

Identification of system operations and operation contracts

Operation Contract for SignUp()

Contract: SignUp()

Operation: signUp(clientEmail : String, clientPassword : String, clientAffiliation : String, clientContactInfo : String, intentDescription : String)

Cross reference(s): Use Case "Client Sign Up"

Preconditions:

- Client is not already registered into system

Postconditions:

- An instance of Client *client* has been created [instance creation]
- Variables email, password, affiliation, contactInfo, and intentDescription are initialized in *client* [modification of variable]
- Instance *client* was associated to the list of pending clients [association formed]

Operation Contract for requestService()

Contract: requestService()

Operation: requestService(type : String)

Cross reference(s): Use Case "Client Request Service"

Preconditions:

- Client is logged into system
- Requested service type is valid

Postconditions:

- Instance ServiceRequest, *requestService*, has been created [instance creation]
- Instance *requestService* was associated with Client [association formed]
- Instance *requestService* was associated with Expert [association formed]
- Instance *requestService* was associated with list of service requests [association formed]

Operation Contract for viewAuctionDetails()

Contract: viewAuctionDetails()

Operation: viewAuctionDetails()

Cross reference(s): Use Case "Consultation for an Auction"

Preconditions:

- Client is logged into the system

Postconditions:

- Instance Auction, *auction*, has been created [instance creation]
- Instance *auction* was associated with Client for viewing [association formed]
- Instance *auction* was associated with Auction for auction details [association formed]

Operation Contract for searchObjects()

Contract: searchObjects()

Operation: searchObjects()

Cross reference(s): Use Case "Consultation for an Objects of Interest"

Preconditions:

- Client is logged into the system
- Object with objectID exists in system

Postconditions:

- Instance ObjectsOfInterests, *object*, has been created [instance creation]
- Instance *object* was associated with Client for viewing [association formed]
- Instance *object* was associated with ObjectsOfInterests for object details [association formed]

Operation Contract for addObjectsOfInterest()

Contract: addObjectsOfInterest()

Operation: searchObjects()

Cross reference(s): Use Case "Admin: Manage Object of Interest - Add New Object"

Preconditions:

- Administrator is logged into the system.
- Object with objectID does not already exist.

Postconditions:

- Instance ObjectOfInterest, *object*, has been created [instance creation]
- Instance *object* was associated with Administrator for management [association formed]
- Attributes of *object* (objectID, name, description, type, isOwned) were set [attribute modification]

Operation Contract for addObjectsOfInterest()

Contract: addClient()

Operation: addClient()

Cross Reference(s): Use Case "Admin: Manage Client Account - Add New Client"

Preconditions:

- Administrator is logged into the system.
- Client with clientID exists and is in "pending approval" state.

Postconditions:

- Attribute approved of Client with clientID was set to approved [attribute modification]
- Instance Client was associated with Administrator for approval [association formed]
- Instant Client, *client*, has been created [instance creation]

Operation Contract for addAuction()

Contract: addAuction()

Operation: addAuction(auctionID, name, schedule, type, location, auctionHouse)

Cross Reference(s): Use Case "Admin: Manage Auction House - Create Auction"

Preconditions:

- Administrator is logged into the system.
- auctionHouse exists in the system.
- No auction with auctionID already exists.

Postconditions:

- Instance Auction, *auction*, has been created [instance creation]
- Instance *auction* was associated with Administrator for management [association formed]
- Attributes of *auction* (auctionID, name, schedule, type, location, auctionHouse) were set [attribute modification]
- Instance *auction* was associated with AuctionHouse [association formed]

Operation Contract for addAuctionHouse()

Contract: addAuctionHouse()

Operation: addAuctionHouse(auctionID, auctionHouseName, auctionHouseLocation)

Cross Reference(s): Use Case "Admin: Manage Auction House - Add Auction House"

Preconditions:

- Administrator is logged into the system.
- No auction house with auctionHouseID already exists.

Postconditions:

- Instance AuctionHouse, *auctionHouse*, has been created [instance creation]
- Instance *auctionHouse* was associated with Administrator for management [association formed]
- Attributes of *auctionHouse* (auctionHouseID, name, location) were set [attribute modification]

Operation Contract for acceptServiceRequest()

Contract: acceptServiceRequest()

Operation: acceptServiceRequest()

Cross Reference(s): Use Case "Expert: Accept Service Request - Update Availability"

Preconditions:

- Expert is logged into the system.
- Service request exists and is in "pending" state.
- Expert has matching expertise for the request.

Postconditions:

- Instance ServiceRequest, *requestService*, has been created [instance creation]
- Instance *requestService* was associated with Client [association formed]
- Instance *requestService* was associated with Expert [association formed]
- Instance *requestService* was associated with list of service requests [association formed]
- Attribute status of *requestService* was set to "accepted" [attribute modification]

Operation Contract for updateAvailability()

Contract: updateAvailability()

Operation: updateAvailability(schedule)

Cross Reference(s): Use Case "Expert: Accept Service Request - Update Availability"

Preconditions:

- Expert is logged into the system.
- Service request is assigned to expert

Postconditions:

- Instance *schedule* was associated with ServiceRequest for consultation [association formed]
- Instance *schedule* was associated with Administrator to update availability [association formed]
- Instance *schedule* was associated with Expert for availability [association formed]
- Attributes of *schedule* (startTime, endTime) were set [attribute modification]