
Detailed Design Document

1. Introduction:

This detailed design document provides the final detailed technical (infrastructure) specifications and design to address the needs outlined in the *Project Specification document* presented by the Course.

2. Project Overview:

This section aims at providing the reader with the details needed to understand the solution being proposed as well as the reasons for the approaches taken.

2.1 1 Objectives and General priorities:

The <Time Manager> application is provided under the specifications document. It is a tool to plan and organize your events in a timeline. All the events are displayed on a timeline, making it easy to keep track of the start and end dates for each event. With Time manager, planning and tracking projects becomes very easy and convenient too, since it keeps track of the created timelines and displayed them with the number of events

1- User Friendly	The user should be able to use the app even if he does not read the manual (navigability)
2. Functional efficiency	All requirements should be implemented i.e. create, save, or load timeline.
3-Effective error handling	All possible error should be handled in an effective way
4- The app should be fast	We should keep the app as simple as possible together with implementing all requirements.

2.2 Major Design issue and the attempted approach:

Issue 1:

Timeline Representation:

Option 1: Create a line that represents the timeline with vertical lines representing days, months, or years depending on timeline length.

Option 2: Represent the timeline as a pane, and then we add events as rectangles inside the timeline pane.

We choose the first solution because of the examples provided in the project specification document.

Issue 2:

Event Handling:

Option 1: The event is modified or deleted through pressing Delete event button in the timeline_DetailsFragment page of the app.

Option 2: The event is modified or deleted through right clicking on the event with a drop down menu.

3. Technical Design Diagram

3.1 Technical resources required:

This application is provided with the requirement that the system has an **operating system** and has *java runtime environment installed*.

3.2 Save and Load file format:

The storage of the created timelines is done in .xml format and provides the user with the ability to keep his planned projects to be loaded in the future.

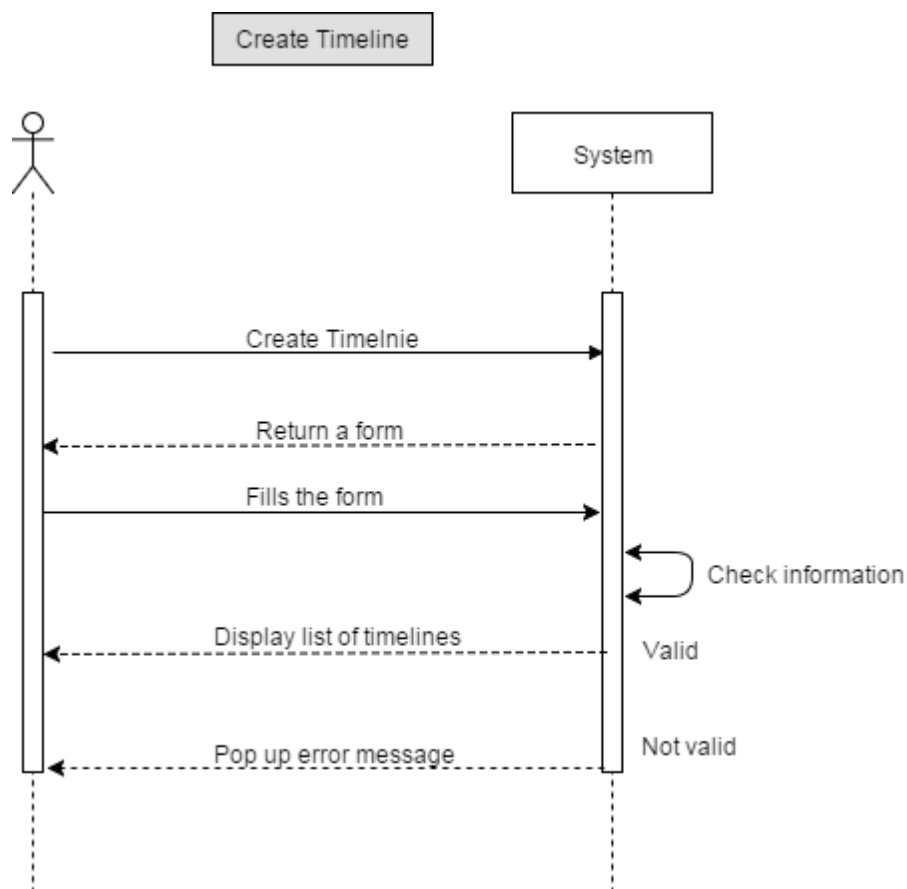
the system *does not check for previously created timelines* hence to load previous project one has to click the load button and specify the time manager xml file.

3.3 Technical Specifications

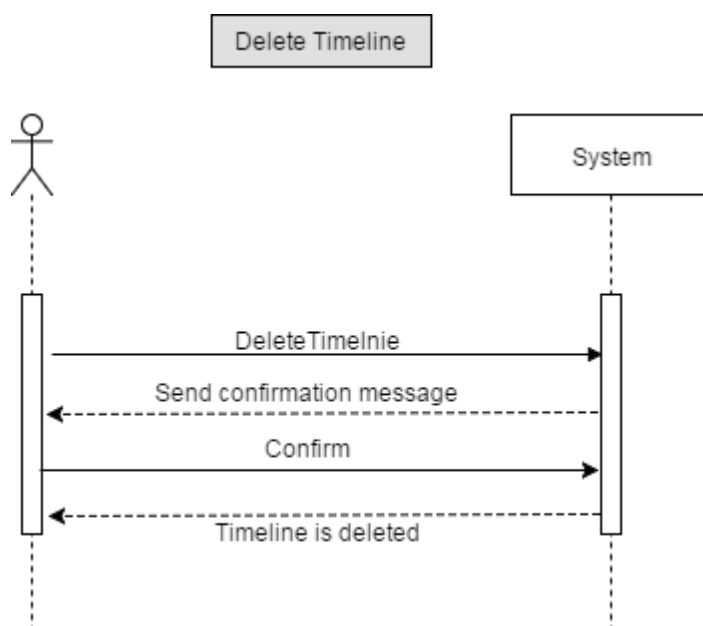
Time manager's logical flow is presented in the next subsection with sequence diagrams as well as the activity diagrams provided in this delivery folder.

Sequence Diagram:

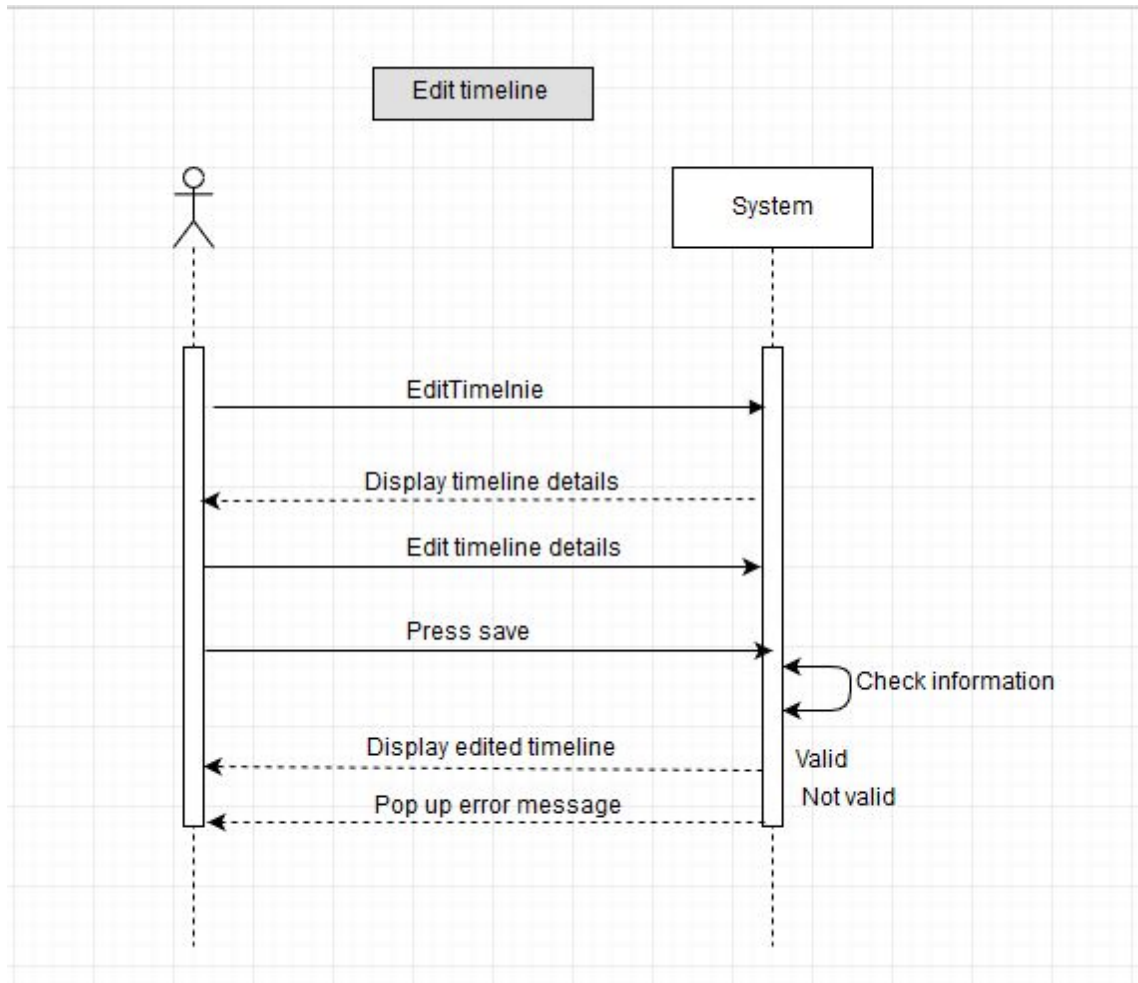
Create timeline:



Delete timeline:

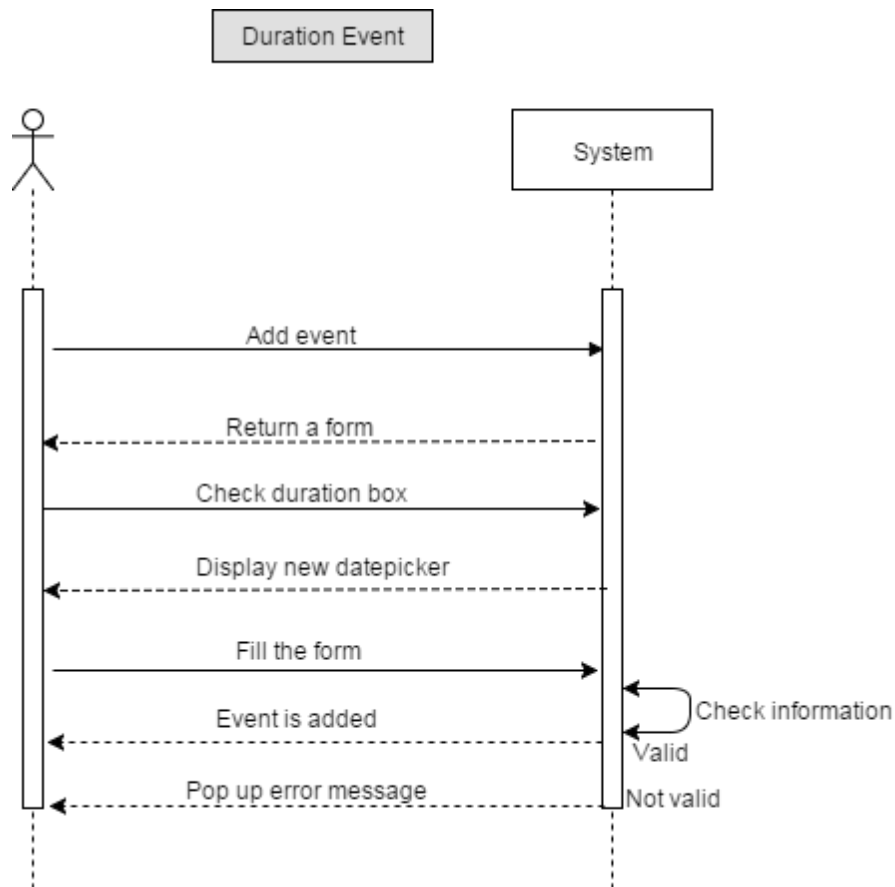


Edit Timeline



Create a Non-Durational Event:

Create Durational Event



Delete Event:

