

# Operation Contracts

## Table of Contents:

**C.D. Message**

**C.D. MessageHeader**

**C.D. Trip**

**C.D. User**

**C.D. Message Board**

**C.D. User Table**

**C.D. UserTableInterface**

**C.D. MessageBoardInterface**

### C.D. Message

Operation:	toString()
Cross References:	Use Cases: Message
Preconditions:	- body was initialized
Postconditions:	- a new reference to body was returned

### C.D. MessageHeader

Operation:	MessageHeader(time: String, UUID: String, title: String)
Cross References:	Use Cases: MessageHeader

- Void
- A new MessageHeader instance was initialized
- UMID, title, and hidden were all initialized

Operation: compareTo(that: MessageHeader)

Cross References: Use Cases: MessageHeader

Preconditions: - that was initialized

Postconditions: - that was compared to that by UMID and a new Instance of int was returned

Operation: toString()

Cross References: Use Cases: MessageHeader

Preconditions: - title was initialized

Postconditions: - a new reference to title was returned

### C.D. Trip

Cross References: Trip()  
Use Cases: Trip

Preconditions: - Void

Postconditions: - A new instance of Trip was created

Operation: toString()

Cross References: Use Cases: Trip

Preconditions: - Void

Postconditions: - A new String was formed by the data members and returned

Operation: insertRider(rider: String)

Cross References: Use Cases: Trip

Preconditions: - Void

Postconditions: - rider was inserted into riders, if successful true was returned otherwise false

Operation: insertRequirement(requirement: String)

Cross References: Use Cases: Trip

Preconditions: - Void

Postconditions: - requirement was inserted into requirements

Operation: removeRider(rider: String)

Cross References: Use Cases: Trip

Preconditions: - riders was initialized

Postconditions: - rider was removed from riders if it was there

Operation: removeRequirement(requirement: String)

Cross References: Use Cases: Trip

Preconditions: - requirements was initialized  
Postconditions: - requirement was removed from requirements if it was there

#### C.D. User

Operation: User(email: String, password: String)

Cross References: Use Cases: User

Preconditions: - Void

Postconditions: - a new User instance was initialized  
- email and password were updated

Operation: compareTo(that: User)

Cross References: Use Cases: User

Preconditions: - that was initialized

Postconditions: - thwas and that are compared by UUID and a new instance of  
Int was returned

Operation: insertRating(rating: Integer)

Cross References: Use Cases: User

Preconditions: - Void

Postconditions: - this.rating average was updated

#### C.D. Message Board

MessageBoard()

Cross References: Use Cases: Message Board

Preconditions: - Void  
Postconditions: - a new MessageBoard instance was initialized

Operation: insert(message: Message)

Cross References: Use Cases: Message Board

Preconditions: - messageBoard was initialized

Postconditions: - message was inserted into MessageBoard if it was not there

Operation: remove(message: MessageHeader)

Cross References: Use Cases: Message Board

Preconditions: - messageBoard was initialized

Postconditions: - the corresponding message was removed from messageBoard if it was there

Operation: get(message: MessageHeader)

Cross References: Use Cases: Message Board

Preconditions: - messageBoard was initialized

Postconditions: - a reference to the corresponding message was returned if that message was there

Operation: checkFor(message: MessageHeader)

Cross References: Use Cases: Message Board

Preconditions:	- messageBoard was initialized
Postconditions:	- true was returned if the corresponding message was there, false otherwise

Operation:	getHeaders()
------------	--------------

Cross References:	Use Cases: Message Board
-------------------	--------------------------

Preconditions:	- messageBoard was initialized
----------------	--------------------------------

Postconditions:	- a NavigableSet of the MessageHeaders was constructed and a reference was returned
-----------------	---

Operation:	fromUser(UUID: String)
------------	------------------------

Cross References:	Use Cases: Message Board
-------------------	--------------------------

Preconditions:	- messageBoard was initialized
----------------	--------------------------------

Postconditions:	- a Collection of the MessageHeaders of Messages with UUID was returned
-----------------	---

### C.D. User Table

Operations:	UserTable()
-------------	-------------

Cross References:	Use Cases: User Table
-------------------	-----------------------

Preconditions:	- Void
----------------	--------

Postconditions:	- a new UserTable instance was initialized
-----------------	--

Operation: login(UUID: String, password: String)

Cross References: Use Cases: User Table

Preconditions: - void

Postconditions: - a User object was returned if there was such a UUID and password was correct

Operation: insert(user: User)

Cross References: Use Cases: User Table

Preconditions: - user was initialized

Postconditions: - user was inserted into the UserTable if it was not already there

Operation: remove(UUID: String)

Cross References: Use Cases: User Table

Preconditions: - UserTable was initialized

Postconditions: - A User with UUID was removed from the UserTable

Operation: checkFor(UUID: String)

Cross References: Use Cases: User Table

Preconditions: - UserTable was initialized

Postconditions: - If User with UUID was in UserTable true was returned otherwise false

## C.D UserTableInterface



Operation: Login(table: UserTable)

Cross References: Use Cases: UserTableInterface

Preconditions: - Table was initialized

Postconditions: - UserTableInterface was initialized

Operation: register(table: UserTable)

Cross References: Use Cases: UserTableInterface

Preconditions: - UserTable was initialized

Postconditions: - A User was Registered with a UUID, email, password, and profile  
Picture into the UserTable

Operation: remove(table: UserTable, user: User)

Cross References: Use Cases: UserTableInterface

Preconditions: - UserTable was initialized

Postconditions: - A User with a UUID was removed from the UserTable

Operation: recoverPassword(table: UserTable, user: User)

Cross References: Use Cases: UserTableInterface

Preconditions: - UserTable was initialized

Postconditions: - A User with a UUID was sent a recover password email

Operation: reverifyAll(table: UserTable)

Cross References: Use Cases: UserTableInterface

Preconditions: - UserTable was initialized  
Postconditions: - Verification emails were sent to all existing Users

Operation: drawProfile(table: UserTable, UUID: String)

Cross References: Use Cases: UserTableInterface

Preconditions: - UserTable is was initialized

Postconditions: - User Profile of a User with a UUID was loaded onto the screen

#### C.D. MessageBoardInterface

Operation: drawBoard(board: MessageBoard)

Cross References: Use Cases: UserTableInterface

Preconditions: - MessageBoard was initialized

Postconditions: - MessageBoard was drawn onto screen

Operation: drawReview(board: MessageBoard, header: MessageHeader)

Cross References: Use Cases: UserTableInterface

Preconditions: - MessageBoard and MessageHeader were initialized

Postconditions: - Review was drawn onto screen

Operation: drawReminder(board: MessageBoard, header: MessageHeader)

Cross References: Use Cases: UserTableInterface

Preconditions: - MessageBoard and MessageHeader were initialized

Postconditions: - Reminder was drawn onto screen

Operation: drawRequest(board: MessageBoard, header: MessageHeader)

Cross References: Use Cases: UserTableInterface

Preconditions: - MessageBoard and MessageHeader were initialized

Postconditions: - Request was drawn onto screen

drawOffer(board: MessageBoard, header: MessageHeader)

Preconditions:            Use Cases: UserTableInterface  
                              - MessageBoard and MessageHeader were initialized  
Postconditions:           - Offer was drawn onto screen

Operation:                drawService(board: MessageBoard, header: MessageHeader)

Cross References:        Use Cases: UserTableInterface  
Preconditions:            - MessageBoard and MessageHeader were initialized  
Postconditions:           - Service was drawn onto screen

Operation:                postReview(board: MessageBoard)

Cross References:        Use Cases: UserTableInterface  
Preconditions:            - MessageBoard was initialized  
Postconditions:           - Review was stored into MessageBoard

Operation:                postRequest(board: MessageBoard)

Cross References:        Use Cases: UserTableInterface  
Preconditions:            - MessageBoard was initialized  
Postconditions:           - Request was stored into MessageBoard

Operation:                postOffer(board: MessageBoard)

Cross References:        Use Cases: UserTableInterface  
Preconditions:            - MessageBoard was initialized  
Postconditions:           - Offer was stored into MessageBoard

Operation:

Cross References:

postService(board: MessageBoard)

Preconditions:

Use Cases: UserTableInterface

- MessageBoard was initialized

Postconditions:

- Service was stored into MessageBoard

Operation:

acceptRequest(board: MessageBoard, header: MessageHeader)

Cross References:

Use Cases: UserTableInterface

Preconditions:

- MessageBoard and MessageHeader were initialized

Postconditions:

- Request of MessageHeader was accepted and stored into MessageBoard

Operation:

acceptOffer(board: MessageBoard, header: MessageHeader)

Cross References:

Use Cases: UserTableInterface

Preconditions:

- MessageBoard and MessageHeader were initialized

Postconditions:

- Offer of MessageHeader was accepted and stored into MessageBoard

Operation:

acceptService(board: MessageBoard, header: MessageHeader)

Cross References:

Use Cases: UserTableInterface

Preconditions:

- MessageBoard and MessageHeader were initialized

Postconditions:

- Service of MessageHeader was accepted and stored into MessageBoard

pushReminders()

Preconditions: Use Cases: UserTableInterface  
- MessageBoard was initialized  
Postconditions: - For each person attending a Trip, a Reminder is sent to their email

Operation: filterByUser(board: MessageBoard, UUID: String)

Cross References: Use Cases: UserTableInterface

Preconditions: - MessageBoard was initialized

Postconditions: - MessageBoard is filtered by UUID of all existing Users

Operation: removeFinished()

Cross References: Use Cases: UserTableInterface

Preconditions: - MessageBoard was initialized

Postconditions: - If a Trip is completed the trip is removed from the MessageBoard