

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

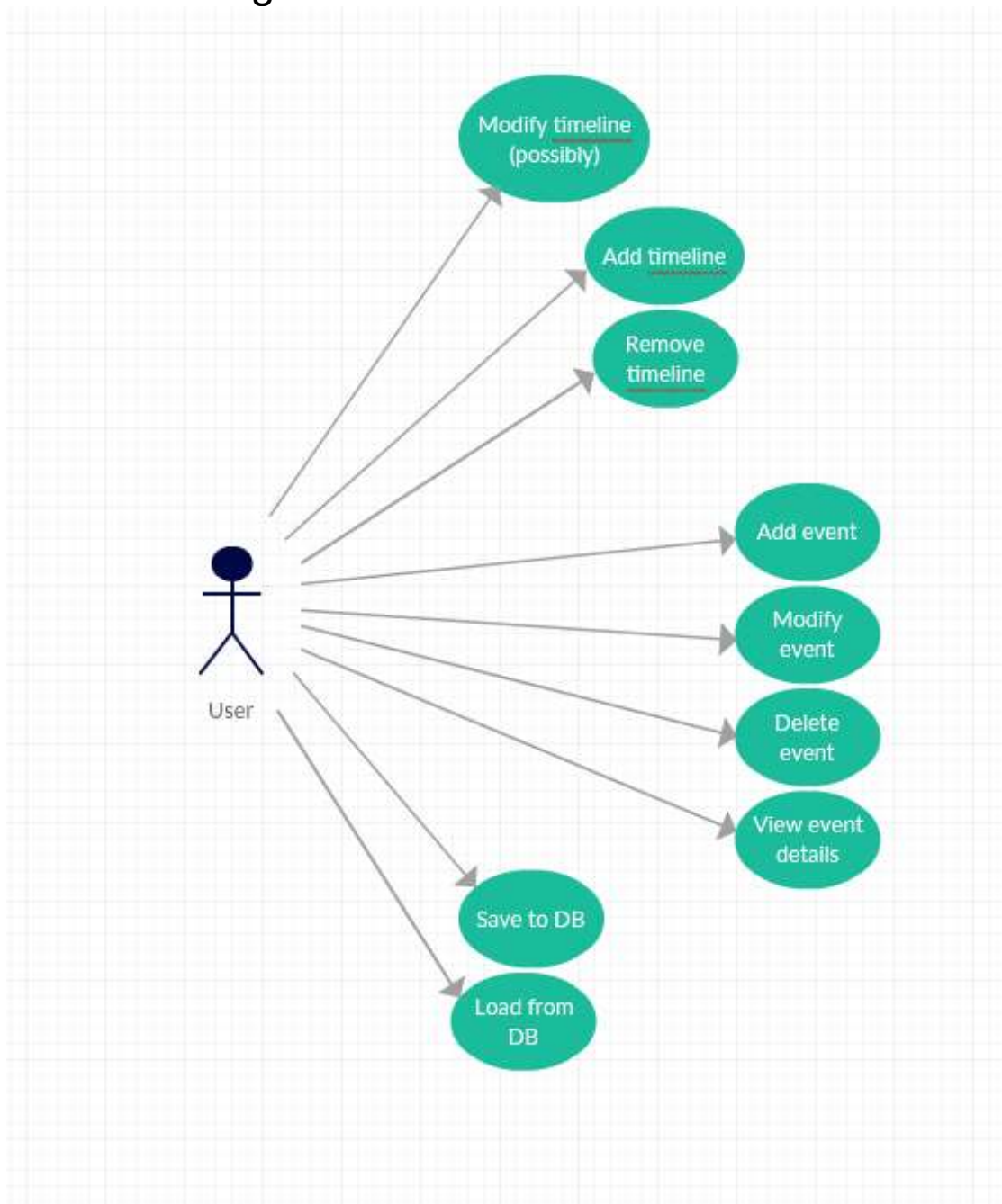
Lee Su In

Meng Chaoran

Huang Tianyi

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

Use-case diagram:



Use-case specifications:

Use Case 1.1

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

Use Case 1.2

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

Use Case 1.3

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

Use Case 2.1

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

Use Case 2.2

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

Use Case 2.3

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

Use Case 3

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

Use Case 4.1

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

Use Case 4.2

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

Requirements

Edit Mode - Timelines

ID	
A1	Add a new timeline with start and end time
D1	Delete a complete timeline
M1	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	
A2	Add event to timeline (with title, description and time)
A2.1	Add non-duration event to timeline
A2.2	Add event with duration to timeline
D2	Delete event on a timeline
M2	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)