Requirements and Analysis Document

by group 29

1. Introduction

This is a android mobile application named Timeline. It's purpose is to keep track of the current studies at Chalmers and thereby help students to be productive. It's main features is a monthly/weekly calendar, overviewing deadlines on a timeline, setting a weekly study goal and keep track of the goal by using a stopwatch and timers. Schedule is imported through TimeEdit.
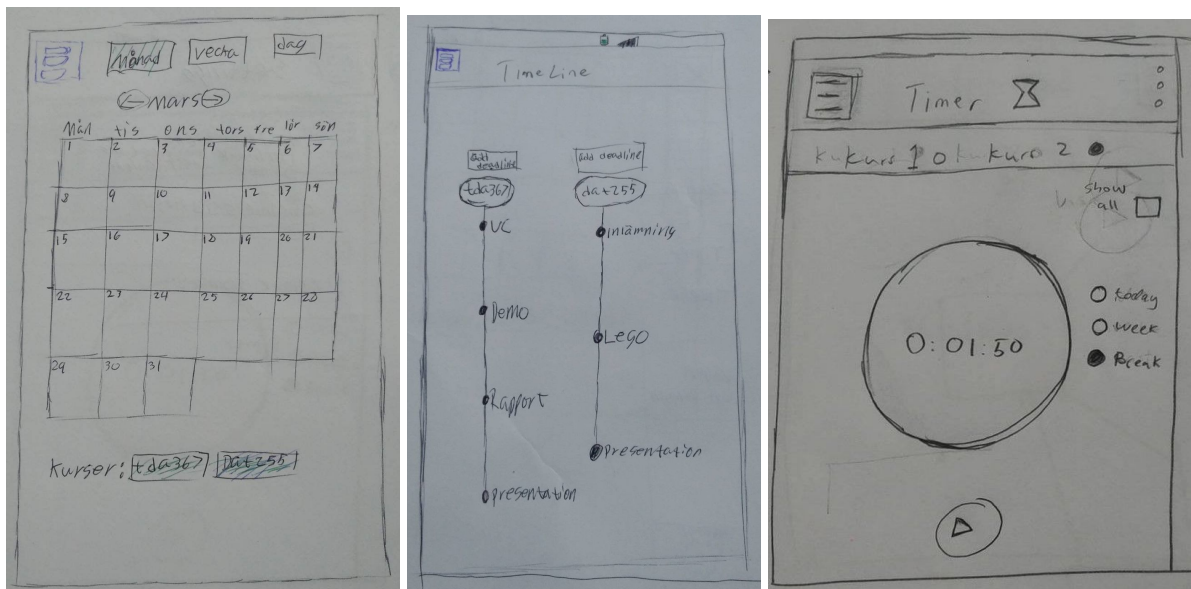
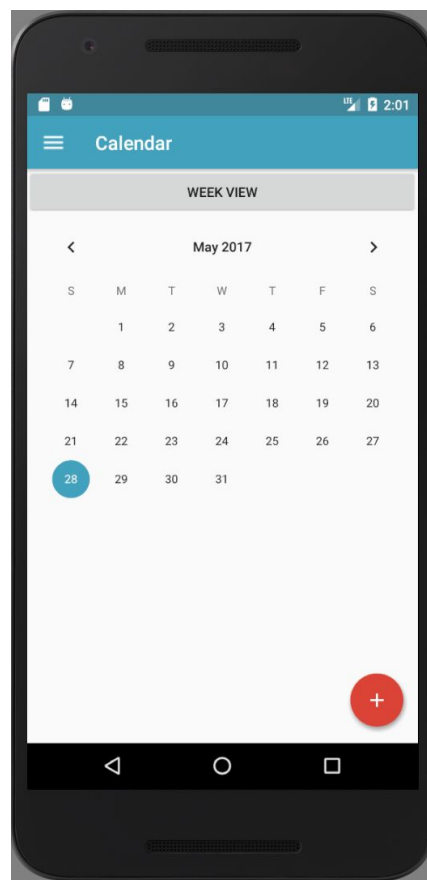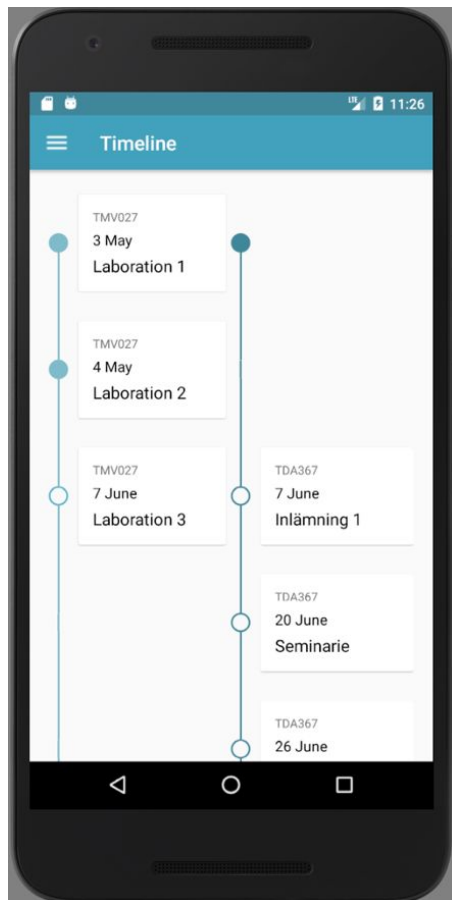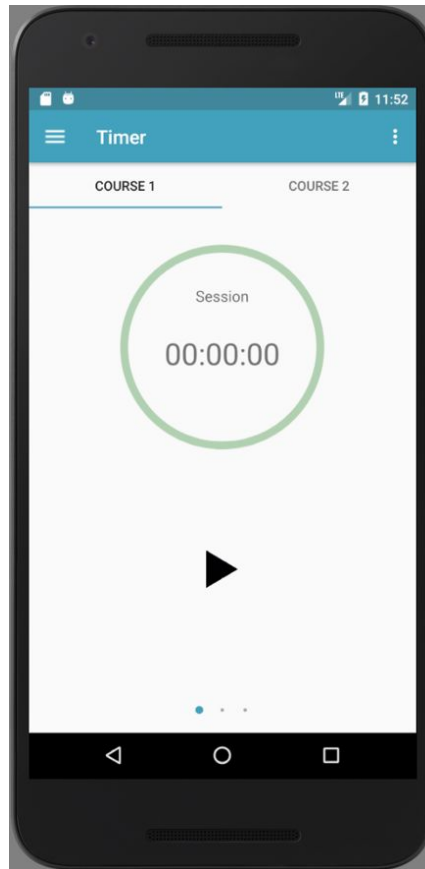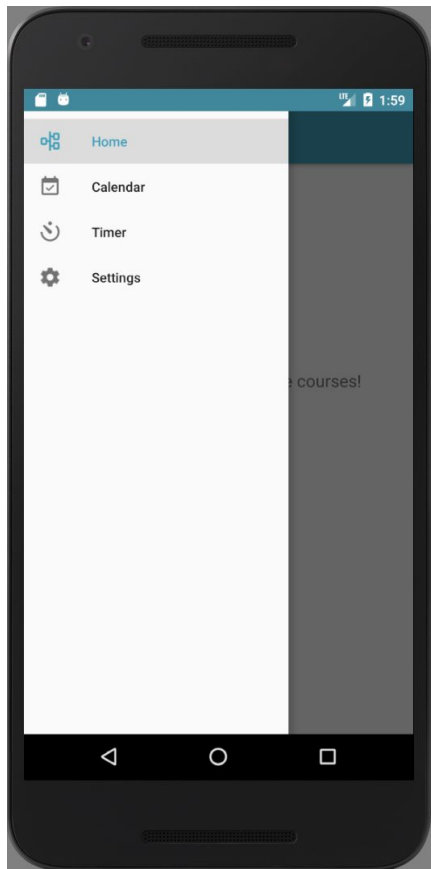## 1.2 Definitions, acronyms and abbreviations

- Event: In this document, event means a scheduled appointment of some kind.

2 Requirements

2.1 User interface

The user interface will consist of separate views, mainly a calendar, timer and a timeline.

2.2 Functional requirements

Settings view:
- The user shall be able to import schedule for each course
- The user shall be able to add a weekly goal with a given time to study for each course
- The user shall be able to set a time interval for study breaks

Schedule view:
- The user shall be able to add event to schedule
- The user shall be able to view more information about event
- The user shall be able to edit event
- The user shall be able to remove event from schedule

Timeline view:
- The user shall be able to edit deadline and mark deadline as finished
- The user shall be able to view the users progress of the course on timeline

Timer view:
- The user shall be able to start and stop the two different timers for weekly goal and study break

2.3 Non-functional requirements

- 9/10 novice users should be able to add an event
- 9/10 novice users should be able to add a deadline
- 9/10 novice users should be able to import a schedule
- 9/10 novice users should be able to view more information about an event or deadline
- 9/10 novice users should be able to start the timer
- 9/10 novice users should be able to navigate in the side bar
- 8/10 novice users should be able to set a weekly goal
- 8/10 novice users should be able to set a time interval for breaks
- App should open and be functional within 3 seconds after user starts app
- App should crash in max 1 out of 15 usage sessions

3 Use cases

Sequence diagrams for use cases are in the SDD.

3.1 Use case listing

UC1: Import schedule

Summary: The user can import schedule from timeedit for a given course
Priority: High
Extends:
Includes:
Participants: User

Normal flow

	User	System
1	User navigates to settings view	
2		System displays settings view
3	User searches for course	
4		System displays dialog with matches for search
5	User chooses a course	
6		System marks course as selected

7	User choses to add course	
8		System imports course from TimeEdit

(3-4): Alternate flow - Invalid course name

	User	System
3	User tells invalid course name	
4		System tells user that no such course exists

(3-4): Alternate flow - Course doesn't exist

	User	System
3	User tells course that doesn't exist	
4		System tells user that no such course exists

UC2: Add event to schedule

Summary: The user can add additional events to schedule, either within a course or stand-alone.
Priority: High
Extends:
Includes:
Participants: User

Normal flow

	User	System
1	User navigates to event form	

2		Presents event form
3	User gives name, date, start time, end time for event Optional: Course, Description	
4		Adds event to schedule

(3-4)a: Alternate flow - Add deadline

	User	System
3	User gives name, date and deadline for event Optional: Course, Description	
4		Adds deadline to schedule and timeline

(3-4)b: Alternate flow - Invalid date

	User	System
3	User gives start time that is after end time	
4		System returns error message

UC3: Remove event

Summary: The user can remove an event from the schedule
Priority: High
Extends:
Includes:
Participants: User

Normal flow

	User	System
1	Navigates to event	
2		Presents event details

3	Removes event	
4		Removes event from schedule

UC4: View event information

Summary: The user shall be able to view more details about an event in the schedule
Priority: High
Extends:
Includes:
Participants: User

Normal flow

	User	System
1	User navigates to event	
2		System presents event details

UC5: Mark deadline as finished

Summary: The user shall be able to mark a deadline as finished and thereby see his/her progress in the course
Priority: High
Extends:
Includes:
Participants: User

Normal flow

	User	System
1	User navigates to detailed deadline view	
2		System presents deadline details

3	User marks deadline as finished	
4		System updates progress on timeline

UC6: Edit deadline

Summary: The user shall be able to edit a deadline.
Priority: High
Extends:
Includes:
Participants: User

Normal flow

	User	System
1	User navigates to detailed deadline view	
2		System presents deadline details
3	User edites date/title/description	
4		System edits texts
5	User choses to save changes	
6		System saves changes and displays new information on timeline

UC7: Add weekly goal

Summary: The user can add a weekly goal with a given time to spend on each course.
Priority: Medium
Extends:
Includes:
Participants: User

Normal flow

	User	System
1	User navigates to Settings	

2		System presents event form
3	User provides weekly goal time for course	
4		System updates course with new goal

UC8: Set time interval for study breaks

Summary: The user can set up a time interval for when to take breaks.
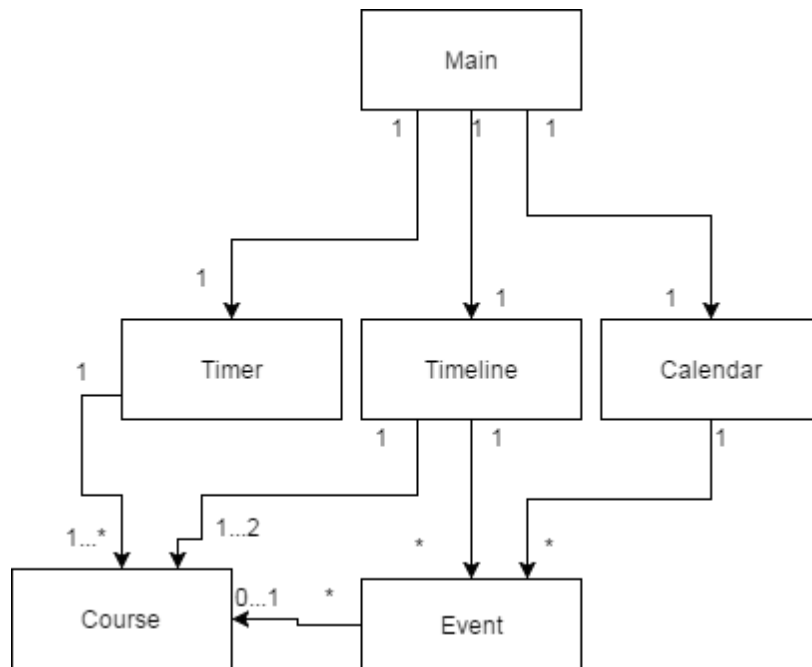Priority: Medium
Extends:
Includes:
Participants: User

Normal flow

	User	System
1	User navigates to Settings	
2		System presents Settings options
3	User provides break session time for course	
4		System updates Timer view with new interval included

4 Domain model

4.1 Class Responsibilities

The app contains mainly of courses which have events and timers. Events can be created without having specific courses associated to them. Timeline can maximum display two courses and their deadlines due to the size of the mobile screen.
More detailed information about class responsibilities is in the SDD.

5 References

TimeEdit