

Operation Contracts

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SSD: Login

Operation:	1: Login Attempt
Cross References:	Use Cases: Login
Preconditions:	- There was a Login Attempt underway
Postconditions:	- A Login Attempt instance was associated with the current Login - The Client Software received a Login Attempt request
Operation:	2: Login Info
Cross References:	Use Cases: Login
Preconditions:	- There was a Login Attempt underway - The Client Software received a Login Attempt request
Postconditions:	- The Client Software received the User's Login Information
Operation:	2.1: Invalid Info
Cross References:	Use Cases: Login
Preconditions:	- There was a Login Attempt underway - The Client Software received Login Attempt Information
Postconditions:	- The current Login Attempt instance was deleted - A new Login Attempt instance was created and was associated with Login - Login Page was reloaded

Operation: 2.2 Login Request

Cross References: Use Cases: Login

Preconditions:

- There was a Login Attempt underway
- The Client Software received Login Information

Postconditions:

- The Server received the Login Request and Login Information

Operation: 2.3: User

Cross References: Use Cases: Login

Preconditions:

- There was a Login Attempt underway
- The Server received the Login Request and Information

Postconditions:

- User Information was returned from the Server to the Client Software

Operation: 2.4: Session Token

Cross References: Use Cases: Login

Preconditions:

- There was a Login Attempt underway
- The Server received a Login Request

Postconditions:

- A session token was returned to the Client Software

Operation: 2.4.1: Home Menu

Cross References: Use Cases: Login

Preconditions:

- There was a Login Attempt underway
- Client Software received Session Token

Postconditions:

- The current Login Attempt state was set to Success
- The Home Menu was loaded

Operation: 2.5: Login Failure

Cross References: Use Cases: Login

Preconditions:

- There was a Login Attempt underway
- The Server received a Login Request

Postconditions:

- Client Software received Login Failure state

Operation: 2.5.1: Report Failure

Cross References: Use Cases: Login

Preconditions:

- There was a Login Attempt underway
- Client Software received Login Failure state

Postconditions:

- Login Attempt instance was deleted
- A new Login Attempt instance was created and was associated with the current Login
- Login Page was reloaded

SSD: Registration

Operation:	3: Registration Attempt
Cross References:	Use Cases: Registration
Preconditions:	- There was a current Registration Attempt underway
Postconditions:	- A new Registration Attempt was created and associated with the current Registration - A Registration Attempt request was received by the Client Software
Operation:	3.1: Registration Form
Cross References:	Use Cases: Login
Preconditions:	- There was a Login Attempt underway - A Registration Attempt request was received by the Client Software
Postconditions:	- The Client Software displayed Registration Form
Operation:	4: Registration Info
Cross References:	Use Cases: Login
Preconditions:	- There was a Login Attempt underway - The Client Software received a Registration Attempt
Postconditions:	- Registration Information was received by the Client Software

Operation:	4.1: Invalid Info
Cross References:	Use Cases: Registration
Preconditions:	<ul style="list-style-type: none"> - There was a current Registration Underway - The Client Software received the Registration Attempt state
Postconditions:	<ul style="list-style-type: none"> - The current Registration Attempt instance was deleted - A new Registration Attempt instance was created and was associated with Registration - Registration Page was reloaded

Verify Account

Operation:	4.2: Verify Email
Cross References:	Use Cases: Registration, Re-Verify Account
Preconditions:	<ul style="list-style-type: none"> - There was a current Registration Underway - Server received Registration Attempt request
Postconditions:	<ul style="list-style-type: none"> - SMTP received a request to Verify Email

Operation:	4.3: Listen {5 min}
Cross References:	Use Cases: Registration, Re-Verify Account
Preconditions:	<ul style="list-style-type: none"> - There was a current Registration Underway - SMTP requested email verification
Postconditions:	<ul style="list-style-type: none"> - POP3 Listened for communication for 5 minutes

Operation: 5: Valid Reply

Cross References: Use Cases: Registration, Re-Verify Account

Preconditions: - There was a current Registration Underway
- POP3 received communication

Postconditions: - Server received Valid Reply from POP3

Operation: 5.1: Registration Request

Cross References: Use Cases: Registration, Re-Verify Account

Preconditions: - There was a current Registration Underway
- Client Software received Registration Attempt request

Postconditions: - Server had received Registration Attempt request

Operation: 5.2: Registration Success

Cross References: Use Cases: Registration, Re-Verify Account

Preconditions: - There was a current Registration Underway
- Server received Valid Reply from POP3

Postconditions: - Registration Attempt was set to Success
- Client Software received Registration Attempt state

Operation: 5.3: Report Success

Cross References: Use Cases: Registration, Re-Verify Account

Preconditions: - There was a current Registration Underway
- The Client Software received Registration Attempt state

Postconditions: - Registration Successful notification was displayed

Operation: 5.3: Registration Failure

Cross References: Use Cases: Registration, Re-Verify Account

Preconditions:

- There was a current Registration Underway
- Server received No Valid Reply from POP3

Postconditions:

- Registration Attempt state was set to failure
- Client Software received Registration Attempt state

Operation: 5.3.1: Report Failure

Cross References: Use Cases: Registration, Re-Verify Account

Preconditions:

- There was a current Registration Underway
- Client Software received Registration Attempt state

Postconditions:

- Registration Failed notification was displayed
- Registration Page was reloaded

Operation: 6: No Valid Reply

Cross References: Use Cases: Registration, Re-Verify Account

Preconditions:

- There was a current Registration Underway
- POP3 did not receive a reply

Postconditions:

- Server received No Valid Reply from POP3

Operation: 6.1: Registration Failure

Cross References: Use Cases: Registration, Re-Verify Account

Preconditions:

- There was a current Registration Underway
- Server received No Valid Reply from POP3

Postconditions:

- Registration Attempt state was set to failure
- Client Software received Registration Attempt state

Operation: 6.1.1: Report Failure

Cross References: Use Cases: Registration, Re-Verify Account

Preconditions:

- There was a current Registration Underway
- Client Software received Registration Attempt state

Postconditions:

- Registration Failed notification was displayed
- Registration Page was reloaded

SSD: Browsing Message Board

Operation: 7: Load Board

Cross References: Use Cases: Browsing Message Board

Preconditions: - User browsed the Message Board

Postconditions: - The Load Board instance was associated with the current Message Board

- Client Software received request to Load Board

Operation: 7.1: Request Board

Cross References: Use Cases: Browsing Message Board

Preconditions: - User browsed the Message Board

- Client Software received request to Load Board

Postconditions: - Server received Request Board request

Operation: 7.2: Message Board

Cross References: Use Cases: Browsing Message Board

Preconditions: - User browsed the Message Board

- Server received Request Board request

Postconditions: - A Message Board state was returned to the Client Software

Operation: 7.3: Drawn Message Board

Cross References: Use Cases: Browsing Message Board

Preconditions:

- User browsed the Message Board
- Client Software received Request Board request

Postconditions:

- The Board's Messages were loaded according to the Messages' Headers

Operation: 8: Sort/Filter Board

Cross References: Use Cases: Browsing Message Board

Preconditions:

- User browsed the Message Board

Postconditions:

- The Client Software received request to Sort/Filter Board

Operation: 8.1: Board's Messages' Headers

Cross References: Use Cases: Browsing Message Board

Preconditions:

- User browsed the Message Board
- The Client Software received a request to Sort/Filter the Board

Postconditions:

- The Board's Messages were loaded according to the Messages' Headers and the sort method

Operation: 9: Load Message

Cross References: Use Cases: Browsing Message Board

Preconditions:

- User browsed the Message Board

Postconditions:

- Client Software got the request to Load Message

Operation:	9.1: Drawn Message
Cross References:	Use Cases: Browsing Message Board
Preconditions:	<ul style="list-style-type: none">- User browsed the Message Board- Client Software gets request to Load Message
Postconditions:	<ul style="list-style-type: none">- The Client Software implemented the MessageHeaders to display Post on screen
Operation:	10: Accept Trip
Cross References:	Use Cases: Browsing Message Board
Preconditions:	<ul style="list-style-type: none">- There was a Board Request was underway
Postconditions:	<ul style="list-style-type: none">- The Client Software got the request to Accept Offer
Operation:	10.1: Sign Up for Trip
Cross References:	Use Cases: Browsing Message Board
Preconditions:	<ul style="list-style-type: none">- User browsed the Message Board- The Client Software got the request to Accept Trip
Postconditions:	<ul style="list-style-type: none">- The Server received request to Accept Offer- A new Sign Up instance was created and associated with the Message Board

Operation: 10.2: Success

Cross References: Use Cases: Browsing Message Board

Preconditions: - User browsed the Message Board

Postconditions: - Sign Up state was assigned Success
- Client Software received Sign Up State

Operation: 10.3: Report Success

Cross References: Use Cases: Browsing Message Board

Preconditions: - User browsed the Message Board

Postconditions: - Client Software displayed Successful Signup notification

Operation: 10.3: Failure

Cross References: Use Cases: Browsing Message Board

Preconditions: - User browsed the Message Board

Postconditions: - Sign Up State was assigned Failure
- Client Software received Sign up state

Operation: 10.3.1 Report Failure

Cross References: Use Cases: Browsing Message Board

Preconditions: - User browsed the Message Board
- Client Software received Sign up state

Postconditions: - Client Software displayed Signup Failed notification

Operation: 10.3.2: Request Board

Cross References: Use Cases: Browsing Message Board

Preconditions: - User browsed the Message Board

Postconditions: - Client Software requested board instance

Operation: 10.3.3: Message Board

Cross References: Use Cases: Browsing Message Board

Preconditions: - User browsed the Message Board

- Client Software requests board instance

Postconditions: - Board Instance was received by the Client Software

SSD: Posting a Message

Operation:	11: Post a Message
Cross References:	Use Cases: Posting a Message, Posting Offer, Posting Request, Posting Service, Accepting Offer, Accepting Request, Accepting Service
Preconditions:	- There was a Post a Message Request underway
Postconditions:	- The Client Software received a Post a Message request
Operation:	11.1: Trip Form
Cross References:	Use Cases: Posting a Message, Posting Offer, Posting Request, Posting Service, Accepting Offer, Accepting Request, Accepting Service
Preconditions:	- There was a Post a Message Request underway - The Client Software received a Post a Message request
Postconditions:	- A Trip Form was displayed on screen
Operation:	12: Trip Info
Cross References:	Use Cases: Posting a Message, Posting Offer, Posting Request, Posting Service, Accepting Offer, Accepting Request, Accepting Service
Preconditions:	- There was a Post a Message Request underway
Postconditions:	- The Client Software received Trip Information

Operation:	12.1: Invalid Info
Cross References:	Use Cases: Posting a Message, Posting Offer, Posting Request, Posting Service, Accepting Offer, Accepting Request, Accepting Service
Preconditions:	<ul style="list-style-type: none">- There was a Post a Message Request underway- The Client Software received Trip Information
Postconditions:	<ul style="list-style-type: none">- The Post a Message request was deleted- A new instance of Post a Message request was created and associated with Post a Message- Trip Form was reloaded- Invalid Info error was displayed
Operation:	12.2: Add Message
Cross References:	Use Cases: Posting a Message, Posting Offer, Posting Request, Posting Service, Accepting Offer, Accepting Request, Accepting Service
Preconditions:	<ul style="list-style-type: none">- There was a Post a Message Request underway- The Client Software received Trip Info
Postconditions:	<ul style="list-style-type: none">- The Server received Trip Info

Operation: 12.3: Success

Cross References: Use Cases: Posting a Message, Posting Offer, Posting Request, Posting Service, Accepting Offer, Accepting Request, Accepting Service

Preconditions:

- There was a Post a Message Request underway
- The Server received Trip Info

Postconditions:

- Trip Info was recorded by Server and added to the Message Board

Operation: 12.4: Report Success

Cross References: Use Cases: Posting a Message, Posting Offer, Posting Request, Posting Service, Accepting Offer, Accepting Request, Accepting Service

Preconditions:

- There was a Post a Message Request underway
- The Client Software received Post a Message success state

Postconditions:

- The Client Software reported Success

Operation:	12.4: Failure
Cross References:	Use Cases: Posting a Message, Posting Offer, Posting Request, Posting Service, Accepting Offer, Accepting Request, Accepting Service
Preconditions:	<ul style="list-style-type: none">- There was a Post a Message Request underway- The Server received Trip Info
Postconditions:	<ul style="list-style-type: none">- The Server failed to add Trip Info to the Message Board
Operation:	12.4.1: Report Failure
Cross References:	Use Cases: Posting a Message, Posting Offer, Posting Request, Posting Service, Accepting Offer, Accepting Request, Accepting Service
Preconditions:	<ul style="list-style-type: none">- There was a Post a Message Request underway- The Client Software received Post a Message Failure state
Postconditions:	<ul style="list-style-type: none">- The Client Software reported Failure

SDD: Browsing Account

Operation: 13: Check User's Profile

Cross References: Use Cases: Browsing Account

Preconditions: - A User was Browsing their Account

Postconditions: - The Client Software received request to Check Profile

Operation: 13.2 Request User

Cross References: Use Cases: Browsing Account

Preconditions: - A User was Browsing their Account
- The Client Software received request to Check Profile

Postconditions: - The Server received request to return User

Operation: 13.2: User

Cross References: Use Cases: Browsing Account

Preconditions: - A User was Browsing their Account
- The Server received request to return User

Postconditions: - The Server returned User to the Client Software

Operation: 13.3: Draw Profile

Cross References: Use Cases: Browsing Account

Preconditions: - A User was Browsing their Account
- The Server returned User to the Client Software

Postconditions: - The Client Software displayed the User's profile on screen

SSD: Change Settings

Operation:	14: Change Settings
Cross References:	Use Cases: Change Settings
Preconditions:	- There was a Change Setting request underway
Postconditions:	- The Client Software received a request to Change Settings
Operation:	14.1: Settings Form
Cross References:	Use Cases: Change Settings
Preconditions:	- There was a Change Setting request underway - The Client Software received a request to Change Settings
Postconditions:	- The Client Software displayed Setting Form to the screen
Operation:	15: Settings Info
Cross References:	Use Cases: Change Settings
Preconditions:	- There was a Change Setting request underway - The Client Software displayed Setting Form to the screen
Postconditions:	- The Client Software received Settings Info from Setting Form

Operation: 15.1: Invalid Info

Cross References: Use Cases: Change Settings

Preconditions: - There was a Change Setting request underway

Postconditions: - The Change Settings request was deleted

- A new Changes Settings request was created and associated with the current Settings

- Settings Form was displayed

- Failed to change settings error displayed

Operation: 12.4.1: Report Success

Cross References: Use Cases: Change Settings

Preconditions: - There was a Change Setting request underway

Postconditions: - The Client Software reported Success state to User

SSD: Recover Password

Operation:	16: Recover Password
Cross References:	Use Cases: Recover Password
Preconditions:	- There was a Recover Password request underway
Postconditions:	- The Client Software got a request to Recover Password
Operation:	16.1: Verify Email
Cross References:	Use Cases: Recover Password
Preconditions:	- There was a Recover Password request underway - The Client Software got a request to Recover Password
Postconditions:	- SMTP sent out Verification Email
Operation:	16.2: Listen
Cross References:	Use Cases: Recover Password
Preconditions:	- There was a Recover Password request underway - SMTP sent out Verification Email
Postconditions:	- POP3 listened for a reply

Operation: 17: Valid Reply

Cross References: Use Cases: Recover Password

Preconditions: - There was a Recover Password request underway
- POP3 Heard a reply

Postconditions: - POP3 sent Valid Reply state to Client Software

Operation: 17.1: Password Reset Form

Cross References: Use Cases: Recover Password

Preconditions: - There was a Recover Password request underway

Postconditions: - The Client Software displayed the Password Reset Form to screen

Operation: 18: Password info

Cross References: Use Cases: Recover Password

Preconditions: - There was a Recover Password request underway

Postconditions: - The Client Software received Password Reset Information

Operation: 18.1: Invalid Info

Cross References: Use Cases: Recover Password

Preconditions:

- There was a Recover Password request underway
- The Client Software received Password Reset Information

Postconditions:

- The current Password Reset request was deleted
- A new instance of Password Reset request was created and associated with the current Password Reset
- User profile was displayed
- Failure to Reset Password was displayed

Operation: 18.2: Change PassHash

Cross References: Use Cases: Recover Password

Preconditions:

- There was a Recover Password request underway

Postconditions:

- The Server received a new PassHash for the current User
- User PassHash updated

Operation: 18.3: Success

Cross References: Use Cases: Recover Password

Preconditions:

- There was a Recover Password request underway

Postconditions:

- The Client Software received Password Reset Success state

Operation: 18.4: Report Success

Cross References: Use Cases: Recover Password

Preconditions:

- There was a Recover Password request underway
- The Client Software received Password Reset Success state

Postconditions:

- The Client Software reported Password Reset Success to the User

Operation: 18.4: Failure

Cross References: Use Cases: Recover Password

Preconditions:

- There was a Recover Password request underway

Postconditions:

- The Client Software received Password Reset Fail state

Operation:

Cross References: Use Cases: Recover Password

Preconditions:

- There was a Recover Password request underway
- The Client Software received Password Reset Fail state

Postconditions:

- The Client Software reported Password Reset Failure to the User

Operation: 19: Invalid Reply

Cross References: Use Cases: Recover Password

Preconditions:

- There was a Recover Password request underway
- SMTP sent out a email
- POP3 Hears nothing

Postconditions:

- POP3 reported Invalid Reply to Server

Operation: 19.1: Failure

Cross References: Use Cases: Recover Password

Preconditions:

- There was a Recover Password request underway
- POP3 reports Invalid Reply to Server

Postconditions:

- The Client Software received the Reset Password fail state

Operation: 19.1.1: Report Failure

Cross References: Use Cases: Recover Password

Preconditions:

- There was a Recover Password request underway
- The Client Software received the Reset Password fail state

Postconditions:

- The Client Software displayed Reset Password Failure to screen
- The current Reset Password request was deleted
- The User's page was loaded

SSD: Delete Account

Operation: 20: Delete Account

Cross References: Use Cases: Delete Account

Preconditions: - The Client Software received a Delete Account Request

Postconditions: - The Server received a Delete Account Request

Operation: 21: Confirm

Cross References: Use Cases: Delete Account

Preconditions: - The Client Software received a Delete Account request

Postconditions: - A confirmation window appeared on screen

Operation: 21.1: Delete Account

Cross References: Use Cases: Delete Account

Preconditions: - A User account with UUID exists
- A UserTable is Initialized

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

SSD : Leave Review

Operation:	Add Rating
Cross References:	Use Cases: Leave Review
Preconditions:	- The User requests to add a Rating
Postconditions:	- The Client Software received the Add Rating request
Operation:	Insert Rating
Cross References:	Use Cases: Leave Review
Preconditions:	- The Client Software received the Add Rating request
Postconditions:	- The Server had received the Add Rating request

SSD: Cancel Trip

Operation: Cancel Trip

Cross References: Use Cases: Cancel Trip

Preconditions: - User requests to Cancel Trip

Postconditions: - Client Software received request to Cancel Trip

Operation: Confirm

Cross References: Use Cases: Cancel Trip

Preconditions: - Client Software received request to Cancel Trip

Postconditions: - A Confirm Cancel window was displayed to the screen

Operation: Cancel Trip

Cross References: Use Cases: Cancel Trip

Preconditions: - Client Software requests to Cancel Trip

Postconditions: - Server received the request to cancel trip

- Trip was canceled

SSD: Edit Trip

Operation:	Edit a Message
Cross References:	Use Cases: Edit Trip
Preconditions:	- The User requests to Edit a Message
Postconditions:	- The Client Software received a request to Edit a Message
Operation:	Message info
Cross References:	Use Cases: Edit Trip
Preconditions:	- The Client Software received a request to Edit a Message
Postconditions:	- New Message info was sent to the Client Software
Operation:	Overwrite Message
Cross References:	Use Cases: Edit Trip
Preconditions:	- The Client Software received a request to Edit a Message
Postconditions:	- The Server Overwrites the Message with the new one provided by the Client Software

C.D. Message

Operation: toString()

Cross References: Use Cases: Message

Preconditions: - body was initialized

Postconditions: - a new reference to body was returned

Operation: getCreator()

Cross References: Use Cases: Message

Preconditions: - creator was initialized

Postconditions: - a new reference to creator was returned

Operation: getPostTime()

Cross References: Use Cases: Message

Preconditions: - postTime was initialized

Postconditions: - a new reference to postTime was returned

Operation: getBody()

Cross References: Use Cases: Message

Preconditions: - body was initialized

Postconditions: - a new reference to body was returned

Operation: getTrip()

Cross References:	Use Cases: Message
Preconditions:	- trip was initialized
Postconditions:	- a new reference to trip was returned

Operation:	setTrip(trip: Trip)
Cross References:	Use Cases: Message
Preconditions:	- Void
Postconditions:	- this.trip was assigned trip

Operation:	setBody(body: String)
Cross References:	Use Cases: Message
Preconditions:	- Void
Postconditions:	- this.body was assigned body

C.D. MessageHeader

Operation:	MessageHeader(time: String, UUID: String, title: String)
Cross References:	Use Cases: MessageHeader
Preconditions:	- Void
Postconditions:	- a new MessageHeader instance was initialized - UMID, title, and hidden were all assigned
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
Operation:	getUMID()
Cross References:	Use Cases: MessageHeader
Preconditions:	- UMID was initialized
Postconditions:	- a new reference to UMID was returned

Operation: getTitle()
Cross References: Use Cases: MessageHeader
Preconditions: - title was initialized
Postconditions: - a new reference to title was returned

Operation: isHidden()
Cross References: Use Cases: MessageHeader
Preconditions: - hidden was initialized
Postconditions: - a new reference to hidden was returned

Operation: setTitle(title: String)
Cross References: Use Cases: MessageHeader
Preconditions: - Void
Postconditions: - this.title was assigned title

Operation: setHidden(hidden: Boolean)
Cross References: Use Cases: MessageHeader
Preconditions: - Void
Postconditions: - this.hidden was assigned hidden

C.D. Trip

Operation:	Trip()
Cross References:	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

Operation: setOriginTime(originTime: String)

Cross References: Use Cases: Trip

Preconditions: - Void

Postconditions: - this.originTime was assigned originTime

Operation: setDestinTime(destinTime: String)

Cross References: Use Cases: Trip

Preconditions: - Void

Postconditions: - this.destinTime was assigned destinTime

Operation: setReturnTime(returnTime: String)

Cross References: Use Cases: Trip

Preconditions: - Void

Postconditions: - this.returnTime was assigned returnTime

Operation: setOriginLoc(originLoc: String)
Cross References: Use Cases: Trip
Preconditions: - Void
Postconditions: - this.originLoc was assigned originLoc

Operation: setDestinLoc(destinLoc: String)
Cross References: Use Cases: Trip
Preconditions: - Void
Postconditions: - this.destinLoc was assigned destinLoc

Operation: setReturnLoc(returnLoc: String)
Cross References: Use Cases: Trip
Preconditions: - Void
Postconditions: - this.returnLoc was assigned returnLoc

Operation: setPassengerCount(passengerCount: Integer)
Cross References: Use Cases: Trip
Preconditions: - Void
Postconditions: - this.passengerCount was assigned passengerCount

Operation: getRiders()
Cross References: Use Cases: Trip
Preconditions: - riders was initialized
Postconditions: - a new reference to riders was returned

Operation: getRequirements()
Cross References: Use Cases: Trip
Preconditions: - requirements was initialized
Postconditions: - a new reference requirements was returned

Operation: getOriginTime()
Cross References: Use Cases: Trip
Preconditions: - originTime was initialized
Postconditions: - a new reference to originTime was returned

Operation: getDestinTime()
Cross References: Use Cases: Trip
Preconditions: - destinTime was initialized
Postconditions: - a new reference to destinTime was returned

Operation: getReturnTime()
Cross References: Use Cases: Trip
Preconditions: - returnTime was initialized
Postconditions: - a new reference to returnTime was returned

Operation: getOriginLoc()
Cross References: Use Cases: Trip
Preconditions: - originLoc was initialized
Postconditions: - a new reference to originLoc was returned

Operation: getDestinLoc()
Cross References: Use Cases: Trip
Preconditions: - destinLoc was initialized
Postconditions: - a new reference to destinLoc was returned

Operation: getReturnLoc()
Cross References: Use Cases: Trip
Preconditions: - returnLoc was initialized
Postconditions: - a new reference to returnLoc was returned

Operation: getPassengerCount()
Cross References: Use Cases: Trip
Preconditions: - passengerCount was initialized
Postconditions: - a new reference to passengerCount was returned

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: getUUID()

Cross References: Use Cases: User

Preconditions: - UUID was initialized

Postconditions: - a new reference to UUID was returned

Operation: getPassHash()

Cross References: Use Cases: User

Preconditions: - passHash was initialized

Postconditions: - a new reference to passHash was returned

Operation: getName()
Cross References: Use Cases: User
Preconditions: - name was initialized
Postconditions: - a new reference to name was returned

Operation: getPicture()
Cross References: Use Cases: User
Preconditions: - picture was initialized
Postconditions: - a new reference to picture was returned

Operation: getAge()
Cross References: Use Cases: User
Preconditions: - age was initialized
Postconditions: - a new reference to age was returned

Operation: getGender()
Cross References: Use Cases: User
Preconditions: - gender was initialized
Postconditions: - a new reference to gender was returned

Operation: getContact()
Cross References: Use Cases: User
Preconditions: - contact was initialized
Postconditions: - a new reference to contact was returned

Operation: getRating()
Cross References: Use Cases: User
Preconditions: - rating was initialized
Postconditions: - a new reference to rating was returned

Operation: setPassHash(passHash: Integer)
Cross References: Use Cases: User
Preconditions: - Void
Postconditions: - this.passHash was assigned passHash

Operation: setName(name: String)
Cross References: Use Cases: User
Preconditions: - Void
Postconditions: - this.name was assigned name

Operation: setPicture(path: String)
Cross References: Use Cases: User
Preconditions: - Void
Postconditions: - this.picture was assigned path

Operation: setAge(age: Integer)
Cross References: Use Cases: User
Preconditions: - Void
Postconditions: - this.age was assigned age

Operation: setContact(contact: String)
Cross References: Use Cases: User
Preconditions: - Void
Postconditions: - this.contact was assigned contact

Operation: setGender(gender: Boolean)
Cross References: Use Cases: User
Preconditions: - Void
Postconditions: - this.gender was assigned gender

Operation: insertRating(rating: Integer)
Cross References: Use Cases: User
Preconditions: - Void
Postconditions: - this.rating average was updated

C.D. Message Board

Operation: 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

Operation:	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: get(UUID: String)

Cross References: Use Cases: User Table

Preconditions: - UserTable was initialized

Postconditions: - User with UUID was returned

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

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

Cross References: Use Cases: UserTableInterface

Preconditions: - 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: postService(board: MessageBoard)

Cross References: Use Cases: UserTableInterface

Preconditions: - 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

Operation:	pushReminders()
Cross References:	Use Cases: UserTableInterface
Preconditions:	- 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