Project Vision:

We will be making a Planner application that can support event interactions, recognize event proposals, recognize resources, allow booking event times, and disallow two groups from booking to the same resources. The Planner should be able to create/delete events on the Planner, archive events, delete events that have already passed, and edit pre-existing events. We may add or change some features in the future, but this is the baseline we have so far.

Requirements

Functional

- 1. Events should be able to interact with each other
- 2. The planner should be able to recognize separate events
- 3. The planner should prevent multiple events from booking the same time
- 4. The planner should automatically delete events with no information provided
- 5. The existing users should have access to the planner
- 6. The planner should allow the addition of new users
- 7. The users should be able to delete events they own
- 8. The users should be able to create new events
- 9. The users should be able to book times
- 10. The user should be able to un-archive events
- 11. The user should be able to add notes onto events
- 12. The user should be able to complete events
- 13. The user should be able to archive or delete completed events
- 14. The user should be able to change the details of their own events
- 15. The user should be able to delete notes

Non-Functional

- 1. The planner, and its features, will be available in the english language.
- 2. Documentation for the planner will be written in english
- 3. All event dates are posted in the format of the Gregorian calendar
- 4. The planner assumes Central Standard Time

Use Cases	req 1	req 2	req 3	req 4	req 5	req 6	req 7	req 8	req 9	req 10	req 11	req 12	req 13	req 14	req 15	Owner
UC Add Event		х	Х	Х				Х	Х							ВК
UC Archive Event		х						х	x	х		х	х			ВК
UC Edit Event		х	х	х	х		х	х	х	х		х	х	х		ВК
UC Delete Event		Х		Х	Х		Х		Х			Х	Х		Х	YD
UC Resolve Event Conflicts	х	x	x					х		x						JW
UC Event Notes		х									Х					JW
UC Delete Notes	х	х														YD
UC Event Notification		х									х					ВС
UC Toggle Notes		Х									х					YD
UC Toggle Notification s																JW
UC Create New User						х										ВС
UC List Events	х	х						х								YX
UC Login																YX
UC Complete Event	х	х	х			х		х	х							YX
UC Set starting location and time	х	х	х			х		х	х							ВС

ID UC Add Event

Created By B K

Scope Travel planner

Stakeholders and interests

User

The person/persons who will be traveling on the trip who wants transport and accommodations

Transportation Businesses

- Airlines, Taxi services etc. That will be relocating the traveler from one place to another at a specific time

Accommodations Businesses

 Restaurants, Hotels, entertainment etc. That will be providing accommodation for the traveler at a specific location but will not be relocating the traveler

Precondition

The traveler wants to attend an event.

Postcondition

The event is added to the traveler's planner.

Main success scenario

- 1. Traveler wants to add an event
- 2. Traveler inputs start and end locations and times
- 3. System checks for conflicts
- 4. Traveler confirms event

- a.* anytime the traveler wishes to stop adding event
 - 1. No event is added
- 3.a there is a conflict in time or locations
 - a. the traveler edits the current event
 - 1. The event is edited
 - 2. Go back to step 3
 - b. the traveler edits the conflicting event
 - 1. The conflicting event is edited
 - 2. The conflicting event is checked for conflicts created by edit
 - 3. Go back to step 3
 - c. the traveler allows the conflicts to exist unchanged
 - 1. Conflicts are added to a list of conflicts and are clearly displayed so that the traveler can change them later.

- 2. Proceed to confirmation in step 4
- 4.a The traveler does not confirm the event
 - 1. The event is not saved

ID UC Archive Event

Created By B K

Scope Travel Planner

Stakeholders and interests

User

- The person/persons who will be traveling on the trip who wants to save an event for later use

Precondition

There is an event that the traveler wants to archive

Postcondition

The event is stored for later use in the archive.

Main success scenario

- 1. The traveler selects an event to archive
- 2. The traveler confirms that they want to archive the event
- 3. The event is archived

- a.* At any time the traveler no longer wishes to archive the event
 - 1. No event is archived
- 2.a The traveler does not confirm that they want to archive the event
 - 1. No event is archived

ID UC Edit Event

Created By B K

Scope Travel Planner

Stakeholders and interests

User

- The person/persons who will be traveling on the trip who wants to change their transport and accommodations

Transportation Businesses

- Airlines, Taxi services etc. That will be relocating the traveler from one place to another at a specific time

Accommodations Businesses

- Restaurants, Hotels, entertainment etc. That will be providing accommodation for the traveler at a specific location but will not be relocating the traveler

Precondition

There is an event that the traveler wishes to edit

Postcondition

The event is edited

Main success scenario

- 1. The traveler selects an event to edit
- 2. The traveler edits the event
- 3. The event is checked for conflicts in location and space
- 4. The traveler confirms the edit

- a.* at any time the traveler wishes to not edit
 - 1. No event is saved
- 3.a The event conflicts with another event
 - a. the traveler edits the current event
 - 1. The event is edited
 - 2. Go back to step 3
 - b. the traveler edits the conflicting event
 - 1. The conflicting event is edited
 - 2. The conflicting event is checked for conflicts created by edit
 - 3. Go back to step 3
 - c. the traveler allows the conflicts to exist unchanged
 - 1. Conflicts are added to a list of conflicts and are clearly displayed so that the traveler can change them later.

- 2. Proceed to confirmation in step 4
- 4.a The traveler does not confirm the edit
 - 1. No event is saved

ID UC Delete Event

Created By Y D

Scope Travel Planner

Stakeholders and interests

User

- The person/persons who will be traveling on the trip who wants to cancel their transport and accommodations

Transportation Businesses

- Airlines, Taxi services etc. That will be relocating the traveler from one place to another at a specific time

Accommodations Businesses

- Restaurants, Hotels, entertainment etc. That will be providing accommodation for the traveler at a specific location but will not be relocating the traveler

Precondition

An event exists that the traveler wants to delete

Postcondition

The event is removed

Main Success Scenario

- 1. The traveler selects an event they want to delete
- 2. The system checks if removing the event will cause any conflicts
- 3. The traveler confirms that they want to remove the event
- 4. The event is removed

- a.* At any time the traveler decides not to remove the event
 - 1. The event is not removed
- 2.a There is a conflict with removing the event
 - a. The traveler adds a filler event
 - 1. The traveler begins to add a filler event with UC Add Event
 - b. The traveler edits a neighboring event to get to the next event
 - 1. The traveler begins the UC Edit Event

ID UC Resolve Event Conflicts

Created By J W

Scope Travel planner

Stakeholders and interests

User

- The person/persons who will be traveling on the trip who wants transport and accommodations

Transportation Businesses

- Airlines, Taxi services etc. That will be relocating the traveler from one place to another at a specific time

Accommodations Businesses

- Restaurants, Hotels, entertainment etc. That will be providing accommodation for the traveler at a specific location but will not be relocating the traveler

Precondition

System found conflict with event being added to the planner.

Postcondition

The conflict no longer exists.

Main success scenario

- 1. System finds a conflict
- 2. User chooses to edit the program
- 3. Event is added to the list
- 4. Conflict is resolved

- 2a. User closes prompt
- 1. Deletes Event
- 2. Returns to Planner Screen
- 2b. User Edits Event with valid input
- 1. Adds event to planner
- 2. Returns to planner
- 2c. User Edits Event w/ invalid input
- 1. Deletes event
- 2. Returns to Planner

ID UC Event Notes

Created by J W

Scope Travel Planner

User

- The person/persons who will be traveling on the trip who wants to add a note to an event

Precondition

An event exists that the traveler wants to add a note to.

Postcondition

A note is added to the event

Main Success Scenario

- 1. The traveler selects an event that they want to add a note to
- 2. The traveler inputs a note
- 3. The traveler confirms that they want to add a note
- 4. The note is added to the event

- a.* At any time the traveler no longer wishes to add the note
 - 1. No note is added to the event
- 3.a The traveler does not confirm note addition
 - 1. No note is added to the event

ID UC Delete Notes

Created by Y D

Scope Travel Planner

User

- The person/persons who will be traveling on the trip who wants to add a note to an event

Precondition

A note exists that the traveler wants to delete

Postcondition

A note was deleted

Main success Scenario

- 1. The traveler selects an event that they want to remove a note from
- 2. The traveler hits delete
- 3. The traveler confirms that they want to delete a note
- 4. The note is deleted

- a.* At any time the traveler no longer wishes to delete the note
 - 1. No note is deleted

ID UC Event Notification

Created by B C

Scope Travel Planner

User

- The person/persons who will be traveling on the trip, would like to be reminded/notified about an upcoming event

Precondition

An event that has already been created

Postcondition

A reminder/notification is sent to the user

Main Succes Scenario

- 1. An event is about to happen
- 2. A notification about an upcoming event is sent in advance

Extensions

1.a

ID UC Toggle Notes

Created by Y D

Scope Travel Planner

User

- The person/persons who will be traveling on the trip who wants to toggle the notes on or off

Precondition

The traveler is viewing the events and wants to change whether they can see the notes

Postcondition

The visibility of notes is changed

Main Success Scenario

1. The traveler toggles the notifications

- 1.a the notes are visible
 - 1. The notes are not visible
- 1.b the notes are not visible
 - 1. The notes are visible

ID UC Toggle Notifications

Created by J W

Scope Travel Planner

User

- The person/persons who will be traveling on the trip who wants to toggle the notifications on or off

Precondition

The traveler wishes the state of the notifications to change

Postcondition

The notification state is changed

Main Success Scenario

2. The traveler toggles the notifications

- 1.a the notifications are off
 - 1. The notifications are now on
- 1.b the notifications are on
 - 1. The notifications are now off

ID UC Create New User

Created by B C

Scope Travel Planner

User

- The person/persons who will be traveling would like to create a new profile that tracks their future trips

Precondition

Postcondition

A new user is created

Main Succes Scenario

- 1. User selects "create new user"
- 2. User fills in information
- 3. A new user is created

Extensions

1a. User can select cancel if they do not want to create new user

ID UC List Events

Created by Y X

Scope Travel Planner

User

- The person/persons who will be traveling on the trip who wants to see the events

Precondition

There are events that the traveler wants to see

Postcondition

The traveler can view the events

Main Success Scenario

- 1. The traveler queries the events
- 2. The events are displayed

- 1.a The traveler wants to see Archived events
- 1. The traveler is shown archived events

ID UC Login

Created by Y X

Scope Travel Planner

User

- The person/persons who will be logging into the application to access all the user's travel plans

Precondition

The user wants to login

Postcondition

The user is logged in to the application.

Main Success Scenario

- 1. The user will input their username and password.
- 2. The system will check that both the username exists, and the password is correct.
- 3. The user will be allowed to access their plans.

- 2a. The username does not exist within the system
 - 1. Call Creating User
 - 2. Automatically sign in after creation.
- 2b. The password is not correct
- 1. Prompt the user to enter the password again.

ID UC Complete Event

Created by Y X

Scope Travel Planner

User

- The person/persons who will be traveling on the trip who wants to mark an event as completed

Precondition

The traveler has input an event that they have subsequently completed

Postcondition

The event is saved as a completed event

Main Success Scenario

- 4. An event is selected
- 5. The traveler confirms completion of the event
- 6. The event is stored as completed

- 1.a The event's timebox has run out
 - 1. The event is selected
- 1.b The traveler has reached the desired destination
 - 1. The user is prompted to enter a new end time.
 - 2. The event is selected
- 1.c The traveler selects an event to complete early
 - 1. The traveler is prompted to add a new end time
 - 2. The event is selected
- 2.a The traveler does not confirm completion of the event
 - 1. The event is stored as a failed event instead of a completed event

ID UC Set starting location and time

Created by B C

Scope Travel Planner

User

- The person/persons who will be traveling on the trip, would like to note the where and when they started.

Precondition

An event is being created.

Postcondition

The time and place for an event has been set.

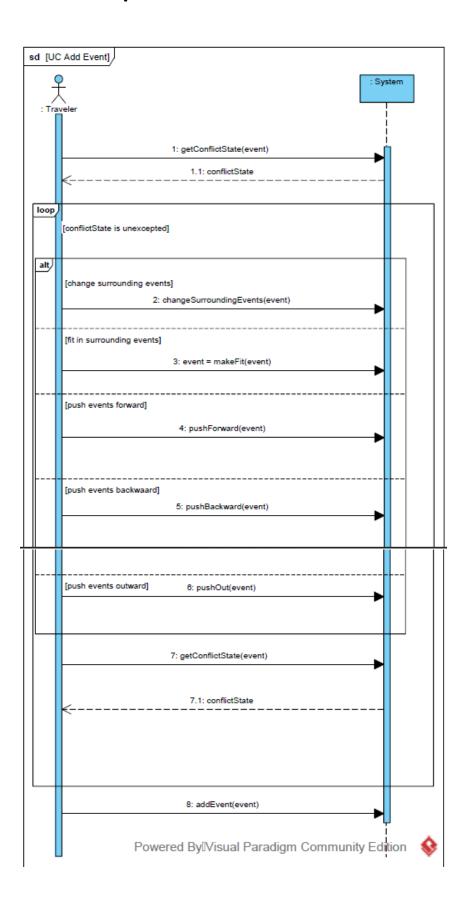
Main Succes Scenario

- 1. An event is being created
- 2. The event's time and place are set

Extensions

1a. The event's time and place has not yet been set

SSD and Operation Contracts



System

- +getConflictState(event)
- +changeSurroundingEvents(event)
- +makeFit(event)
- +pushForward(event)
- +pushBackward(event)
- +pushOut(event)
- +addEvent(event)

Contract: Add Event (event)

Operation: Adds the event Event

Cross Reference: Use Cases: Add Event Pre-conditions: Prompts to add a new event. Post-condition: A new event is created

Contract: push out (event)

Operation: removes the event

Cross Reference: Use Cases: Add Event Pre-conditions: an event is being removed. Post-condition: the event is removed

Contract: push backward (event)

Operation: pushes event further pack along the planner

Cross Reference: Use Cases: Add Event

Pre-conditions: An Event being inserted in front of event.

Post-condition: event is pushed back

Contract: push forward(event)

Operation: brings event forward in the planner

Cross Reference: Use Cases: Add Event

Pre-conditions: An Event being inserted behind event.

Post-condition: event is brought forward

Contract: makeFit(event)

Operation: makes the event fit into the planner Cross Reference: Use Cases: Add Event

Pre-conditions: inserts event at a certain position.

Post-condition: A new event is inserted

Contract: change surroundings events (event)

Operation: changes the Events around event Cross Reference: Use Cases: Add Event Pre-conditions: an event is going to be added. Post-condition: planner is prepped for new event

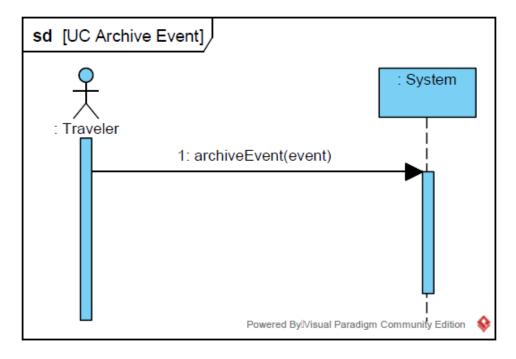
Contract: get Conflicted State (event)

Operation: checks the date of the new event with the dates of events on the planner

Cross Reference: Use Cases: Add Event

Pre-conditions: no time conflict

Post-condition: event times are checked with the new event for conflicts



System +archiveEvent(event)

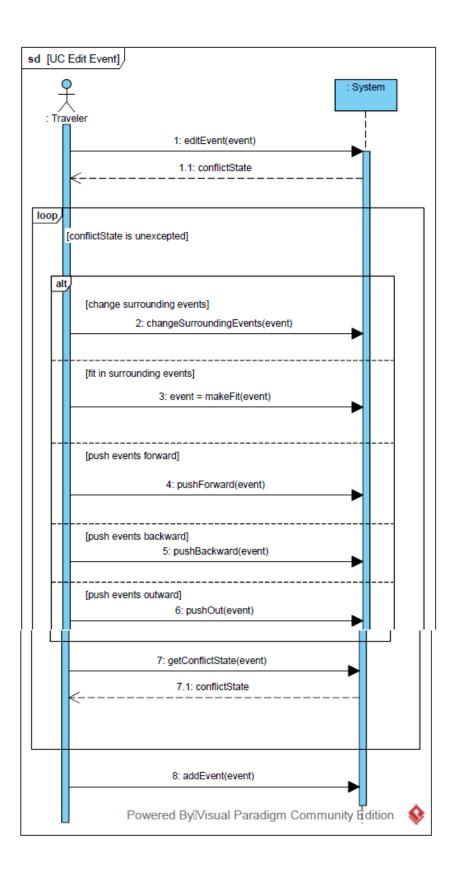
Contract: Archive Event (event)

Operation: Archives the Event, event

Cross Reference: Use Cases: Archive Event

Pre-conditions: User wants to archive an existing event.

Post-condition: The existing event is archived



System

- +getConflictState(event)
- +changeSurroundingEvents(event)
- +makeFit(event)
- +pushForward(event)
- +pushBackward(event)
- +pushOut(event)
- +addEvent(event)

Contract: Add Event (event)

Operation: Adds the event Event

Cross Reference: Use Cases: Edit Event Pre-conditions: Prompts to add a new event. Post-condition: A new event is created

Contract: Edit Event (event)

Operation: Edits the event Event

Cross Reference: Use Cases: Edit Event Pre-conditions: Prompts to add a new event. Post-condition: A new event is created

Contract: push out (event)

Operation: removes the event

Cross Reference: Use Cases: Edit Event Pre-conditions: an event is being removed. Post-condition: the event is removed

Contract: push backward (event)

Operation: pushes event further pack along the planner

Cross Reference: Use Cases: Edit Event

Pre-conditions: An Event being inserted in front of event.

Post-condition: event is pushed back

Contract: push forward(event)

Operation: brings event forward in the planner

Cross Reference: Use Cases: Edit Event

Pre-conditions: An Event being inserted behind event.

Post-condition: event is brought forward

Contract: makeFit(event)

Operation: makes the event fit into the planner

Cross Reference: Use Cases: Edit Event

Pre-conditions: inserts event at a certain position.

Post-condition: A new event is inserted

Contract: change surroundings events (event)

Operation: changes the Events around event Cross Reference: Use Cases: Edit Event Pre-conditions: an event is going to be added. Post-condition: planner is prepped for new event

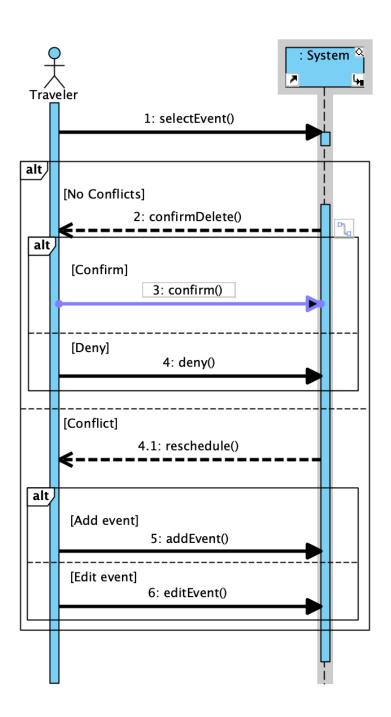
Contract: get Conflicted State (event)

Operation: checks the date of the new event with the dates of events on the planner

Cross Reference: Use Cases: Edit Event

Pre-conditions: no time conflict

Post-condition: event times are checked with the new event for conflicts



deleteEvent

- +selectEvent()
- +confirmDelete()
- +confirm()
- +deny()
- +reschedule()
- +addEvent()
- +editEvent()

Contract: select Event ()

Operation: Selects an Event to delete Cross Reference: Use Cases: deleteEvent Pre-conditions: No event selected.

Pre-conditions: No event selected.

Post-condition: An event is selected

Contract: confirm Delete()

Operation: Deletes selected event

Cross Reference: Use Cases: deleteEvent

Pre-conditions: Event selected.

Post-condition: Selected event is deleted

Contract: confirm()

Operation: Confirms deletion of an event Cross Reference: Use Cases: deleteEvent

Pre-conditions: Selected event .
Post-condition: An event is deleted

Contract: deny ()

Operation: Cancels event deletion process Cross Reference: Use Cases: deleteEvent

Pre-conditions: Event is selected. Post-condition: No event is selected

Contract: reschedule()

Operation: Reschedules selected event to a different time

Cross Reference: Use Cases: deleteEvent

Pre-conditions: Event is selected

Post-condition: Selected event has new rescheduled

Contract: Add Event ()

Operation: Adds a new Event

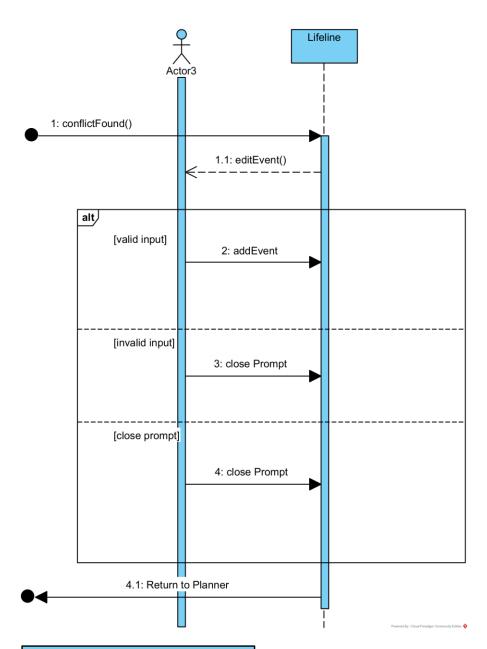
Cross Reference: Use Cases: delete Event Pre-conditions: Prompts to add a new event. Post-condition: A new event is created

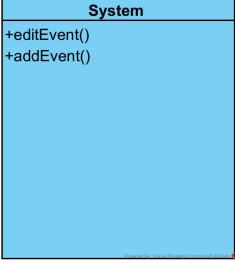
Contract: Edit Event ()

Operation: Edits "existing" Event

Cross Reference: Use Cases: delete Event

Pre-conditions: Prompts to edit an existing event.
Post-condition: An existing event's values are changed





Contract: Add Event

Operation: Adds a new Event

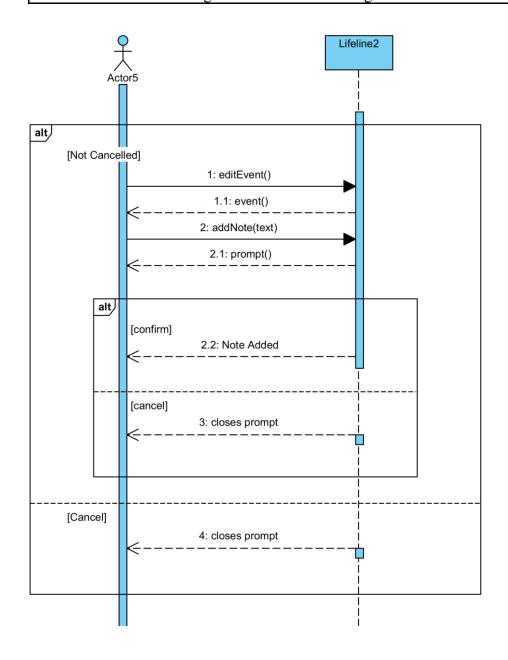
Cross Reference: Use Cases: Resolve Event Conflicts

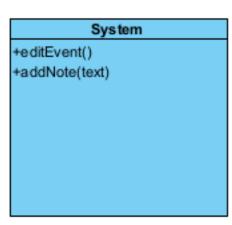
Pre-conditions: Prompts to add a new event. Post-condition: A new event is created

Contract: Edit Event

Operation: Edits "existing" Event

Cross Reference: Use Cases: Resolve Event Conflicts Pre-conditions: Prompts to edit an existing event. Post-condition: An existing event's values are changed





Contract: Add Note (Text)

Operation: Adds a new note to the event with the input text

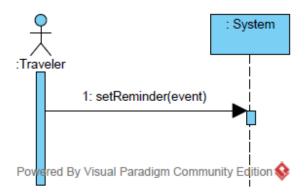
Cross Reference: Use Cases: Event Note

Pre-conditions: Prompts to add a new event note Post-condition: A new event note is created

Contract: Edit Event

Operation: Edits "existing" Event Cross Reference: Use Cases: Event Note

Pre-conditions: Prompts to edit an existing event.
Post-condition: An existing event's value are changed



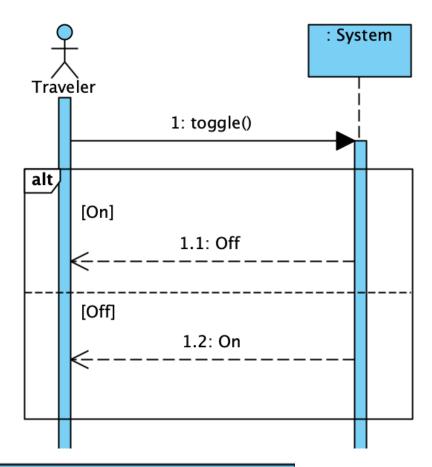
Contract: Event Notification

Operation: set notification of event

Cross Reference: Use Cases: Create Event

Pre-conditions: Event exists

Post-condition: Notification for event is set

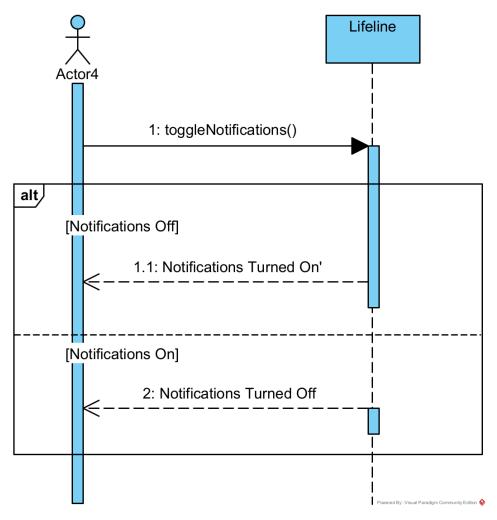


ToggleNotes

+toggle()

Contract: Toggle Notes

Operation: toggles the notes visible or invisible Cross Reference: Use Cases: Toggle Notes Pre-conditions: The Notes are in a particular state Post-condition: The notes are in the opposite state

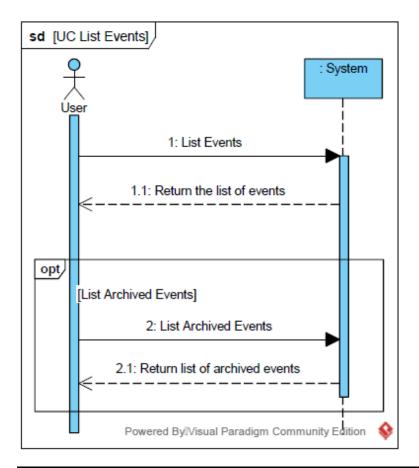


+toggleNotifications()

Contract: Toggle Notifications

Operation: Edits "existing" Event

Cross Reference: Use Cases: Toggle Notifications Pre-conditions: Prompts to edit an existing event. Post-condition: An existing event's value are changed



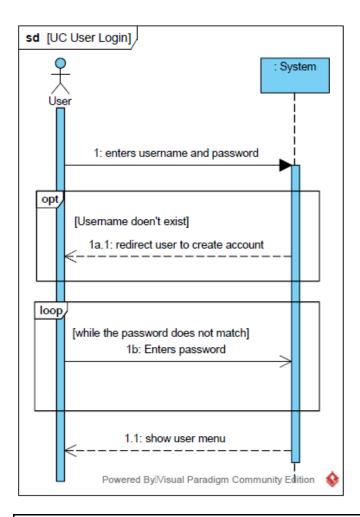
Contract: List Events

Operation: list events

Cross Reference: Archive events

Pre-conditions: The user is logged in and accessible to the menu

Post-condition: the event list is presented to the events.



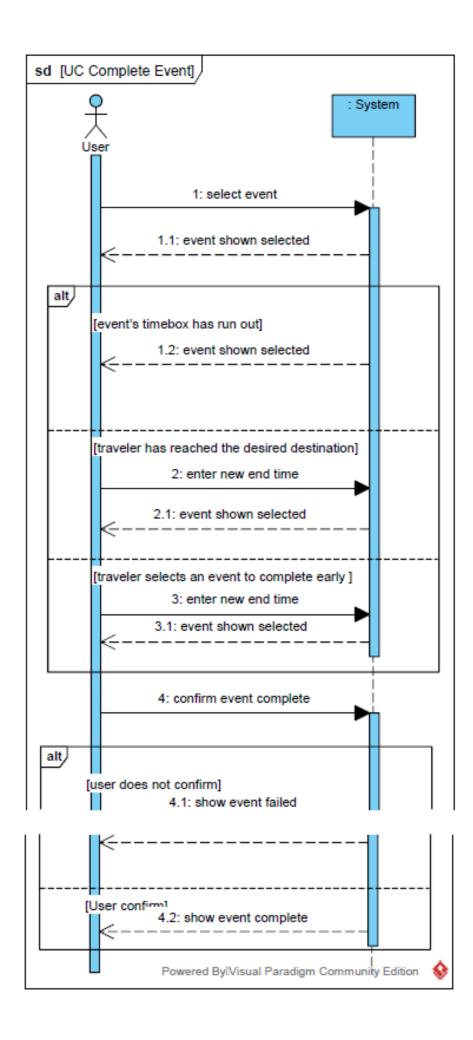
Contract: User Login

Operation: User Login

Cross Reference: Use Cases: Create User

Pre-conditions:

Post-condition: User is logged in

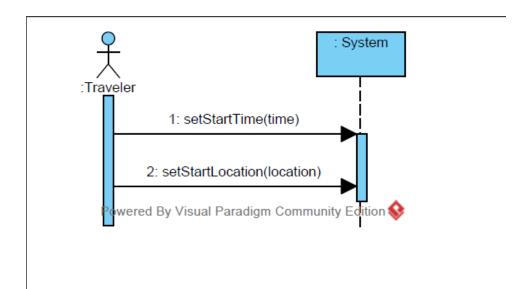


Contract: Complete Events

Operation: Complete events Cross Reference: List events

Pre-conditions: The traveler has input an event that they have subsequently completed

Post-condition: The event is saved as a completed event



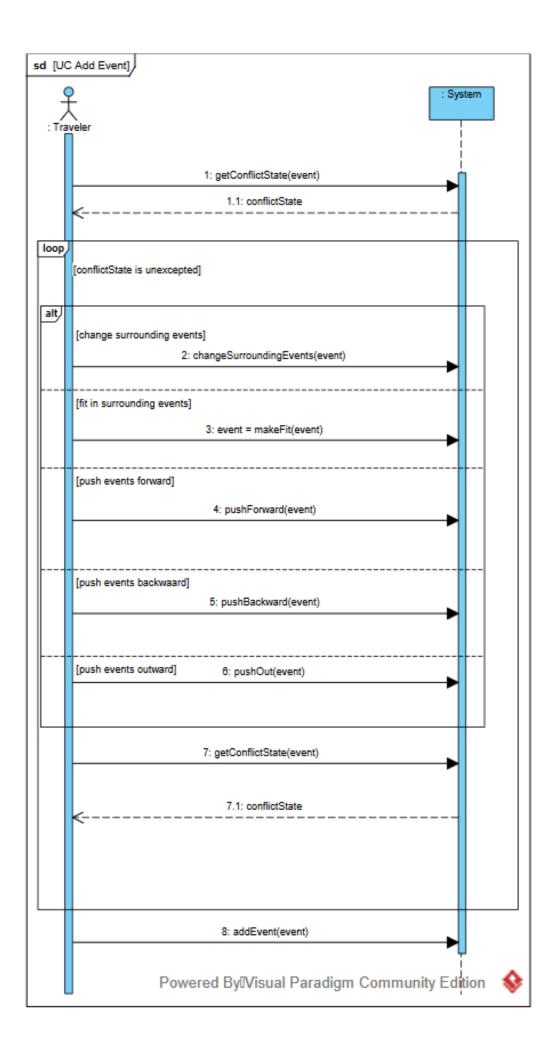
Contract: Set Starting Time and Location

Operation: set time and location

Cross Reference: Use Cases: Create Event

Pre-conditions: An event is currently being created

Post-condition: The time and place has been set for the event



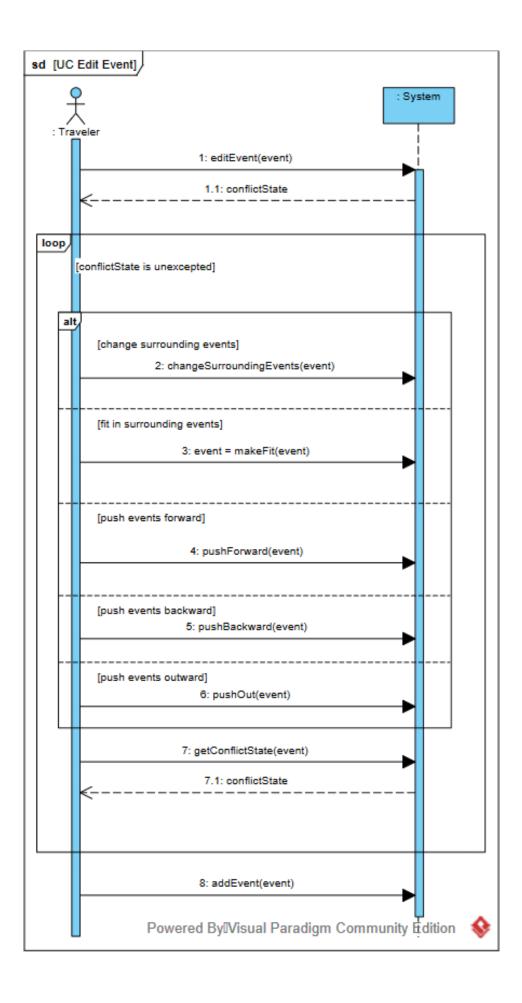
UC Add Event System Diagram,

System

- +getConflictState(event : Event)
- +changeSurroundingEvents(event : Event)
- +makeFit(event : Event)
- +pushForward(event : Event)
- +pushBackward(event : Event)
- +pushOut(event : Event)
- +addEvent(event : Event)

Powered ByllVisual Paradigm Community Edition





System Operations

System

+editEvent(event : Event)

+changeSurroundingEvents(event : Event)

+makeFit(event : Event)

+pushForward(event : Event)

+pushBackward(event : Event)

+pushOut(event : Event)

+getConflictState(event : Event)

+addEvent(event : Event)

Powered ByllVisual Paradigm Community Edition

•

Contract: Get Conflict State

Operation: Get Conflict State

Cross Reference: Use Cases: Add Event, Edit Event

Pre-conditions: Event exists that may be in conflict with other events.

Post-condition: Conflicting Events are known

Contract: Change Surrounding Events

Operation: Change Surrounding Events

Cross Reference: Use Cases: Add Event, Edit Event

Pre-conditions: There is an Event that has conflicts with other events

Post-condition: Conflicting events start and stop time are changed to reflect the start and stop

time of the given event.

Contract: Make Fit

Operation: Make Fit

Cross Reference: Use Cases: Add Event, Edit Event

Pre-conditions: There is an Event that has conflicts with other events

Post-condition: Given event's start and stop time is changed to reflect the start and stop time

of the conflicting events.

Contract: Push Forward

Operation: Push Forward

Cross Reference: Use Cases: Add Event, Edit Event

Pre-conditions: There is an Event that has conflicts with other events

Post-condition: All conflicting future events start and stop time are increased so that the given

event does not have conflict with them.

Contract: Push Backward

Operation: Push Backward

Cross Reference: Use Cases: Add Event, Edit Event

Pre-conditions: There is an Event that has conflicts with other events

Post-condition: All conflicting past events start and stop time are decreased so that the given

event does not have conflict with them.

Contract: Push Out

Operation: Push Out

Cross Reference: Use Cases: Add Event, Edit Event

Pre-conditions: There is an Event that has conflicts with other events

Post-condition: All conflicting future events start and stop time are increased so that the given event does not have conflict with them and all conflicting past events start and stop time are

decreased so that the given event does not have conflict with them.

Contract: Add Event

Operation: Add Event

Cross Reference: Use Cases: Add Event, Edit Event Pre-conditions: There is an event that is not in the Planner

Post-condition: The event is added to the planner and conflicting events are identified and

referenced.

Contract: Edit Event

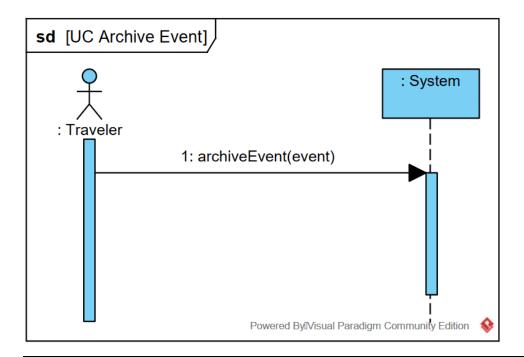
Operation: Edit Event

Cross Reference: Use Cases: Edit Event

Pre-conditions: There is an event that is in the planner

Post-condition: The the event is removed from the planner for editing and all conflict links are

removed between this and other conflicting events.



Contract: Archive Event

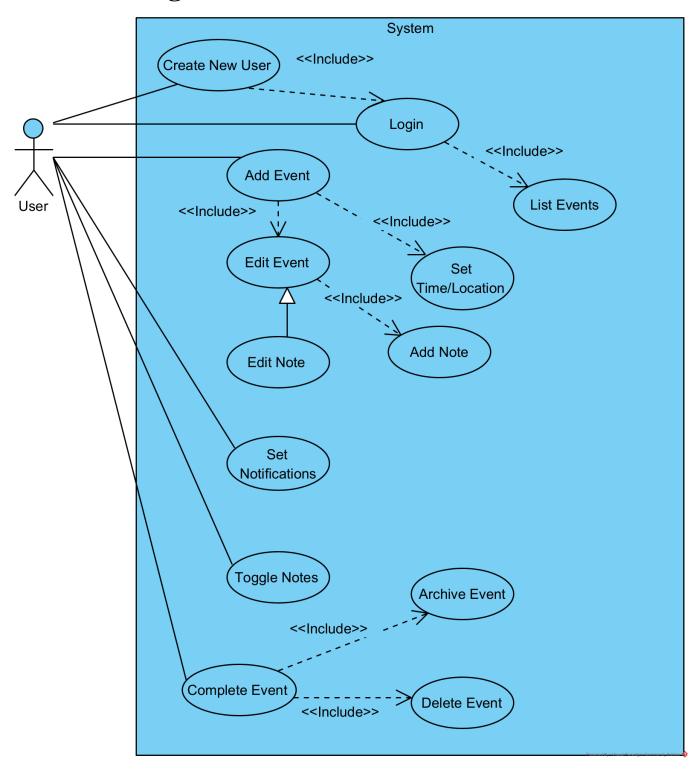
Operation: Archive Event

Cross Reference: Use Cases: Archive Event

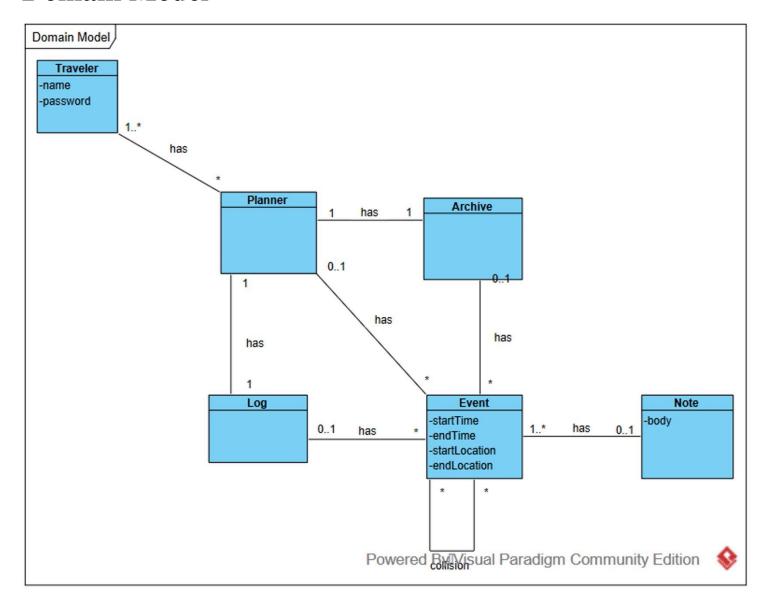
Pre-conditions: There is an event that is in the planner or log

Post-condition: The event is stored in the archive.

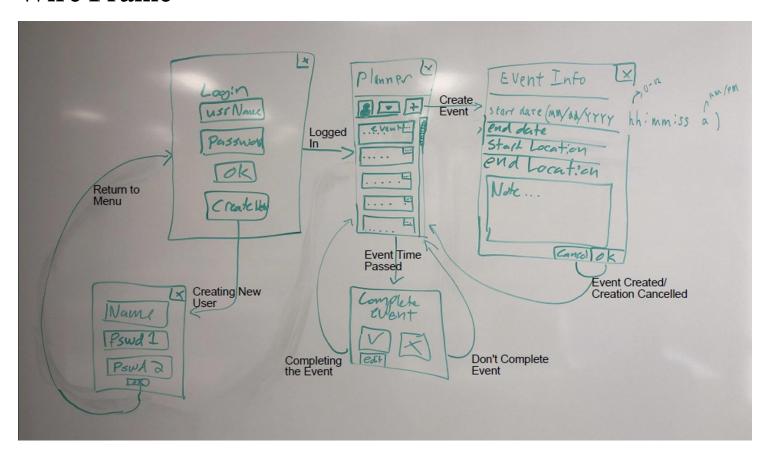
Use Case Diagram



Domain Model



Wire Frame



Gantt Diagram

Untitled Gantt Project

Aug 22, 2022

http://

3

Project manager

Project dates Aug 22, 2022 - Dec 30, 2022

Completion0%Tasks28Resources4

Tasks

Name	Begin date	End date
presentation and reporting	12/29/22	12/29/22

Tasks

Name	Begin date	End date
Analysis	8/22/22	10/18/22
project vision	8/22/22	8/25/22
team assembly	8/26/22	8/31/22
infrastructure initialization	9/1/22	9/6/22
requirements analysis	9/7/22	9/9/22
use cases	9/12/22	9/14/22
traceability matrix	9/15/22	9/19/22
system sequence diagrams	9/20/22	9/26/22
system operations	9/27/22	9/30/22
wireframes	10/3/22	10/5/22
domain model	10/6/22	10/11/22
presentation and reporting	10/12/22	10/18/22
Design	10/27/22	12/6/22
design model	10/27/22	11/1/22
sequence diagrams	11/2/22	11/7/22
package diagrams	11/8/22	11/10/22
GRAPS patterns	11/11/22	11/15/22
test coverage	11/16/22	11/21/22
prototyping	11/22/22	11/29/22
presentation and reporting	11/30/22	12/6/22
Implementation	12/7/22	12/29/22
backend	12/7/22	12/9/22
user interface	12/12/22	12/15/22
user input validation	12/16/22	12/20/22
Import/export	12/21/22	12/22/22
unit-testing	12/23/22	12/26/22
documentation	12/27/22	12/28/22

Resources

 Name
 Default role

 Analyst
 Analyst

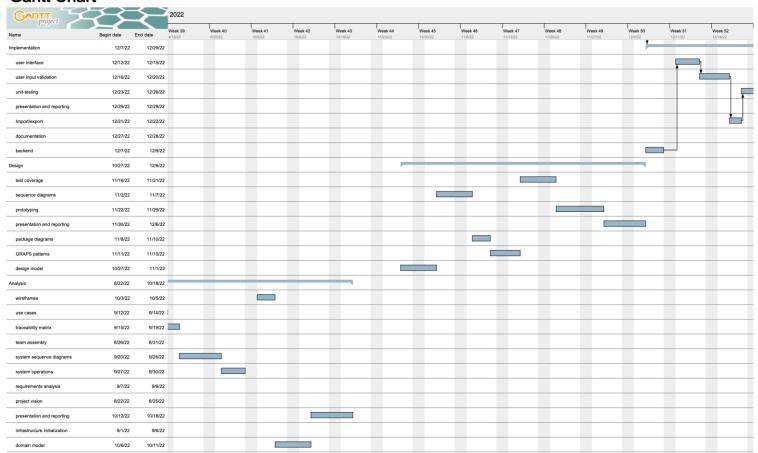
 Developer
 Developer

 Tester
 Tester

 Team Lead
 Team Lead

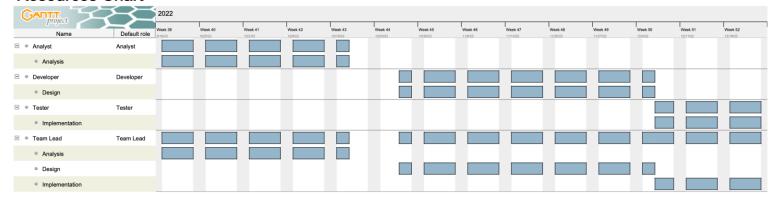
Gantt Chart

5



Resources Chart

6



Time-Card

Benjamin: hours

- Domain Diagram
- SSD
- Fully Dressed Use Case
- Wire frame
- Glossary
- Group Avatar

Bryce: hours

- Requirements
- Use Case
- SSD
- Fully Dressed Use Case

Jason: 10 hours

- System Operations
- Traceability matrix
- Fully Dressed Use Case
- Requirements
- Wire frame
- Project Planning
- Project Time Management
- SSD
- Fully Dressed Use Case
- Trello
- Project vision
- Use Case Diagram

Yutai: hours

- Gantt Diagram
- Use Case
- SSD
- Fully Dressed Use Case

Yi: 10 hours

- Website
- PPT
- Use Case
- SSD
- Fully Dressed Use Case
- Trello