

1 Revision History

Version	Date	Description
Inception draft	13/09/2012	Added Vision, Use Cases and UML, Glossary and Supplementary Requirements
Elaboration phase	27/09/2012	Added Domain Model, System Sequence Diagram and Operation Contracts
Further elaboration	04/10/2012	Added UML Package Diagrams, another Sequence Diagram and a Discussion of our software attributes, changed Supplementary Requirements (should to shall and performance specification), added revision history, added numbering and bullets to Operation Contracts, added titles to models, added package diagram, added use case diagram, added detailed sequence diagrams
Further modelling	11/10/2012	TO DO AS 40

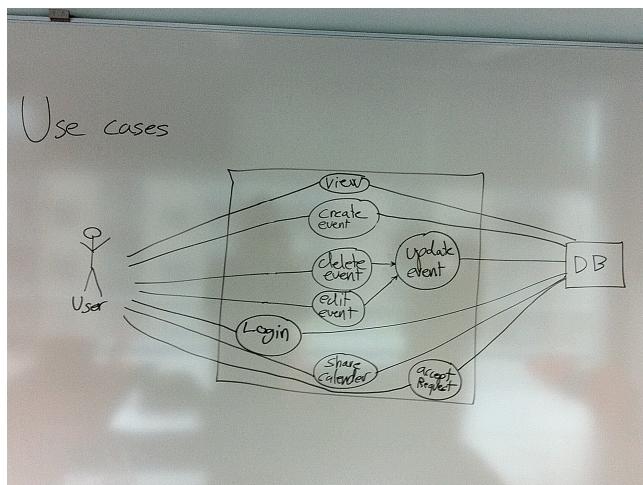
2 Glossary

Event Something predicted to happen at some point.

3 Vision

The purpose of this product is to make browsing, management and sharing easy for people with little or no knowledge about interaction with networks or computers. Performance shall be reasonable and use of the application shall not expose any security threats, unless prevention compromises usability or reliability.

4 User cases



Name View calender

Scope Calender client

Level User goal

Primary Actor User

Stakeholders and Interests User

Precondition

- User is connected to database.
- User has logged on.

Main Success Scenario User gets the desired information.

Extensions No database connection returns error

Name Create event

Scope Calender client

Level User goal

Primary Actor User

Stakeholders and Interests User

Precondition

- User is connected to database.
- User has logged on.

Postcondition

- An event has been created in the database.
- View is updated

Main Success Scenario User creates the desired event

Extensions No database connection returns error

Name Delete event

Scope Calender client

Level User goal

Primary Actor User

Stakeholders and Interests User

Precondition

- User is connected to database.
- User has logged on.
- User has chosen a single event in the users personal calender.

Postcondition

- the event has been deleted in the database.
- View is updated

Main Success Scenario User deletes the desired event
Extensions No database connection returns error

Name Edit event

Scope Calender client

Level User goal

Primary Actor User

Stakeholders and Interests User

Precondition

- User is connected to database.
- User has logged on.
- User has chosen a single event in the users personal calender.

Postcondition

- the event has been updated in the database.
- View is updated

Main Success Scenario User updates the desired event

Extensions No database connection returns error

Name User login

Scope Calender client

Level User goal

Primary Actor User

Stakeholders and Interests User

Precondition

- User is connected to database.

Postcondition The user has successfully logged on to the system

Main Success Scenario User logs on to the system

Extensions No database connection returns error Wrong e-mail address and/or passwords returns error and offers an opportunity to get the password sent by mail

Special Requirements

Name Share calender

Scope Calender client

Level User goal

Primary Actor User

Stakeholders and Interests User

Precondition User is connected to database. User is logged on

Postcondition The user has sent a share-invite to another user of the system

Main Success Scenario The user successfully sends a share-invite to another user

Extensions No database connection returns error The entered e-mail which the user wants to share the calender does not exist in the system. The user is presented with an error

Special Requirements

Name Accept request

Scope Calender client

Level User goal

Primary Actor User

Stakeholders and Interests User

Precondition User is connected to database. User is logged on User has received an invite to see another users calender

Postcondition The user has accepted the invite and is now able to see the shared calender. The view is updated.

Main Success Scenario The user has access to see the shared calender

Extensions No database connection returns error The user declines the invite, nothing happens

Special Requirements

5 Supplementary specification

The supplementary specification is structured using the FURPS+ model.

Functionality: The program shall support a minimum of functions.

- The functions shall support sharing of calenders, creation and modification of events and viewing.
- The functions shall be intuitively grouped.

Usability: The user shall be able to use the program with as little knowledge as possible, which raises the following requirements:

- The user shall consider a minimum of options performing the desired task. This may compromise both performance and functionality.
- Anyone beyond the age of 12 shall be able to understand the program terminology.

Reliability: The program shall be very reliable, even if it compromises security. Any error should result in recovery or crash, neither involving the user. Any crash or recovery must maintain the content of the database.

- The program shall be able to complete as many tasks as possible without internet connection.

Performance: The program shall have reasonable performance. This means that no operation shall take more than 2 seconds on a bandwidth with more than 2 mBit/s and a processor of more than 1 GHz.

Supportability: Functions shall be supported with a help page. The content of the help page should be limited because the intuitiveness and limited

functionality makes it needless.

6 Discussion of software attributes

The system shall support a limited selection of functions. This decision makes it easier to get an overview of the functionality for the novice user. This converge with our usability requirement, because users with limited knowledge will benefit from this. Security hinders usability, as it is harder to use a system that requires user authentication. The system has this trade-off because it is a minimum for supporting cloud computing. The program could involve the user in eventual errors, but this has been deselected to make it simpler. Only connectivity errors that users have a chance to solve will return an error. All of the decisions match our priority of making the system usable with as little knowledge as possible.

7 Operation Contracts

OC 1

Operation: newEvent(time:Date, description:String)

References: User Cases: Create new event

Pre Conditions:

- User must be connected to the server
- must be logged on to the system

Post Conditions:

- An Event instance event was created (instance creation)
- event.ID is unique (Primary key established)
- event is associated with a Calendar, based on the users ID (association formed)
- event.description becomes description (attribute modefication)

OC 2

Operation: updateEvent(event:Event, command:String)

References: User Cases: Edit event, Delete event

Pre Conditions:

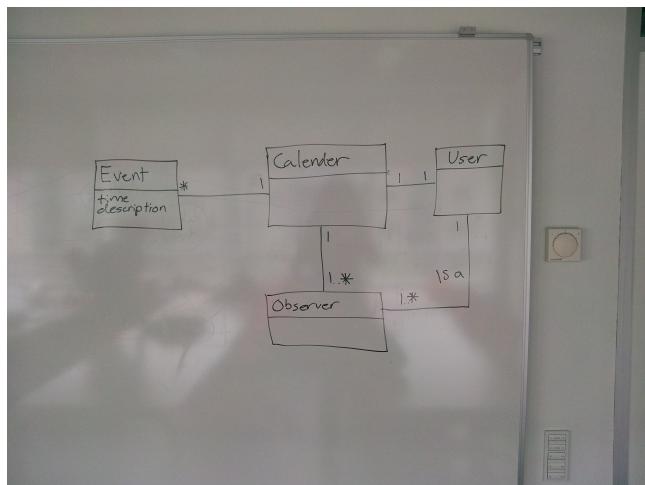
- User must be connected to the server
- User must be logged on to the system
- An existing Event must be selected

Post Conditions:

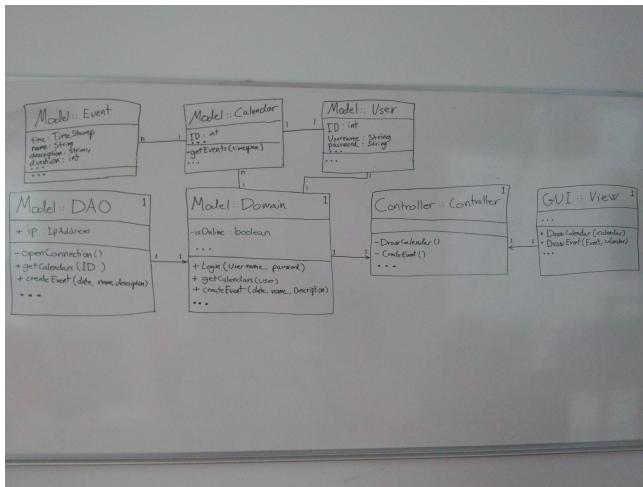
- The incoming command has been executed on the target Event (instance modification)

8 Models

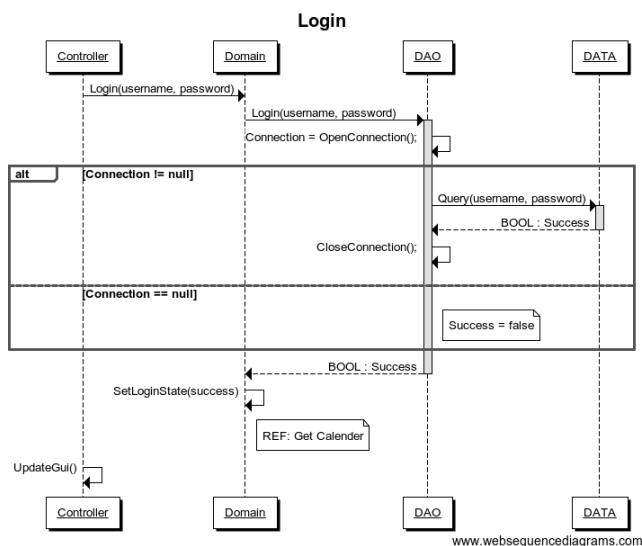
Domain Model

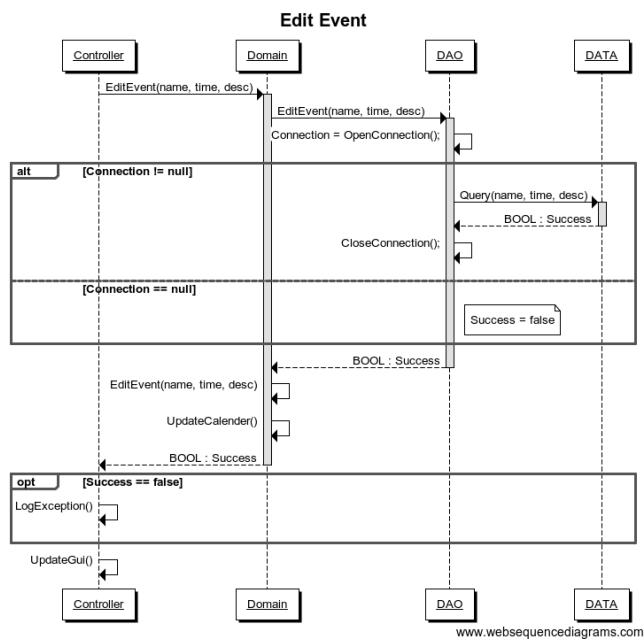
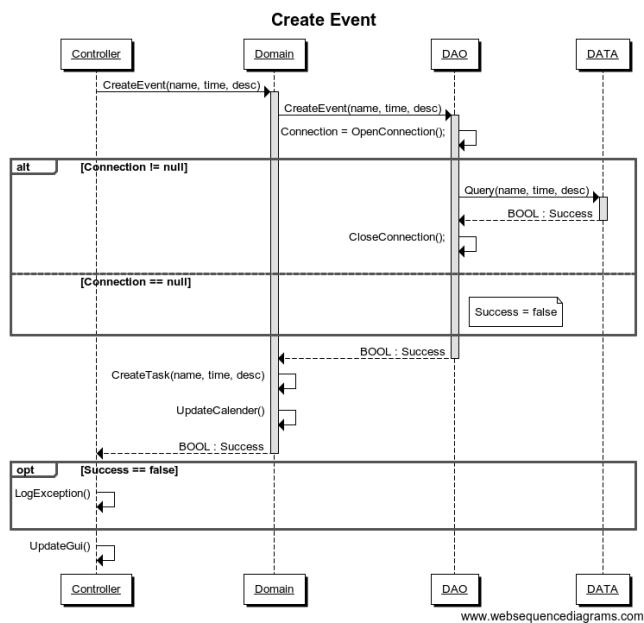


Design Class Diagrams

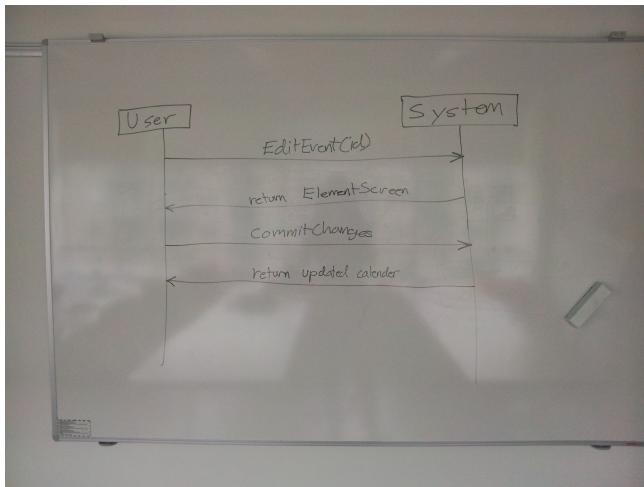


Sequence diagrams





Simple sketchy sequence diagrams



Package Diagram

