

# 1DV508 - Project Course in Computer Science

## Analysis and Requirements

### Project description:

The goal of the project is to create a timeline management application. It should contain an edit mode, and a display mode for viewing, adding, deleting, and modifying timelines containing “events” that have a time and may or may not have a duration.

### Project Members(7):

Hägg Robin (Project manager)

Dirnfeld Ruth

Charo John Elie

Madou Idris

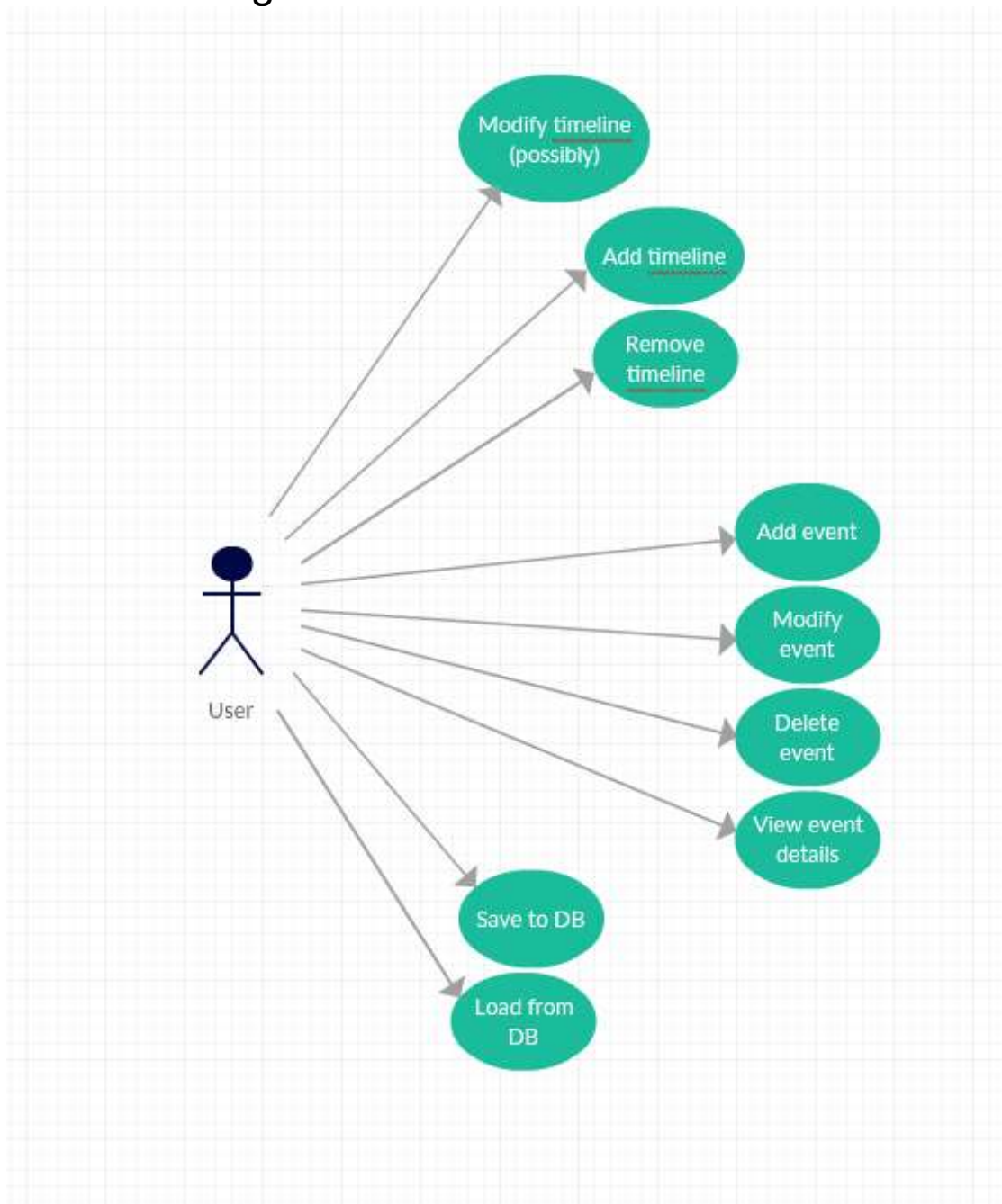
Lee Su In

Meng Chaoran

Huang Tianyi

Github repository: <https://github.com/rd222dv/Project>

Use-case diagram:



## Use-case specifications:

### Use Case 1.1

<b>Title</b>	<b>Add timeline</b>
<b>Actors</b>	User.
<b>Description</b>	The User has installed the timeline app, chooses to add a timeline and saves it afterwards.
<b>Preconditions</b>	Has the timeline app.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. Clicks on the “new timeline” button.</li><li>2. User enters details in displayed fields (name, start time, end time).</li><li>3. Clicks save.</li><li>4. Timeline is added and shown in the app.</li></ol>
<b>Alternative flow</b>	<ol style="list-style-type: none"><li>1. If the user clicks cancel instead of saving:<ul style="list-style-type: none"><li>• The operation (adding a timeline) is canceled, and the default screen is shown without being changed.</li></ul></li><li>2. The use case ends unsuccessfully.</li></ol>
<b>Postcondition</b>	The timeline was successfully added and displayed.
<b>Exceptions</b>	Validate range, end cannot be before start.

## Use Case 1.2

<b>Title</b>	<b>Modify timeline</b>
<b>Actors</b>	User.
<b>Description</b>	The User has installed the timeline app, chooses to modify the timeline and saves it afterwards.
<b>Precondition</b>	Has the timeline application.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. Clicks on the “modify timeline” button.</li><li>2. User modifies what they want.</li><li>3. Clicks save.</li><li>4. Modified timeline is shown.</li></ol>
<b>Alternative flow</b>	<ol style="list-style-type: none"><li>1. If the user clicks cancel instead of saving:<ul style="list-style-type: none"><li>• The operation (modifying a timeline) is canceled, and the default screen is shown without being changed.</li></ul></li><li>2. The use case ends unsuccessfully.</li></ol>
<b>Postcondition</b>	The timeline was successfully modified.
<b>Exceptions</b>	Validate range, end cannot be before start.

### Use Case 1.3

<b>Title</b>	<b>Delete timeline</b>
<b>Actors</b>	User.
<b>Description</b>	The User has installed the timeline app and chooses to remove the timeline.
<b>Preconditions</b>	Has the timeline app.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. Clicks on the “remove timeline” button.</li><li>2. Are you sure you want to delete this timeline + Yes or No options pop up.</li><li>3. Confirm to delete.</li><li>4. Timeline is deleted.</li></ol>
<b>Alternative flow</b>	<ol style="list-style-type: none"><li>1. If the user clicks cancel instead of deleting:<ul style="list-style-type: none"><li>• The operation (removing a timeline) is canceled, and the default screen is shown without being changed.</li></ul></li><li>2. The use case ends unsuccessfully.</li></ol>
<b>Postcondition</b>	The timeline was successfully deleted.
<b>Exceptions</b>	None.

## Use Case 2.1

<b>Title</b>	<b>Add event</b>
<b>Actors</b>	User.
<b>Description</b>	The User has installed the timeline app and chooses to add an event to the timeline.
<b>Preconditions</b>	Has the timeline app.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. Opens a timeline.</li><li>2. Clicks on the “new event” button.</li><li>3. User enters details in displayed fields (title / text / duration).</li><li>4. Clicks save.</li><li>5. Modified timeline is shown.</li></ol>
<b>Alternative flow</b>	<ol style="list-style-type: none"><li>1. If the user clicks cancel instead of saving:<ul style="list-style-type: none"><li>• The operation (adding event) is canceled, and the event is not added to the Timeline.</li></ul></li></ol>
<b>Postcondition</b>	The timeline was successfully modified and the event added.
<b>Exceptions</b>	Validate range, end cannot be before start.

## Use Case 2.2

<b>Title</b>	<b>Modify event</b>
<b>Actors</b>	User.
<b>Description</b>	The User has installed the timeline app and chooses to modify an event in the timeline.
<b>Preconditions</b>	It has the timeline app and created an event.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. Clicks on the “modify event” button.</li><li>2. User modifies details in displayed fields (modify title / text / duration).</li><li>3. Clicks save.</li><li>4. Modified timeline is shown.</li></ol>
<b>Alternative flow</b>	<ol style="list-style-type: none"><li>1. If the user clicks cancel instead of modifying:<ul style="list-style-type: none"><li>• The operation (modify event) is canceled, and the event is not modified.</li></ul></li></ol>
<b>Postcondition</b>	The event was successfully modified in the timeline.
<b>Exceptions</b>	Validate range, end cannot be before.

## Use Case 2.3

<b>Title</b>	<b>Delete event</b>
<b>Actors</b>	User.
<b>Description</b>	The User has installed the timeline app and chooses to delete an event from the timeline.
<b>Preconditions</b>	It has the timeline app and created an event.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. Clicks on the “delete event” button.</li><li>2. Are you sure you want to delete this event + Yes or No options pop up.</li><li>3. Clicks delete.</li><li>4. The event was deleted.</li></ol>
<b>Alternative flow</b>	<ol style="list-style-type: none"><li>1. If the user clicks cancel instead of deleting:<ul style="list-style-type: none"><li>• The operation (removing an event) is canceled, and the timeline is shown without being changed.</li></ul></li><li>2. The use case ends unsuccessfully.</li></ol>
<b>Postcondition</b>	The event was successfully deleted from the timeline.
<b>Exceptions</b>	None.



### Use Case 3

<b>Title</b>	<b>View event details</b>
<b>Actors</b>	User.
<b>Description</b>	The User has installed the timeline app and chooses to view the event details.
<b>Preconditions</b>	It has the timeline app and created an event.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. Clicks on the event.</li><li>2. Details are displayed (title/ text / duration).</li></ol>
<b>Alternative flow</b>	<ol style="list-style-type: none"><li>1. Empty event selected:<ul style="list-style-type: none"><li>• The use case ends unsuccessfully.</li></ul></li><li>2. No event selected:<ul style="list-style-type: none"><li>• timeline stays displayed.</li><li>• the use case ends unsuccessfully.</li></ul></li></ol>
<b>Postcondition</b>	The event was successfully displayed.
<b>Exceptions</b>	None.

## Use Case 4.1

<b>Title</b>	<b>Save to file</b>
<b>Actors</b>	User.
<b>Description</b>	saving info to the file
<b>Preconditions</b>	App is open
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. Press save.</li><li>2. Select where to save.</li><li>3. Click ok.</li></ol>
<b>Postcondition</b>	The file has been written.
<b>Exceptions</b>	None.

## Use Case 4.2

<b>Title</b>	<b>Load from file</b>
<b>Actors</b>	User.
<b>Description</b>	loading info from the file.
<b>Preconditions</b>	App is open.
<b>Main flow</b>	<ol style="list-style-type: none"><li>1. Press load (verify that you really want to load if there has been changes in the timeline already open).</li><li>2. Select where to load from.</li><li>3. Click ok.</li></ol>
<b>Postcondition</b>	Timelines and events have been loaded from file and are displayed in the app.
<b>Exceptions</b>	None.

# Requirements

## Edit Mode - Timelines

ID	
<b>A1</b>	Add a new timeline with start and end time
<b>D1</b>	Delete a complete timeline
<b>M1</b>	Modify a timeline (might bring problems with start/end time and events that are outside the new range of the timeline, requirement might be dropped)

## Edit Mode - Events

ID	
<b>A2</b>	Add event to timeline (with title, description and time)
<b>A2.1</b>	Add non-duration event to timeline
<b>A2.2</b>	Add event with duration to timeline
<b>D2</b>	Delete event on a timeline
<b>M2</b>	Modify title, description, time for any event

## Display Mode

ID	
V1	All timelines shown simultaneously including events
V2	Event titles should be visible
V3	Duration events should take up space corresponding to their duration on the timeline
V4	Clicking on an event should bring up a pop-up with all details
V5	The user shall be able to scroll horizontally and/or vertically if all timelines cannot fit in the display window.

## General

ID	
G1	Save and load timelines
G2	Data persistence through SQL db or a simple file (CSV or similar)