COSBAS Functional Requirements Documentation

Git: `https://github.com/undecidables/Requirements-Documentation`

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March 2015

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1 Functional Requirements

1.1 Introduction

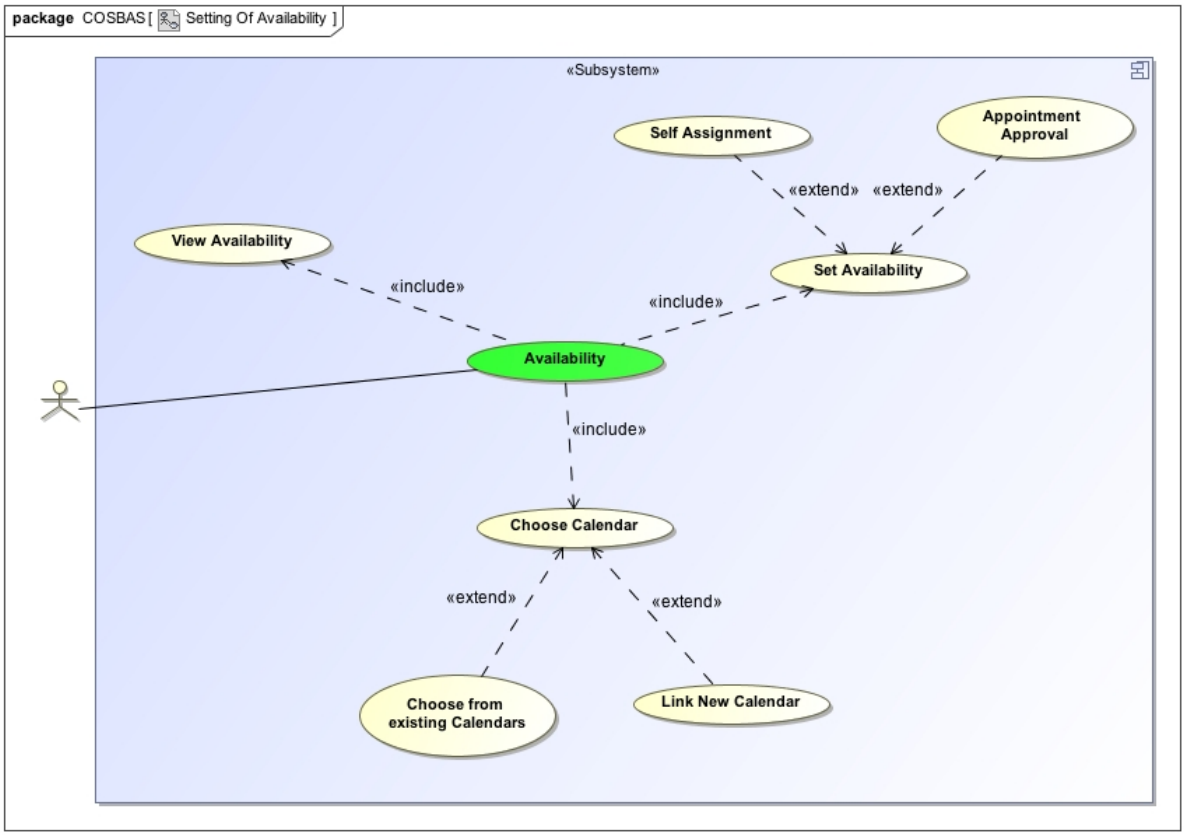
In this section of the document we will identify and address a high level overview of the COSBAS (Computer Science Biometric Access System) system.

1.2 Use Case Prioratisation

1.3 Use Cases / Services Contracts

1.3.1 Setting of availability

The following fucntionality of creating and setting will be available to only signed in users. Users who are not authorised or signed into the system will only be granted read-only privileges.



Choose Calendar *Priority: Critical*

An authorised user of the system should be able to select which calendar account to associate with the system. If the user chose a linked service, then that service needs to be authenticated.

Pre-conditions: The user should be logged into the system and already have a calendar account from the linked services (Google & Outlook).

Post-conditions: Once the user has chosen the calendar to associate with the system, all updates in availability will be amended in that specific calendar.

View Availability *Priority: Critical*

Both the authorised user and a non-authorised user (or guest) should be able to have a

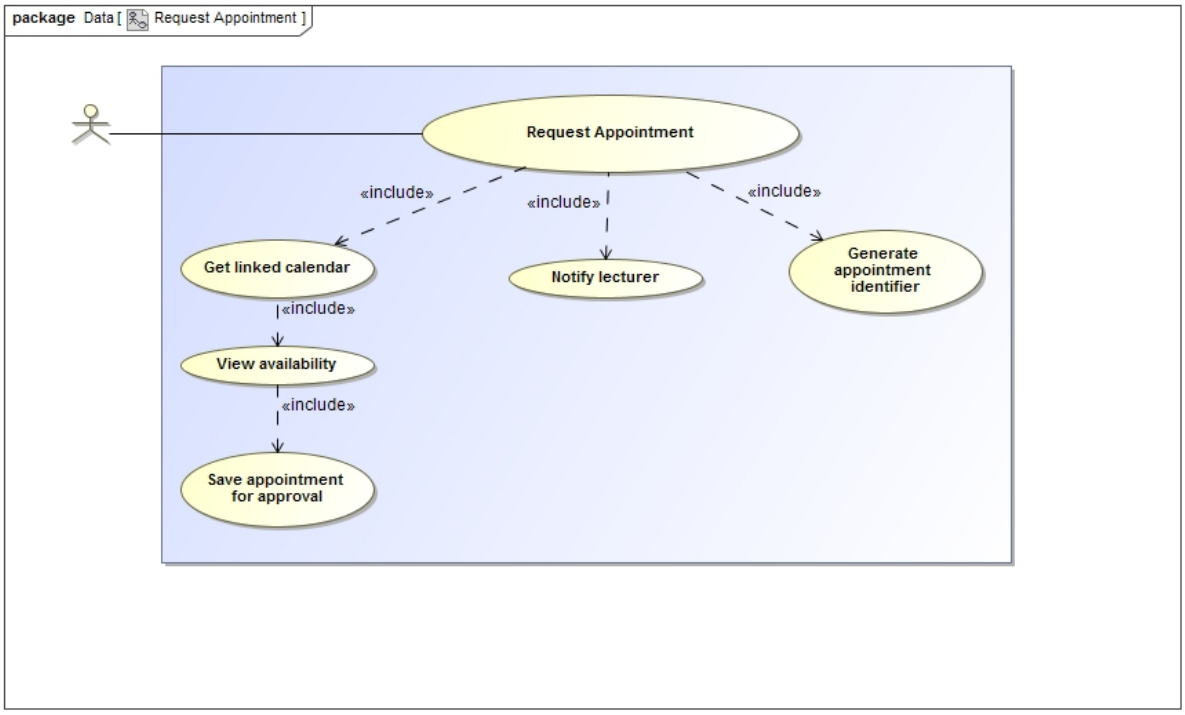
read-only functionality of viewing the availibility of the associated staff member on their calender.
Pre-conditions: An associated calendar for the staff member should exist.
Post-conditions: Be able to see whether the associated staff member has an appointment at a certain date and time or if they are free for appointments.

Set Availability *Priority: Critical*

The authorised user should be able to set whether s/he is available at a certain date or time or if they have an appointment at a specific date or time. This can be set by the staff member himself/herself or by the approval of an appointment.
Pre-conditions: The user should be authorised and logged in and a calendar should exist.
Post-conditions: The linked calendar should be updated with the particulars specified by the authorised user. (CRUD of appointments).

1.3.2 Requesting Appointment

This section will describe the functionality regarding requesting an appointment with a lecturer.



Requesting Appointment *Priority: Important*

The requestAppointment function allows a user of the system to request an appointment with a lecturer that is also making use of the system.
Pre-conditions:

- Lecturer must exist.
- Date and time of the requested appointment must be valid entries.

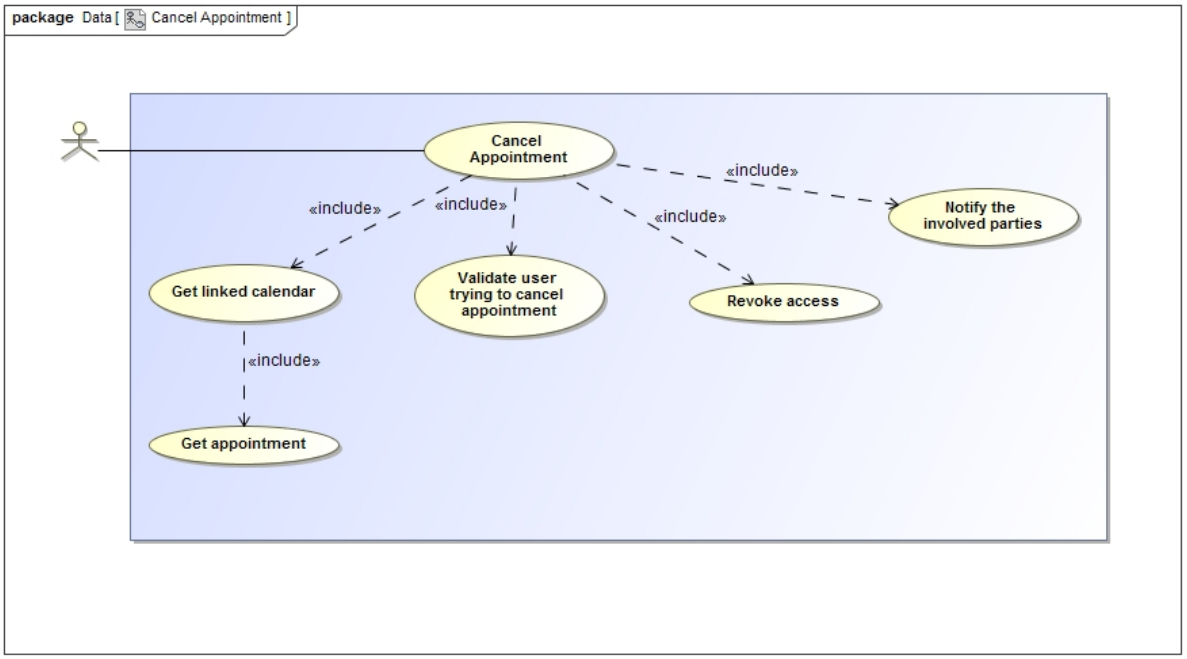
Post-conditions:

- Appointment will be saved for the lecturer to approve or deny later on.
- User gets an appointment identifier back.

- Lecturer is notified of the requested appointment.

1.3.3 Cancelling Appointment

This section will describe the functionality regarding cancelling an existing appointment with a lecturer.



Cancelling Appointment *Priority: Important*

The cancelAppointment function allows you to cancel an appointment if you are either the lecturer who's appointment it is or the person who made the appointment.

Pre-conditions:

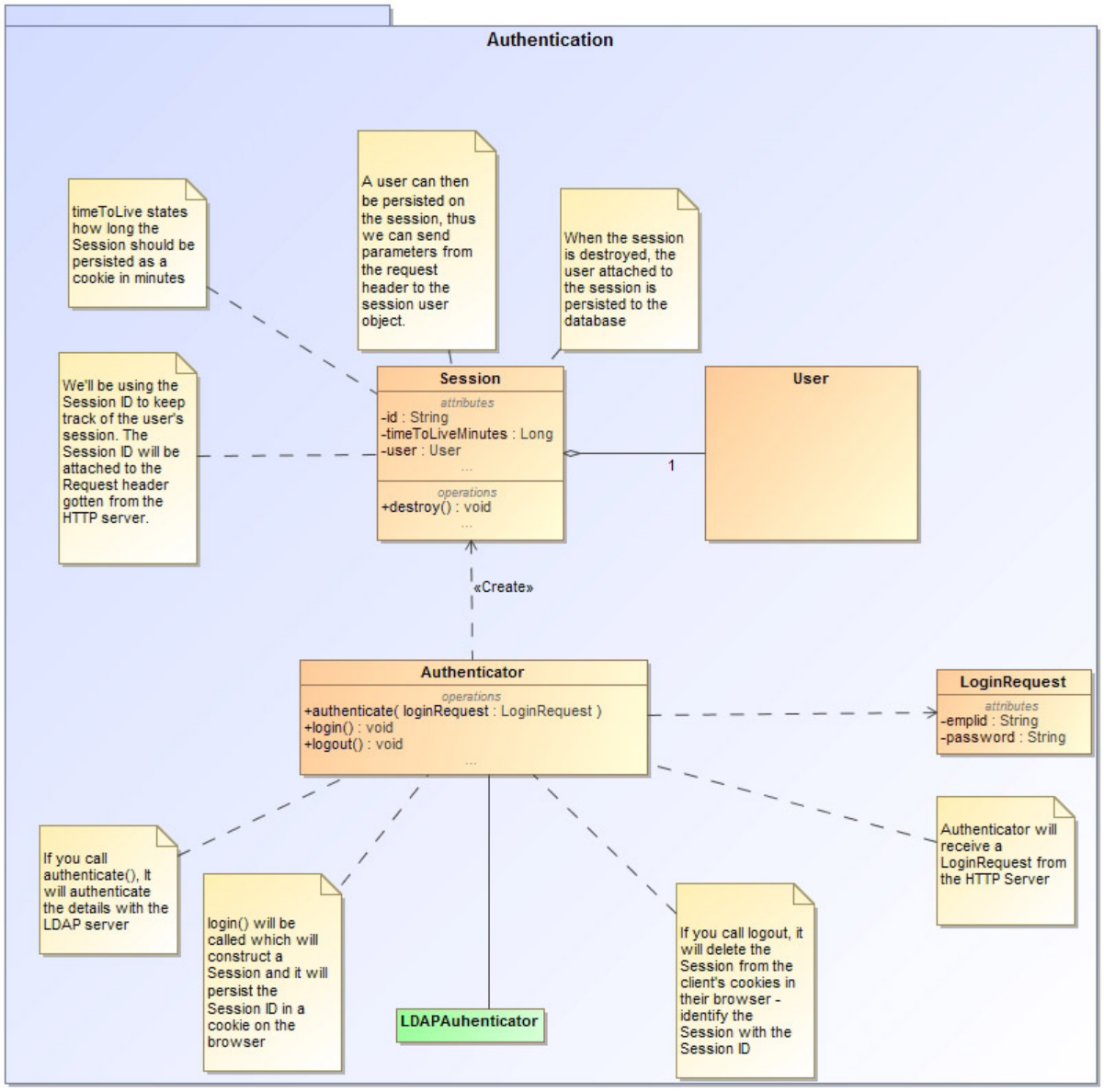
- The appointment must exist.
- The user cancelling the appointment has to be the person that the appointment is with or the person who made the appointment.

Post-conditions:

- The appointment will be cancelled.
- Both parties are notified.
- Access that was granted for the appointment is revoked.

1.4 Authentication

The following section will describe functionality around logging staff members in and out.



Authenticate *Priority: Critical*

A user's details need to be authenticated with LDAP.

Pre-conditions:

- A user must have an EMPLID from the University of Pretoria
- A user must have an associated password for their EMPLID from the University
- A successful connection to LDAP is important
- A user must be registered as a staff member on LDAP
- A successful validation response after an LDAP authentication is needed to authenticate a user

Post-conditions:

- A user is successfully authenticated on the server

Log In *Priority: Critical*

A user must be logged into the system once they have been authenticated. A user is logged in by creating a cookie containing the session ID.

Pre-conditions:

- A user must have been successfully authenticated by the system to be logged in.

Post-conditions:

- A user is successfully logged in and can thus access features which require authentication.
- A user is taken to the booking management page on the website

Log Out *Priority: Critical*

The system must be able to log a user out. A user is logged out by destroying the cookie containing their session ID.

Pre-conditions:

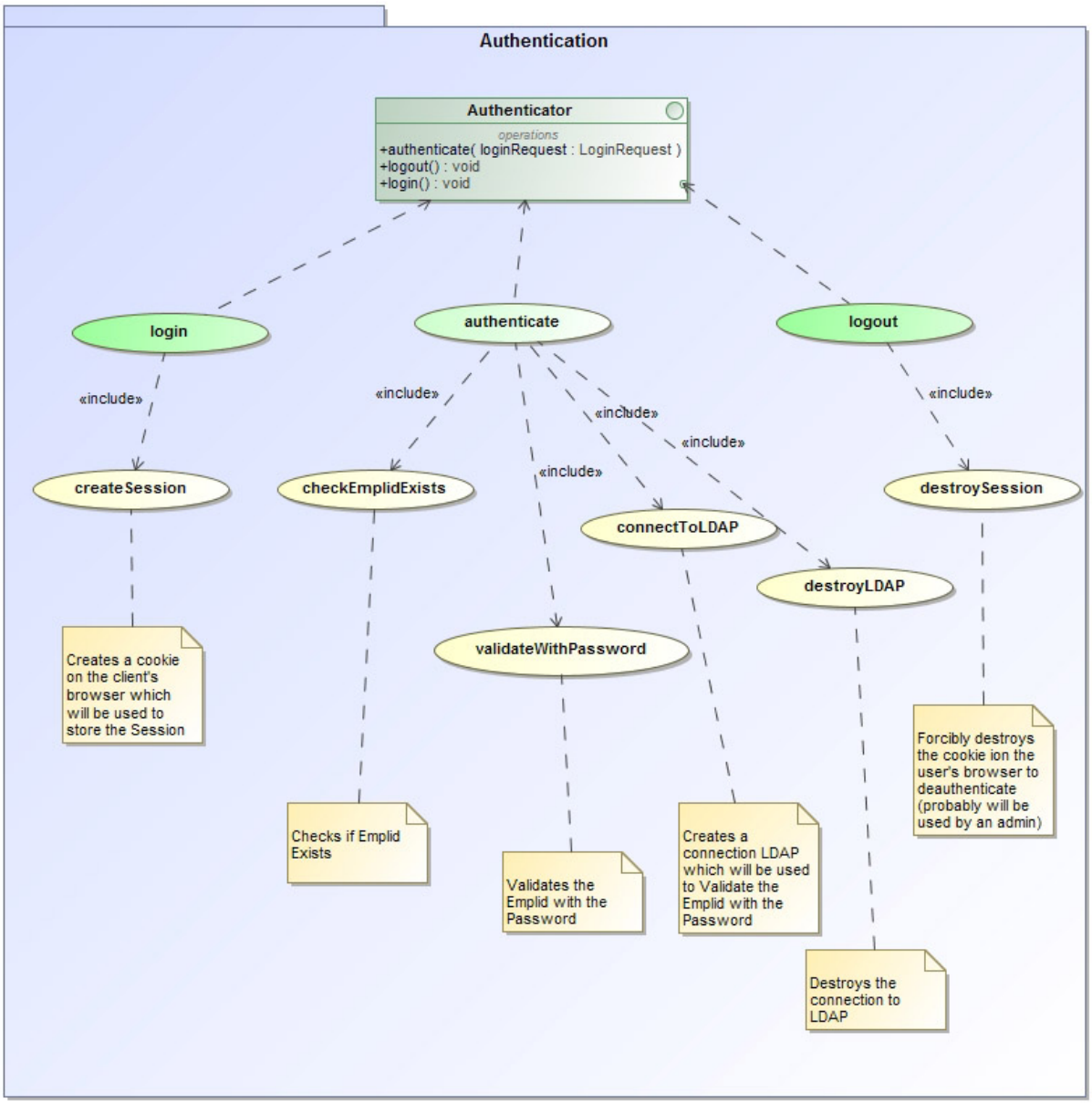
- A user must be logged in before they can be logged out

Post-conditions:

- A user's session cookie is destroyed and they are logged out on the system and taken back to the home page.

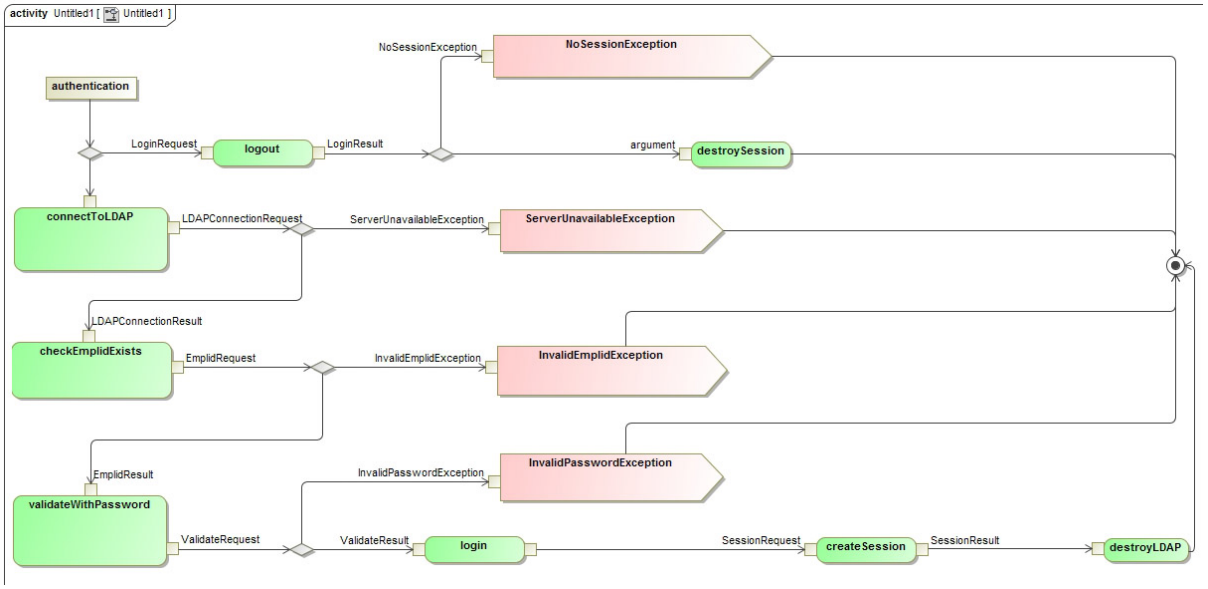
1.5 Required Functionality

1.5.1 Authentication



1.6 Process Spesification

1.6.1 Authentication



1.7 Domain Model