 Description:** Comment listing page, listing a collection of comments for a desired chat board topic.

- Related use case:**
- UC18
  - UC19
  - UC20
  - UC21

The screenshot shows a web browser window with the address bar displaying 'http://naacc.com'. The page title is 'Native American artifact collector club catalog'. The main header contains a home icon, 'NAACC Artifact E-Catalog', and a 'Logout' link. A left sidebar menu includes 'Artifact Catalog', 'Chat board', 'Trip Calendar', and 'Preferences'. The main content area is titled 'Topic: Some random topic' and includes links for 'Add Topic' and 'List'. Below the title is a search bar with a magnifying glass icon and the text 'search'. A table displays comments with columns 'Author' and 'Comments'. The table contains two rows: one for 'Leon' and one for 'Bill', both with the placeholder text 'Lorem ipsum dolor sit ametconsectetur adipiscing elit.'. Below the table is a button labeled 'Add a new comment'.

Author	Comments
Leon	Lorem ipsum dolor sit ametconsectetur adipiscing elit.
Bill	Lorem ipsum dolor sit ametconsectetur adipiscing elit.

**RP07 Description:** Comment listing page with new comment form, listing a collection of comments for a desired chat board topic and prompting the user for a comment.

**Related use case:** UC18

The screenshot shows a web browser window with the address bar displaying "http://naacc.com". The page title is "Native American artifact collector club catalog". The main header contains a home icon, "NAACC Artifact E-Catalog", and a "Logout" link. On the left, there is a sidebar with buttons for "Artifact Catalog", "Chat board", "Trip Calendar", and "Preferences". The main content area features a "Topic: Some random topic" header. To the right of the topic are links for "Add Topic" and "List", and a search bar with a magnifying glass icon and the text "search". Below this is a table with two columns: "Author" and "Comments". The table contains two rows of data: one for "Leon" and one for "Bill", both with the same placeholder text "Lorem ipsum dolor sit ametconsectetur adipiscing elit.". Below the table is a section titled "Add a new comment" with a text input field containing the placeholder "Write comment here...". To the right of the input field are three icons: an upward arrow, a list icon, and a downward arrow. A "Submit" button is located at the bottom right of the form.

Author	Comments
Leon	Lorem ipsum dolor sit ametconsectetur adipiscing elit.
Bill	Lorem ipsum dolor sit ametconsectetur adipiscing elit.

Add a new comment

Write comment here...

Submit

**RP08 Description:** Add new trip page, to add a trip with a date, time, destination and notes to the calendar in an effort to coordinate an artifact exploration trip.

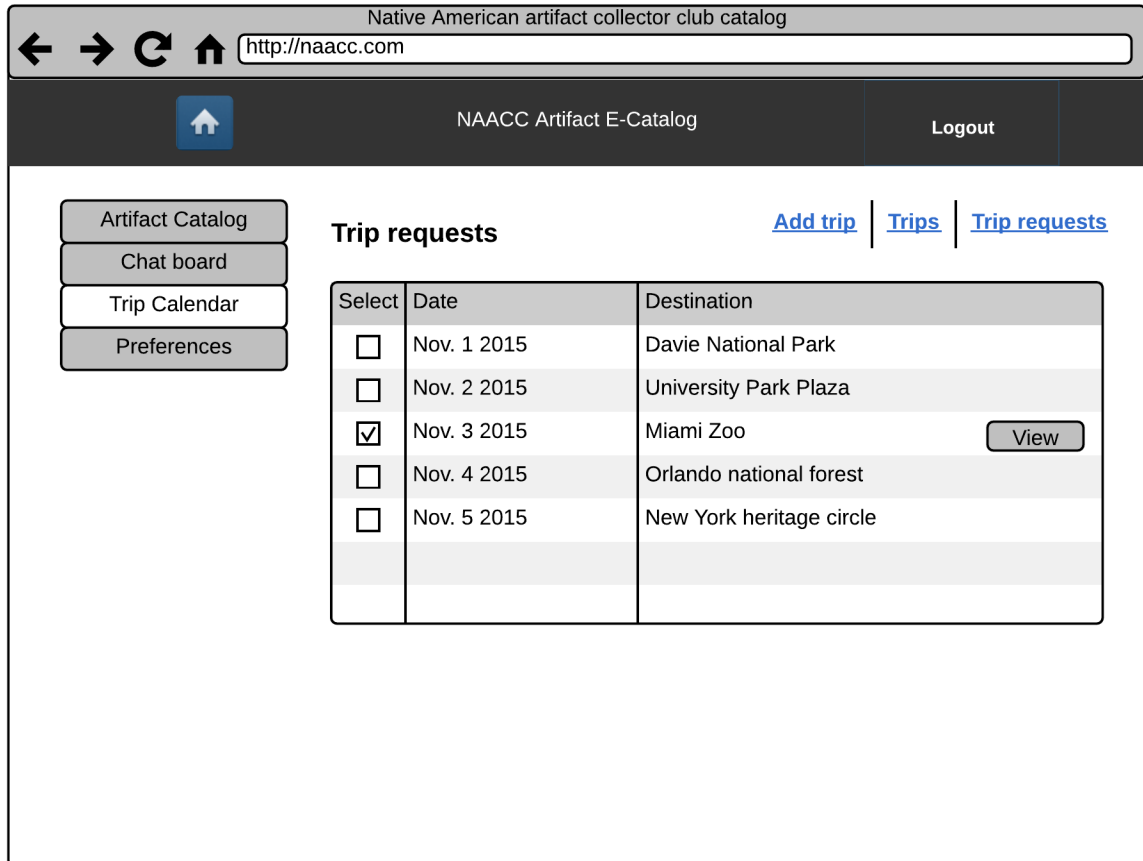
**Related use case:** UC06

The screenshot displays a web browser window titled "Native American artifact collector club catalog" with the URL "http://naacc.com". The page header includes a home icon, the text "NAACC Artifact E-Catalog", and a "Logout" link. A sidebar on the left contains four buttons: "Artifact Catalog", "Chat board", "Trip Calendar", and "Preferences". The main content area is titled "Add a new trip" and includes three links: "Add trip", "Trips", and "Trip requests". The form contains four labeled input fields: "Date", "Time", "Destination", and "Notes". A "SUBMIT" button is positioned to the right of the form.

**RP09 Description:** Trip request listing page, displaying a collection of trip requests for a particular member.

**Related use case:**

- UC12
- UC13



**RP10 Description:** Trip request detail page, displaying the details of a desired trip request and giving the member the ability to accept or decline.

**Related use case:**

- UC12
- UC13

The screenshot shows a web browser window with the address bar displaying "http://naacc.com". The page title is "Native American artifact collector club catalog". The main header is "NAACC Artifact E-Catalog" with a "Logout" link. A sidebar on the left contains links to "Artifact Catalog", "Chat board", "Trip Calendar", and "Preferences". The main content area is titled "Trip request" and includes a table with the following details:

<b>Date</b>	November 4, 2015
<b>Time</b>	12:30PM
<b>Destination</b>	Miami zoo
<b>Notes</b>	Bring food. But don't feed the animals.

Navigation links at the top right of the main content area include "Add trip", "Trips", and "Trip requests". To the right of the table are two buttons: "Accept" and "Decline".

*RP11* **Description:** User account request page, prompting a non-user for full name, username and email address in an effort to request a user account.

**Related use case:** UC23

The screenshot shows a web browser window with the address bar displaying "http://naacc.com". The page title is "Native American artifact collector club catalog". The main content area has a dark header with a home icon, the text "NAACC Artifact E-Catalog", and a "Login" link. Below the header, the page is titled "Request a user account". It contains three input fields labeled "Full name", "Username", and "Email address", each followed by a text input box. A "Submit" button is located below the "Email address" field.

Native American artifact collector club catalog

← → ↻ ⬆ http://naacc.com

⬆ NAACC Artifact E-Catalog Login

**Request a user account**

Full name

Username

Email address

Submit



**RP12 Description:** User account requests page, displaying a collection of pending user account requests for an administrator.

**Related use case:**

- UC24
- UC25

The screenshot shows a web browser window with the address bar displaying 'http://naacc.com'. The page title is 'Native American artifact collector club catalog'. The main header contains a home icon, 'NAACC Artifact E-Catalog', and a 'Logout' link. The sidebar on the left lists several navigation options: 'Artifact Catalog', 'Chat board', 'Trip Calendar', 'Preferences', 'User management', 'User account requests' (which is highlighted), and 'Software monitoring'. The main content area is titled 'User account requests' and contains a table with the following data:

Select	Full name	Email address
<input checked="" type="checkbox"/>	John Brown	johnbrown@hotmail.com <a href="#">View</a>
<input type="checkbox"/>	Janet Goldson	janet@gmail.com
<input type="checkbox"/>	Harry Douglas	harrydoug@yahoo.com
<input type="checkbox"/>	Mary Gordon	gordon.mary@yahoo.com

**RP13 Description:** User account request detail page, displaying the full name, username, and email address of a desired user account request. Also, giving the administrator the ability to approve or disapprove the user account request.

**Related use case:**

- UC24
- UC25

The screenshot shows a web browser window with the address bar displaying "http://naacc.com". The page title is "Native American artifact collector club catalog". The main header is "NAACC Artifact E-Catalog" with a "Logout" link. A sidebar on the left contains a list of navigation items: "Artifact Catalog", "Chat board", "Trip Calendar", "Preferences", "User management", "User account requests", and "Software monitoring". The main content area is titled "User account requests" and features a "List" link. A user account request is displayed with the following details:

Full name	John Appleseed
Username	johnny_apple
Email address	john.appleseed@email.com

To the right of the user details are two buttons: "Approve" and "Disapprove".

**RP14 Description:** User profile creation page, prompting a member with a form to specify user profile attributes and specify one or more interests.

**Related use case:** UC33

The screenshot shows a web browser window with the address bar displaying "http://naacc.com". The page title is "Native American artifact collector club catalog". The main header is "NAACC Artifact E-Catalog" with a "Logout" link. The main content area is titled "Create your profile" and contains a form with the following fields:

- Address
- Phone number
- Email address
- Emergency contact
- Autobiography

There is a "Submit" button at the bottom of the form. To the right of the form, there is a section for "Specify interests" with three checkboxes: "Gold" (checked), "Perls", and "Feathers". Above the "Specify interests" section is a placeholder for a profile picture with the text "Upload photo".

**RP15 Description:** User profile page, displaying the user profile attributes and interests for a desired member.

**Related use case:** UC37

The screenshot shows a web browser window with the address bar displaying 'http://naacc.com'. The page title is 'Native American artifact collector club catalog'. The main header is 'NAACC Artifact E-Catalog' with a 'Logout' link. The profile page is titled 'Profile' and contains the following information:

<b>Address</b>	Somewhere, Florida, USA.
<b>Phone number</b>	954-345-2000
<b>Email address</b>	johnbrown@email.com
<b>Emergency contact</b>	Some contact info
<b>Autobiography</b>	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut risus dui, pellentesque id consequat id,

On the right side of the profile, there is a placeholder for a user profile picture and a list of interests:

- Interests
  - Gold
  - Perl

At the bottom of the profile section, there is a 'Modify' button.

*RP16* **Description:** Login page, prompting a user to specify valid credentials for software authentication.

**Related use case:** UC29

The screenshot shows a web browser window with the address bar displaying "http://naacc.com". The page title is "Native American artifact collector club catalog". The main content area has a dark header with a home icon and the text "NAACC Artifact E-Catalog". Below the header, the page is titled "Login". It contains two input fields: "Username" and "Password", each followed by a text box. A "Submit" button is located below the password field.

Native American artifact collector club catalog

http://naacc.com

NAACC Artifact E-Catalog

Login

Username

Password

Submit

## 6 Appendix

### 6.1 Specifications for future consideration

- FCRS01*    **Description:** The artifact catalog component shall allow a user to contact the member associated with a desired artifact.  
                  **Source:** Dr. Budwell
- FCRS02*    **Description:** The chat board component shall allow a user to flag an inappropriate comment.  
                  **Source:** Dr. Budwell
- FCRS03*    **Description:** The chat board component shall notify the administrators when an inappropriate comment is flagged  
                  **Source:** Dr. Budwell
- FCRS04*    **Description:** The trip calendar shall pinpoint the destination of a trip on a geographical map.  
                  **Source:** Dr. Budwell
- FCRS05*    **Description:** The trip calendar shall allow a full user to sync trips with Google calendar.  
                  **Source:** Dr. Budwell
- FCRS06*    **Description:** The artifact catalog component shall allow a user to sort artifacts by view count or comment count.  
                  **Source:** Dr. Budwell

- FCRS07*    **Description:** The trip calendar component shall remind a member about a previously accepted trip at a desirable time prior to its occurrence.  
**Source:** Dr. Budwell
- FCRS08*    **Description:** The trip calendar component shall allow a member to set own trip to a public trip.  
**Source:** Dr. Budwell
- FCRS09*    **Description:** The trip calendar component shall allow a member to set own trip to a private trip.  
**Source:** Dr. Budwell
- FCRS10*    **Description:** The software shall allow a member to search for other members.  
**Source:** Dr. Budwell