

NIRAV PATEL

#40248940

LAURENZ MARIUS GOMEZ

#40247966

SOEN342

Section II

Operation Contracts of the “Alouer” System

Work Presented to

Dr. Constantinos Constantinides

Concordia University

18th of October 2024

<i>Revision Number</i>	<i>Date</i>	<i>Description of Changes</i>	<i>Author / Editor</i>	<i>Communication of Change</i>
1.0	2024-10-16	Initial version	Nirav Patel Laurenz Marius Gomez	Internal Announcement

Contents

Administrator Use Cases.....	4
Enter Organization Offerings	4
Operation Contract for pressCreateLesson()	4
Operation Contract for selectLocation(location)	4
Operation Contract for enterLessonDetails(title, lessonType, startTime, endTime)	5
Delete User Account.....	6
Operation Contract for requestUserList()	6
Operation Contract for selectUserToDelete(user)	6
Operation Contract for confirmDeletion()	6
Instructor Use Cases	8
Register as Instructor.....	8
Accept Offering.....	9

Administrator Use Cases

Enter Organization Offerings

Operation Contract for pressCreateLesson()

Contract CO1	pressCreateLesson
Operation	pressCreateLesson()
Cross References	Use Case: Enter Organization Offerings
Preconditions	<ol style="list-style-type: none">1. The admin is logged into the system.2. The interface is displaying the lesson creation/modification/deletion options.
Postconditions	<ol style="list-style-type: none">1. Instance Creation or Deletion: The system prepares a new lesson creation form for the admin.2. Attribute Modification: No attributes are modified at this stage.3. Associations: No associations are made at this stage.

Operation Contract for selectLocation(location)

Contract CO2	selectLocation
Operation	selectLocation (location: Location)
Cross References	Use Case: Enter Organization Offerings
Preconditions	<ol style="list-style-type: none">1. The list of locations has been displayed by the system.
Postconditions	<ol style="list-style-type: none">1. Instance Creation or Deletion: The selected location is saved in the system for use in the lesson creation process.

	<ol style="list-style-type: none"> 2. Attribute Modification: The lesson creation form is updated to reflect the selected location. 3. Associations: The selected location is associated with the lesson being created.
--	---

Operation Contract for enterLessonDetails(title, lessonType, startTime, endTime)

Contract CO3	enterLessonDetails
Operation	<pre> enterLessonDetails (title: String, lessonType: LessonType, startTime: Date, endTime: Date) </pre>
Cross References	Use Case: Enter Organization Offerings
Preconditions	<ol style="list-style-type: none"> 1. The lesson creation form is displayed and ready for input. 2. A location has already been selected.
Postconditions	<ol style="list-style-type: none"> 1. Instance Creation or Deletion: A new lesson instance is created with the provided details if the client-side validation is successful. 2. Attribute Modification: The details of the lesson instance (title, lessonType, startTime, endTime) are updated based on the input values. 3. Associations: The new lesson is associated with the selected location and eventually will be associated with other related entities like instructors once accepted.

Delete User Account

Operation Contract for requestUserList()

Contract C04	requestUserList
Operation	requestUserList()
Cross References	Use Case: Delete User Account
Preconditions	1. The admin is logged into the system.
Postconditions	1. Instance Creation or Deletion: The system generates and prepares a list of all users in the system. 2. Attribute Modification: No attributes are modified at this stage. 3. Associations: No associations are made at this stage.

Operation Contract for selectUserToDelete(user)

Contract C05	selectUserToDelete
Operation	selectUserToDelete(user)
Cross References	Use Case: Delete User Account
Preconditions	1. The list of users has been displayed by the system.
Postconditions	1. Instance Creation or Deletion: The selected user is temporarily stored for deletion. 2. Attribute Modification: The deletion confirmation prompt is updated to reflect the selected user. 3. Associations: No associations modification are made at this stage.

Operation Contract for confirmDeletion()

Contract C06	confirmDeletion
Operation	confirmDeletion()

Cross References	Use Case: Delete User Account
Preconditions	1. A user has been selected for deletion, and the confirmation prompt is displayed.
Postconditions	<ol style="list-style-type: none"> 1. Instance Deletion or Deletion: The selected user account is permanently removed from the system. 2. Attribute Modification: The system updates the user list to reflect the deletion. This involves removing the user from any bookings it has made with any lesson. 3. Associations: The associations between the user and its corresponding lessons are severed. If the user was a client, then their underage dependents are removed from the system as well.

Instructor Use Cases

Register as Instructor

Contract C07	requestRegister
Operation	requestRegister()
Cross References	Use Case: Register as Instructor
Preconditions	The user must not be logged in with a role
Postconditions	Instance Creation or Deletion: An instance of a registration form is created and displayed to the viewer Attribute Modification: N/A Associations Formed or Broken: N/A

Contract C08	inputCredentials
Operation	inputCredentials (firstName: String, lastName: String, email: String, password: String, phoneNumber: String)
Cross References	Use Case: Register as Instructor
Preconditions	An instance of a registration form is created and displayed to the user
Postconditions	Instance Creation or Deletion: An instance of Instructor is created and added to the database Attribute Modification: User inputs are assigned as values for the corresponding Instructor attributes Associations Formed or Broken: newly created Instructor will be added to the collection of Users

Accept Offering

Contract CO9	requestLessons
Operation	requestLessons()
Cross References	Use Case: Accept Offering
Preconditions	N/A
Postconditions	Instance Creation or Deletion: N/A Attribute Modification: N/A Associations Formed or Broken: N/A

Contract CO10	filterLessons
Operation	filterLessons (date: Date, keyword: String, location: Location, timeRange: Time)
Cross References	Use Case: Accept Offering
Preconditions	N/A
Postconditions	Instance Creation or Deletion: N/A Attribute Modification: N/A Associations Formed or Broken: Related Lessons that are queried based on user inputs will be displayed

Contract CO11	selectLesson
Operation	SelectLesson()
Cross References	Use Case: Accept Offering
Preconditions	N/A
Postconditions	<p>Instance Creation or Deletion: N/A</p> <p>Attribute Modification: The Lesson becomes available to Clients (Lesson.isAvailable = True;)</p> <p>Associations Formed or Broken: The selected Lesson will be added to the Instructor's collection of Lessons</p>