

Test Plan

Timeline-Manager

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1. Introduction

The Test Plan contains of five test phases that are located within the iterations, meaning that each iteration also has a test phase where new tests are created for the implementations for that specific iteration. But aside from the new tests all the previous tests are also performed to ensure that changes within the implementation has not affected the functionality of previous implementations.

The main goal with the tests are to ensure functionality to all requirements given by the stakeholder but also to find flaws or other errors that might need to be fixed by the developers.

2. Objectives

The purpose of the Test Plan is to clarify the Test-Cases and give structure to the Test-Phases. Another important purpose of the Test Plan is to have an overview of passed and failed tests and to clarify what the goal of the tests are.

3. Scope

The tests performed on the Timeline-Manager is both JUnit testing (automated-testing) and Manual-Testing (done by interacting with the application). The JUnit tests are created for logics and models while Manual-Testing is used for the User-Interface (buttons, popup windows, etc.). Each iteration a member of the group will be responsible for the tests and in each test-phase the following will be performed by the Tester:

- Test-Cases (New implementations)
- Overview previous Test-Cases
- Implement JUnit tests
- Perform Manual-tests and JUnit tests
- Update Test-Log

Test Class	Test-Case	Step
ApplicationControlTest	-	-
ApplicationTest	001 002 003 (Set/Get) no Test-Case	6, 7 6 7
TimelineControlTest	001 006	1, 2, 3, 4, 5, 6, 7 1, 2
TimelineTest	(Set/Get) no Test-Case	
EventControlTest	002 003 004 005 007	1, 2, 3, 4, 5, 6 1, 2, 3, 4, 5, 6, 7 1, 2, 3, 4, 5, 6 1, 2, 3, 4, 5, 6, 7, 8 1
EventTest	(Set/Get) no	

	Test-Case	
FileHandlerTest	008	1, 2
Manual-Tests	001	8, 9, 10, 11
	002	7, 8, 9, 10, 11
	003	8, 9
	004	7, 8, 9
	005	9
	006	3, 4, 5, 6
	007	2, 3, 4, 5
	008	3, 4, 5
	009	1, 2, 3, 4, 5

4. Strategy

The approach in testing the requirements functionality will mainly be dynamic but in addition to the dynamic tests the group has online code-review meetings. At these meetings, the group members perform static tests and feedback regarding the implementation is given to the developer. Each developer also performs static analysis on their own implementation to find errors and mistakes along with raising issues for discussion within the group. The dynamic tests will be created during the specific iteration for intended implementation, but in order to prevent changes that flaws the functionality all tests will be performed again after each finished iteration.

5. Test-Log

After each finished iteration the developer responsible for the tests run the tests for all implemented code and update the pass/fail status. Failed tests will be stated in the tabular below for easy access in next iteration.

Tester	Test-Cases ID	Failed Tests	Test-Phase
Pranav Patel	001	-	#1
Johan Eriksson	002, 003	-	#1
Indre Kvedaraite	004, 005	-	#2
Caroline Nilsson	006, 007, 008	001 - 11 002 - 11 003 - 9 004 - 9 005 - 10 006 - 1 008 - 3	#3
Stefanos Bampovits	009	001 - 11	#4
Aya Kathem	010	006 - 1	#5
Indre Kvedaraite	-	-	#6

6. Requirements

- Access to GitHub repository: Group7-1DV508/1DV508-group7
- Access to GitHub repository: Group7-1DV508/1DV508-group7-docs
- Experience/knowledge of working with JUnit

7. Risk

In order to prevent negative impacts on the project following risks have been evaluated and actions have been taken to mitigate project impacts. In the tabular below the risks and how these risks might affect the project along with group efforts to minimize the negative impacts on the project.

Risk:	Impact on Project:	Mitigation:
Misunderstandings regarding tasks or implementation within the group	Implementation delay	Have an open dialog within the group during the development process.
Changes made to the already tested implementations	Functionality flaws and errors	All tests are performed at the end of each iteration.
Insufficient tests	Hidden errors within the application. Requirements not fulfilled	Group code-review meetings where implementations, JUnit tests and Test-Cases are reviewed by the group and feedback is given.

8. Tabular (Test-Cases)

8.1. Test-Case: Add Timeline

Add Timeline	
Test Case ID: 001	Test Designed by: Pranav Patel
Test Priority(High/Med/Low): High	Test Designed Date: 2017/04/19
Test Title: Add Timeline	Test Executed by: Pranav Patel
Description: Add a Timeline to the application	Test Executed Date: 2017/04/19

Pre-conditions: App object initialized (application running)
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Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Add timeline with correct name, start and end dates	Timeline object, string, LocalDateTime variable, LocalDateTime variable	Method returns true, timeline added	Method returned true, timeline added to timeline list	Pass	JUnit-Test
2	Add timeline with incorrect input for name, start and end dates	Timeline object, string, LocalDateTime variable, LocalDateTime variable	Method returns false, timeline not added	Method returned false, timeline was not added to timeline list	Pass	JUnit-Test
3	Check if added timeline has correct name	Timeline object, string	Method returns correct name	Method returned correct name	Pass	JUnit-Test
4	Check if added timeline has correct start date	Timeline object, LocalDateTime variable	Method returns correct start date	Method returned correct start date	Pass	JUnit-Test
5	Check if added timeline has correct end date	Timeline object, LocalDateTime variable	Method returns correct end date	Method returned correct end date	Pass	JUnit-Test
6	Check if added timeline is "current"	Timeline object, String, LocalDateTime, LocalDateTime	Method returns name, start date and end date of newly added Timeline	Method returned name, start and end date of newly added timeline	Pass	JUnit-Test
7	Check if the ChangeListene r is called	Timeline object, String, LocalDateTime	Variable = true	Variable was true	Pass	JUnit-Test

	when timeline is added	, LocalDateTime				
8	Add Timeline window	"Add Timeline" Button	When "Add Timeline" is clicked window shows	Popup window did show	Pass	Manual-Test
9	Add Timeline window	TextFields	Add Timeline window has TextFields for name, start and end year	Window has TextFields for name, start and end year	Pass	Manual-Test
10	Add Timeline	String, String, String (correct input)	Visual Timeline is shown	Visual Timeline was shown	Pass	Manual-Test
11	Add Timeline	Incorrect years	Alert window shows	Alert window shown, no new timelines created	Pass	Manual-Test

8.2. Test-Case: Add Event

Add Event	
Test Case ID: 002	Test Designed by: Johan Eriksson
Test Priority(High/Med/Low): High	Test Designed Date: 2017/04/15
Test Title: Add Event	Test Executed by: Johan Eriksson
Description: Add Event with name, description and start date.	Test Executed Date: 2017/04/15

Pre-conditions: Timeline is created

Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Add event with correct input for name, description and date	Event object, string, string, LocalDateTime variable	Method returns true, event added to timeline's	Method returned true, event was added to event list	Pass	JUnit-Test
2	Add event with incorrect input for name, description and date	Event object, string, string, LocalDateTime variable	Method returns false, event not added	Method returned false, event was not added to event list	Pass	JUnit-Test
3	Check if added event has correct name	Event object, string	Method returns correct name	Method returned correct name	Pass	JUnit-Test
4	Check if added event has correct description	Event object, string	Method returns correct description	Method returned correct description	Pass	JUnit-Test
5	Check if added event has correct date	Event object, LocalDateTime variable	Method returns correct date	Method returned correct date	Pass	JUnit-Test
6	Check if ChangeListene r is called when Event is added	Event object, string, string, LocalDateTime variable	Variable = true	Variable was true	Pass	JUnit-Test
7	No Timeline open, Add Event	"Add Event" Button	Button disabled	Button disabled	Pass	Manual-Test
8	Timeline open, Add Event	"Add Event" Button	Add Event window shows	Add Event window shows	Pass	Manual-Test
9	Add Event Window, TextFields	Add Event Window	Has TextFields for name,	Has TextFields for name,		Manual-Test

			description, start and end date. ComboBox for time	description, start and end date. ComboBox for time	Pass	
10	Add Event	Name, Description, Start date, Time (correct input)	Event circle show up at the correct spot in the Timeline	Event circle show up at the correct spot in the Timeline	Pass	Manual- Test
11	Add Event	Incorrect input	Alert message shown	Alert message shown, no event is created	Pass	Manual - Test

8.3. Test-Case: Add Duration Event

Add Duration Event	
Test Case ID: 003	Test Designed by: Johan Eriksson
Test Priority(High/Med/Low): High	Test Designed Date: 2017/04/15
Test Title: Add Duration Event	Test Executed by: Johan Eriksson
Description: Add event with name, description, start and end date	Test Executed Date: 2017/04/15

Pre-conditions: Timeline is created

Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Add event with correct input for name, description, start and end dates	Event object, string, string, LocalDateTime variable, LocalDateTime variable	Method returns true, event added to timeline's	Method returned true, event was added to event list	Pass	JUnit-Test
2	Add event with incorrect input for name, description, start and end dates	Event object, string, string, LocalDateTime variable, LocalDateTime variable	Method returns false, event not added	Method returned false, event was not added to event list	Pass	JUnit-Test
3	Check if added event has correct name	Event object, string	Method returns correct name	Method returned correct name	Pass	JUnit-Test
4	Check if added event has correct description	Event object, string	Method returns correct description	Method returned correct description	Pass	JUnit-Test
5	Check if added event has correct start date	Event object, LocalDateTime variable	Method returns correct start date	Method returned correct start date	Pass	JUnit-Test
6	Check if added event has correct end date	Event object, LocalDateTime variable	Method returns correct end date	Method returned correct end date	Pass	JUnit-Test
7	Check if ChangeListene r is called when Event is added	Event object, string, string, LocalDateTime variable	Variable = true	Variable was true	Pass	JUnit-Test
8	Add Event	Name, Description, Start date, Start time, End date,	Event circle show up at the correct spot in the	As expected	Pass	Manual-Test

		End time (correct input)	Timeline and duration bar shows when circle is hovered			
9	Add Event	Incorrect input	Alert message show	Alert message shown, no event is created	Pass	Manual -Test

8.4. Test-Case: Edit Event

Edit Event	
Test Case ID: 004	Test Designed by: Indre Kvedaraite
Test Priority(High/Med/Low): High	Test Designed Date: 2017/04/22
Test Title: Edit Event	Test Executed by: Indre Kvedaraite
Description: Editing existing event, changing its name, date and description	Test Executed Date: 2017/04/22

Pre-conditions: Timeline and Event is created

Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Edit event's name with correct input	Event object, string	Method returns true, event's name is changed	Method returned true, event's name changed	Pass	JUnit-Test
2	Edit event's description with correct input	Event object, string	Method returns true, event's description changed	Method returned true, event's description changed	Pass	JUnit-Test
3	Edit event's date with correct input	Event object, LocalDateTime variable	Method returns true, event's date changed	Method return true, event's date changed	Pass	JUnit-Test
4	Edit event's name with empty string	Event object, empty or null string	Method returns false, event's name not changed	Method returned false, event's name was not changed	Pass	JUnit-Test
5	Edit event's description with empty string	Event object, empty or null string	Method returns false, event's description not changed	Method returned false, event's description was not changed	Pass	JUnit-Test
6	Edit event's date with empty LocalDateTime variable	Event object, null LocalDateTime variable	Method returns false, event's date not changed	Method returned false, event's date was not changed	Pass	JUnit-Test
7	Event Information	Event Circle	When Event Circle is clicked a window with the	Window with the Event information shows	Pass	Manual-Test

			Event information shows			
8	Event Information Window	"Edit" Button	When "Edit" is clicked, TextFields become editable	TextFields become editable	Pass	Manual-Test
9	Edit Event	Event View	When Event is edited, circle placement, and information is updated	Event edited successfully, able to switch between duration and non duration, event placed correctly	Pass	Manual-Test

8.5. Test-Case: Edit Duration Event

Edit Duration Event	
Test Case ID: 005	Test Designed by: Indre Kvedaraite
Test Priority(High/Med/Low): High	Test Designed Date: 2017/04/22
Test Title: Edit Duration Event	Test Executed by: Indre Kvedaraite
Description: Editing existing event, changing its name, start and end dates and description	Test Executed Date: 2017/04/22

Pre-conditions: Timeline and Event is created

Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Edit event's name with correct input	Event object, string	Method returns true, event's name is changed	Method returned true, event's name changed	Pass	JUnit-Test
2	Edit event's description with correct input	Event object, string	Method returns true, event's description changed	Method returned true, event's description changed	Pass	JUnit-Test
3	Edit event's start date with correct input	Event object, LocalDateTime variable	Method returns true, event's start date changed	Method returned true, event's start date changed	Pass	JUnit-Test
4	Edit event's end date with correct input	Event object, LocalDateTime variable	Method returns true, event's end date changed	Method returned true, event's end date changed	Pass	JUnit-Test
5	Edit event's name with empty string	Event object, null or empty string	Method returns false, event's name not changed	Method returned false, event's name didn't change	Pass	JUnit-Test
6	Edit event's description with empty string	Event object, null or empty string	Method returns false, event's description not changed	Method returned false, event's description didn't change	Pass	JUnit-Test
7	Edit event's start date with empty LocalDateTime variable	Event object, null LocalDateTime variable	Method returns false, event's start date not changed	Method returned false, event's start date didn't change	Pass	JUnit-Test
8	Edit event's end date with	Event object, null	Method returns false,	Method returned	Pass	JUnit-Test

	empty LocalDateTim e variable	LocalDateTim e variable	event's end date not changed	false, event's end date didn't change		
9	Edit Event	Event View	When Event is edited, circle placement, duration bar and information is updated	When Event is edited, circle placement, duration bar and information is updated	Pass	Manual -Test
10	Edit Event	Incorrect input	Alert Window	Alert shown, no event is created before or after timeline	Pass	Manual -Test

8.6. Test-Case: Delete Timeline

Delete Timeline	
Test Case ID: 006	Test Designed by: Caroline Nilsson
Test Priority(High/Med/Low): Medium	Test Designed Date: 2017/05/01
Test Title: Delete Timeline	Test Executed by: Caroline Nilsson
Description: Delete an existing timeline from both the Timeline Manager and the XML-File if the Timeline has been saved.	Test Executed Date: 2017/05/02

Pre-conditions: Timeline and Event is created

Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Delete saved Timeline	Timeline	Timeline is removed from ArrayList of open timelines, XML-File is deleted	Timeline was removed from ArrayList of open timelines and XML file of that timeline was deleted	Pass	JUnit-Test
2	Delete non-saved Timeline	Timeline	Timeline is removed from ArrayList with open timelines	Timeline was removed from ArrayList	Pass	JUnit-Test
3	Delete Timeline: confirmation window	“Delete Timeline” Button	When clicked a confirmation popup window show	Confirmation window shows	Pass	Manual-Test
4	Confirmation window (Timeline), Buttons	Confirmation window: “Ok” Button	When “Ok” is clicked the timeline is deleted and does not show to the user.	“Ok” = timeline deleted	Pass	Manual-Test
5	Confirmation window (Timeline), Cancel Button	Confirmation window: “Cancel” Button	When “Cancel” is clicked timeline resumes before delete button was clicked	“Cancel” = resumes at timeline	Pass	Manual-Test
6	Delete		When a	Timeline is		

	Timeline (View Update)		timeline is deleted the View shall not contain the timeline	removed from the View (empty if no timelines are open otherwise the first one shows)	Pass	Manual- Test
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8.7. Test-Case: Delete Event

Delete Event	
Test Case ID: 007	Test Designed by: Caroline Nilsson
Test Priority(High/Med/Low): Medium	Test Designed Date: 2017/05/01
Test Title: Delete Event	Test Executed by: Caroline Nilsson
Description: Delete an Event from Timeline.	Test Executed Date: 2017/05/02

Pre-conditions: Timeline and Event is created

Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Delete Event from timeline	Event	Event is removed from timeline ArrayList of events	Event was removed from ArrayList	Pass	JUnit-Test
2	Delete Event confirmation window	Delete event button	When delete event is clicked, a confirmation window shows to the user	Confirmation window shows to the user	Pass	Manual-Test
3	Confirmation Window (Event) Buttons	Confirmation Window: "Ok" Button	When "Ok" is clicked the event is deleted,	"Ok" = event deleted	Pass	Manual-Test
4	Confirmation Window (Event) Buttons	Confirmation Window: "Cancel" Button	When "Cancel" is clicked resumes at event information window	"Cancel" = resume at event information	Pass	Manual-Test
5	Event Deleted (View Update)		When event has been deleted, it no longer shows to the user and remaining events are aligned properly	Event is no longer visible. Remaining events are aligned correctly	Pass	Manual-Test

8.8. Test-Case: Save and Load Timeline

Save & Load Timeline	
Test Case ID: 008	Test Designed by: Caroline Nilsson
Test Priority(High/Med/Low): Medium	Test Designed Date: 2017/05/01
Test Title: Save and Load Timeline	Test Executed by: Caroline Nilsson
Description: Saving a Timeline and the Events belonging to the Timeline. Load Timeline from XML-file	Test Executed Date: 2017/05/01

Pre-conditions: Timeline and Event is created

Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Save timeline to an XML-file	Timeline, File	XML-File contains Timeline and Events belonging to the Timeline	XML-File contains the saved Timeline and Events	Pass	JUnit-Test
2	Load timeline from an XML-file	File	Timeline with correct input is created	Timeline has been created from XML-File with correct input for Timeline and Events	Pass	JUnit-Test
3	Save timeline, interrupted by pressing cancel in FileChooser	Timeline, File = null	No alert window, no exception	No alert window	Pass	Manual-Test
4	Load timeline with incorrect File path	File = non XML-File	Can't pick file without .xml	Not able to choose files except XML-File	Pass	Manual-Test
5	Load timeline with correct File path	File	Timeline and Events shows to the user	Loaded timeline is added to the view.	Pass	Manual-Test

8.9. Test-Case: General view

General view	
Test Case ID: 009	Test Designed by: Stefan Bampovits
Test Priority(High/Med/Low): Medium	Test Designed Date: 2017/05/07
Test Title: General view	Test Executed by: Stefan Bampovits
Description: The general view once the application is started	Test Executed Date: 2017/05/08

Pre-conditions: None

Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Run application by executing jar file	Main UI window	The application starts successfully by displaying main UI	Main UI is displayed	Pass	Manual - Test
2	Check main UI window buttons	“Add Timeline” “Delete timeline” “Add event” “Load Timeline” “Save Timeline”	Add, delete, save timeline and add event buttons are located in main UI and displayed	All buttons have been displayed correctly	Pass	Manual - Test
3	Check Main UI Window Help Button View and Functionality	“ ? ” Button	The “ ? ” (Help) Button is displayed in the Main UI Window and opens a new window when button is clicked	The button is displayed correctly and opens a new window successfully	Pass	Manual-Test
4	Check Main UI Window Timeline ComboBox View and Functionality	“Choose Timeline” ComboBox	ComboBox is displayed in the Main UI Window and displays a new timeline when one of the timelines is loaded	The ComboBox is displayed and works successfully	Pass	Manual-Test
5	Check Main UI	“ScrollTimeline”	The ScrollPane is located	The ScrollPane	Pass	Manual-Test

	Window ScrollPane	ScrollPane	in the Main UI Window and displays a current “default” timeline with events	is displayed and is functioning		
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8.10. Test-Case: Save edited Timeline and General view 2

Save Edited Timeline & General view2	
Test Case ID: 010	Test Designed by: Aya Kathem
Test Priority(High/Med/Low): Medium	Test Designed Date: 2017/05/015
Test Title: Manual test 2	Test Executed by: Aya Kathem
Description: General view, save the edited timeline to the same xml file and display the circle in Timeline when Event Created	Test Executed Date: 2017/05/17

Pre-conditions: None

Step	Test Steps	Test Data	Expected Result	Actual Result	Status(Pass/Fail)	Notes
1	Save the Edited Timeline to the same saved file path.	Timeline	Save the edit timeline into the same saved file path without opening file chooser.	Timeline is saved properly without opening file chooser	Pass	Manual-Test
2	Confirmation window for edit a Timeline that already have a file path.	Save edited Timeline Confirmation window	When you click on Save, a confirmation window show up tell the user the process is succeeded.	The confirmation window showed up to let the user know that file was saved successfully	Pass	Manual-Test
3	CheckBox for delete Timeline with xml file.	Delete Timeline Confirmation window	Click on CheckBox to confirm delete timeline with the Xml file.	Checkbox existed, was clickable when timeline had file associated with it	Pass	Manual-Test
4	Create events in same day with different hour.	Event	Create a duration event in the same day with a different hour.	Duration event created with same day, different hour	Pass	Manual-Test
5	Add event on the last day of month	Timeline interface	A circle shows up when zooming into days	The event circle shows up when zoomed into days	Pass	Manual-Test
6	Zoom into days and add event	Timeline interface	Event Circle adds to Timeline without any	Event circle is added to the correct day	Pass	Manual-Test

			problem.			
7	Bar of duration event	Timeline interface	The bar should fit to the size of month rectangle.	Bar fits all the days	Pass	Manual-Test
8	Add event button shows up within Timeline	Timeline interface	Add event button still shows up when scrolling the timeline.	Add event button is always visible	Pass	Manual-Test