

# Chapter 1

## 1

existsAvailableTaxiDriver(request, zone):	ciao	ciao	
	ciao ciao ciao ciao	ciao	
	ciao	ciao	
	ciao	ciao	
existsAvailableTaxiDriver(request, zone):	ciao	ciao	
	ciao	ciao	

asdoabdso asdonadon aosndaond

<div>Chapter 2</div> <div>2</div>			
existsAvailableTaxiDriver(request, zone):	ciao	ciao	
	ciao ciao ciao ciao	ciao	
	ciao	ciao	
	ciao	ciao	
existsAvailableTaxiDriver(request, zone):	ciao ciao	ciao ciao	
Table 2.1: R, C ripple size  asdoabdso asdonadon aosndaond			

# Chapter 3

## 3

existsAvailableTaxiDriver(request, zone)	
I: an array of zones	O: the zone are inserted in the database
ciao ciao ciao ciao ciao	ciao
existsAvailableTaxiDriver(request, zone)	
I: an array of zones	O: the zone are inserted in the database
ciao ciao ciao ciao ciao	ciao

Table 3.1: R, C ripple size

asdoabdso asdonadon aosndaond

## Chapter 4

# Taxi Management System

(Caller, Called)

### 4.1 Request Management, Data Access Utilities

insertRequest()	
null reservations	
updateReservationList	

### 4.2 Reservation Management, Data Access Utilities

insertReservation(passengerId, origin, destination, date, time)	
Input	Effect
A null parameter	A NullPointerException is raised.
Formally valid arguments	An entry containing the reservation data is inserted into the database.
updateReservationList(...)	
Input	Effect
A null parameter	A NullPointerException is raised.
Formally valid arguments	An entry containing the reservation data is inserted into the database for each reservation? What is this method for?.

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### 4.3 Taxi Management, Data Access Utilities Management

updateQueues	
Input	Effect
a null parameter	A NullPointerException is raised.
an array containing some null values	exception
array of queues, with some queues containing null values	A NullPointerException is raised.
valid arguments	ok
updateLocation	
Input	Effect
A null parameter	A NullPointerException is raised.
valid	inserted in DB
updateTaxiStatus	
Input	Effect
A null parameter	A NullPointerException is raised.
valid	inserted in DB

### 4.4 Taxi Management, Location Management

isLocationInsideCity(location)	
Input	Effect
A null parameter	A NullPointerException is raised.
A location whose coordinates are invalid	An InvalidLocationException is raised.
A location outside the city	Returns false.
A location inside the city	Returns true
getZone(location)	
Input	Effect
A null parameter	A NullPointerException is raised.
A location whose coordinates are invalid	An InvalidLocationException is raised.
A location outside the city	An InvalidLocationException is raised.
A location inside the city	The id of the zone to which the location belongs.

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## 4.5 Reservation Management, Location Management

getZone(location)	
Input	Effect
A null parameter	A NullPointerException is raised.
A location whose coordinates are invalid	An InvalidLocationException is raised.
A location outside the city	An InvalidLocationException is raised.
A location inside the city	The id of the zone to which the location belongs.
checkTaxiDriverLocation(currentLocation, meetingPoint)	
Input	Effect
A null parameter	A NullPointerException is raised.
A currentLocation whose coordinates are invalid	An InvalidLocationException is raised.
A meetingPoint whose coordinates are invalid	An InvalidLocationException is raised.
A currentLocation outside the city	Returns false.
A meetingPoint outside the city	An InvalidLocationException is raised.
Both currentLocation and meetingPoint inside the city, but not within 50m (?) from one another	Returns false.
Both currentLocation and meetingPoint inside the city, within 50m (?) from one another	Returns false.

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## 4.6 Reservation Management, Request Management

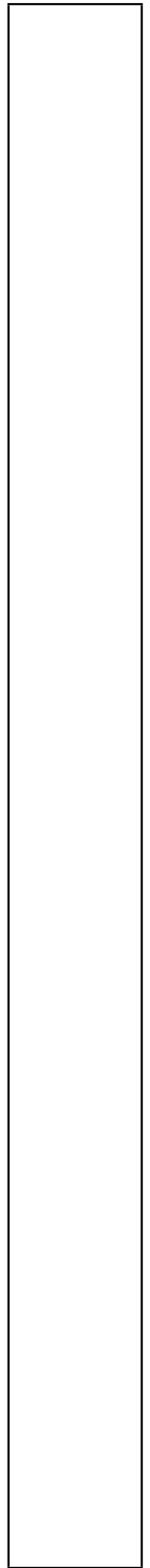
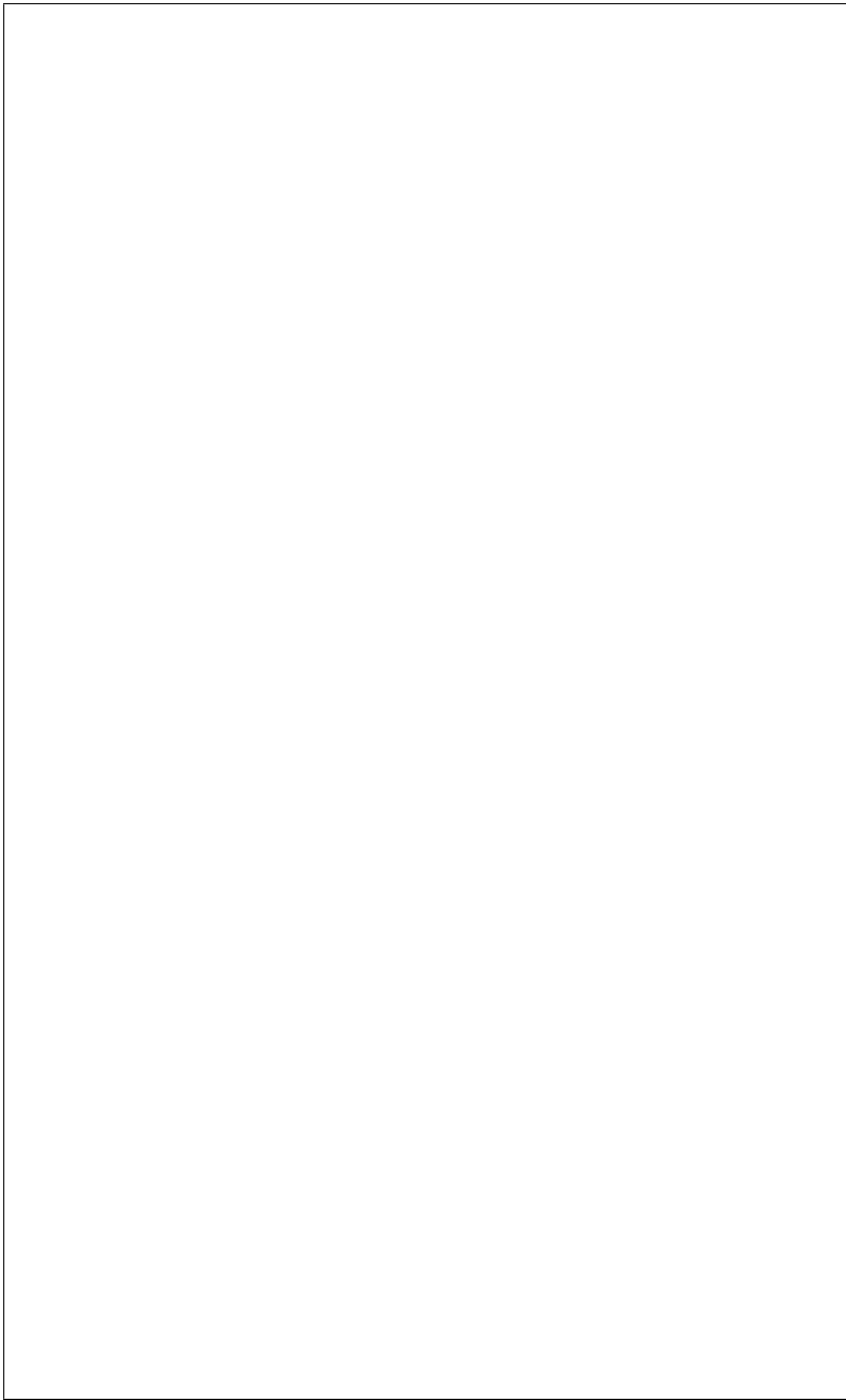
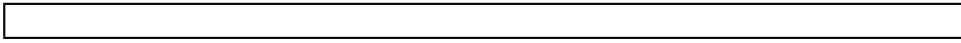
requestTaxi(passengerId, passengerLocation, destination)	
Input	Effect
A null parameter	A NullArgumentException is raised.
A passengerId not correctly formatted	An InvalidArgumentFormatException is raised.
A passengerLocation whose coordinates are invalid	An InvalidLocationException is raised.
A destination whose coordinates are invalid	An InvalidLocationException is raised.
invalid values (?)	error
A passengerLocation outside the city	A passengerId not correctly formatted
A valid set of parameters	A new request is created and handled; refer to the RASD for the specific outcomes of this operation.

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## 4.7 Request Management, Taxi Management

existsAvailableTaxiDriver(request, zone)	
Input	Effect
A null parameter	A NullPointerException is raised.
An inexistent zone	An InvalidArgumentValueException is raised.
A zone with invalid fields	An InvalidArgumentValueException is raised.
A valid set of parameters	true if a taxi driver is available to serve the request, false otherwise
getETA(taxiDriver, passengerLocation)	
Input	Effect
A null parameter	A NullPointerException is raised.
A passengerLocation whose coordinates are invalid	An InvalidLocationException is raised.
An inexistent taxi driver	An InvalidArgumentValueException is raised.
A valid taxiDriver and passengerLocation	Returns the estimated time of the arrival of the taxi to the location.
taxiDriverDroppedRequest(taxiId)	
Input	Effect
An invalid taxiId	An InvalidArgumentValueException is raised.
A valid taxiId	If the taxi driver is allowed to drop the request (check RASD conditions), it will return true, notify the passenger that his request has been dropped and update the database accordingly; otherwise it will return false.
sendCurrentLocation(taxiId, location)	
Input	Effect
A null location	A NullPointerException is raised.
A location whose coordinates are invalid	An InvalidLocationException is raised.
An invalid taxiId	An InvalidArgumentValueException is raised.
taxiId is valid, location is inside city	Location is set as the new position of the taxi, the taxi is moved into the new zone, its status is set as available and the modification is written in the database.
taxiId is valid, location is outside city	Location is set as the new position of the taxi, the taxi is moved into the out-of-city queue, its status is set as outside-city and the modification is written in the database.





## Chapter 5

# System Administration

### 5.1 Zone Management, Data Access Utilities

insertZones(Zone[] zones)	
Input	Effect
A null parameter	A NullPointerException is raised.
An empty array	An InvalidArgumentValueException is raised.
An array containing some null values	A NullPointerException is raised.
An array of non-null, but invalid zones	An InvalidArgumentValueException is raised.
An array of valid, but already existing zones	An InvalidArgumentValueException is raised.
A non-empty array of valid and not existing zones	The zones are inserted in the database.

insertZoneZone zone	
A null parameter	A NullPointerException is raised.
An invalid zone	An InvalidArgumentValueException is raised.
A valid, but already existent zone	An InvalidArgumentValueException is raised.
A valid and not existing zone	The zone is inserted in the database.

SHOULD

updateZones(Zone[] zones)	
Input	Effect
A null parameter	A NullPointerException is raised.
An empty array	An InvalidArgumentValueException is raised.
An array containing some null values	A NullPointerException is raised.

An array of non-null, but invalid or inexistent zones	An InvalidArgumentValueException is raised.
A non-empty array of valid, existing zones	The data associated with the specified zones is updated in the database.

getZoneList()	
Input	Effect
Nothing	Returns the zones that are stored in the database.

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WE ADD ADMINID HERE?

## 5.2 API Permission Management, Data Access Utilities

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## 5.3 Taxi Driver Management

### 5.3.1 Data Access Utilities

insertTaxiDrivers(TaxiDriver[] tds)	
Input	Effect
A null parameter	A NullPointerException is raised.
An empty array	An InvalidArgumentValueException is raised.
An array containing some null values	A NullPointerException is raised.
An array of valid, but already existing taxi drivers	An InvalidArgumentValueException is raised.
A non-empty array of valid and not existing taxi drivers	The taxi drivers are inserted in the database.
insertTaxiDriver(TaxiDriver td)	
A null parameter	A NullPointerException is raised.
An invalid taxi driver	An InvalidArgumentValueException is raised.
A valid, but already existent taxi driver	An InvalidArgumentValueException is raised.
A valid and not existing taxi driver	The taxi driver is inserted in the database.
(?) updateTaxiDriver(TaxiDriver td)	
A null parameter	A NullPointerException is raised.
An inexistent taxi driver	An InvalidArgumentValueException is raised.
A taxi driver with some null or empty fields	An InvalidArgumentValueException is raised.
A valid taxi driver	The data associated with the specified taxi driver is updated in the database.

should we add adminid here?

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## Chapter 6

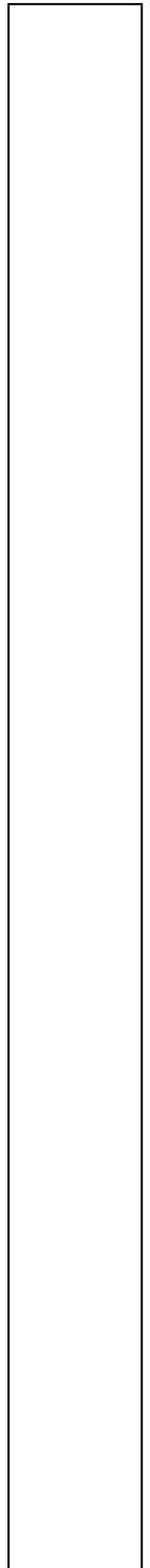
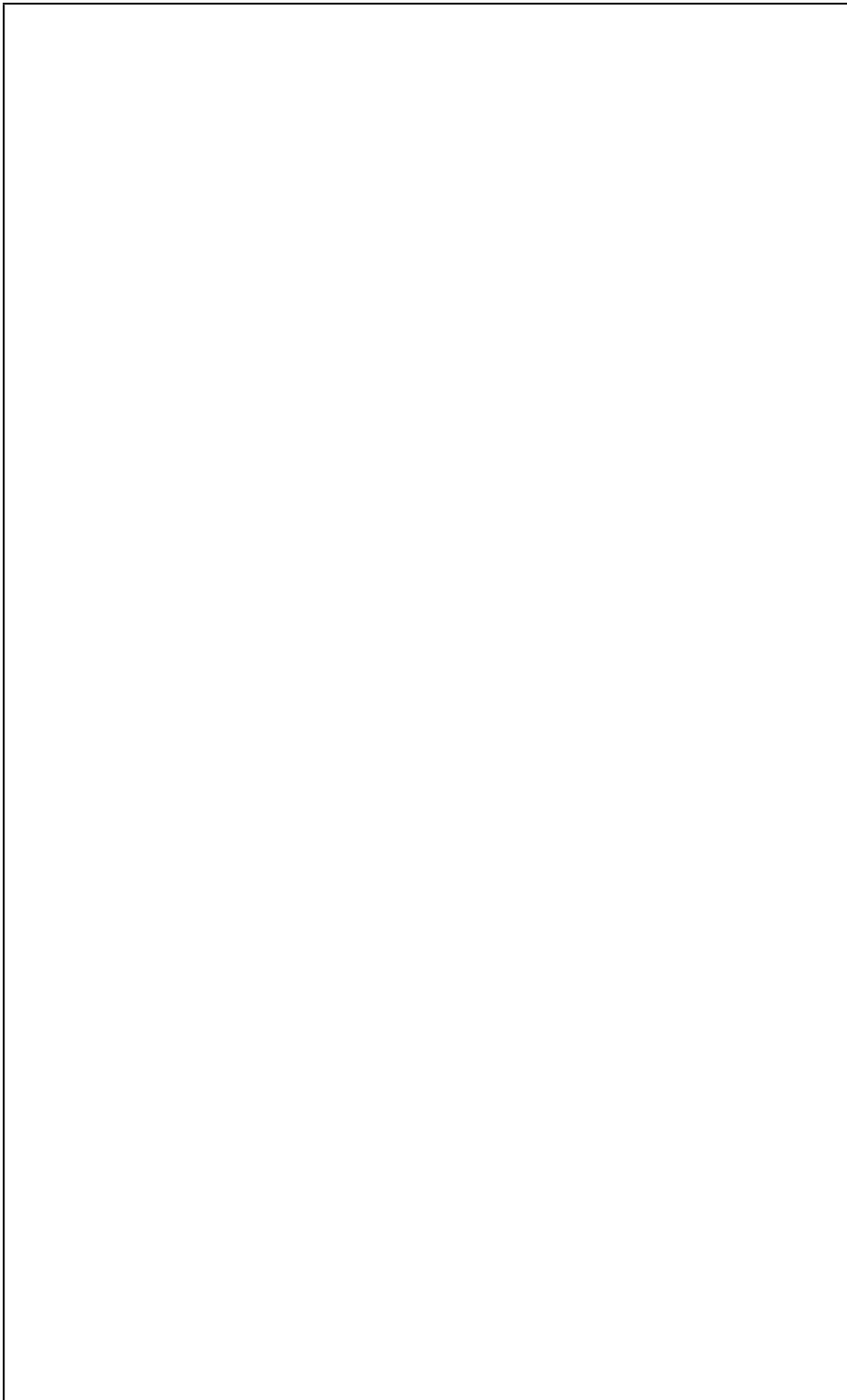
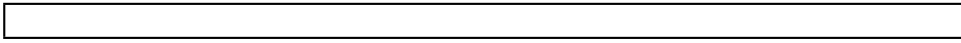
# Account Management

6.1 Passenger Registration, Data Access Utilities

6.2 Login, Data Access Utilities

6.3 Password Retrieval, Data Access Utilities

6.4 Settings Management, Data Access Utilities



## Chapter 7

# Component-Component Integration

### 7.1 Remote Services Interface, Taxi Management System

requestTaxi(passengerId, passengerLocation, destination)	
Input	Effect
A null parameter	A NullArgumentException is raised.
A passengerId not correctly formatted	An InvalidArgumentFormatException is raised.
A passengerLocation whose coordinates are invalid	An InvalidLocationException is raised.
A destination whose coordinates are invalid	An InvalidLocationException is raised.
invalid values (?)	error
A passengerLocation outside the city	A passengerId not correctly formatted
A valid set of parameters	A new request is created and handled; refer to the RASD for the specific outcomes of this operation.

endRide(taxiId, currentLocation)	
A null parameter	A NullArgumentException is raised.
invalid taxiId	error
non existing taxiId	error
non existing currLOc	error

endRide(taxiId, currentLocation)	
A null parameter	A NullArgumentException is raised.
invalid taxiId	error
non existing taxiId	error
invalid currLoc	
non existing currLOc	14

togglePressed(taxiDriverId)	
invalid	
null	
non existing	

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7.2 Remote Services Interface, Account Management

(?)insertPassenger
(?)updatePassenger
(?)deletePassenger

7.3 Remote Services Interface, System Administration

WE SHOULD BE UNIFORM IN NOTATION, AND PROBABLY ALSO REVISE A BIT THE DD

we should be uniform in notation, and probably also revise a bit the dd

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checkPassword(adminId, password)	
null	
invalid	
non-existing adminId	
verifyPermission(appId, operation)	
A null parameter	
invalid	
non existing appId	
operation not existing(???)	
permission not given to appId for the operation	
permission granted	
sendData(data)	
invalid format	
null	
wrong data	
insertZones	
invalid format	
null	
wrong data	
askZoneList(adminId)	
Input	Effect
An invalid adminId	An InvalidSecurityLevelException is raised.
A valid adminId	Returns the zones that are stored in the database.
updateZones(Zone[] zones)	
Input	Effect
A null parameter	A NullArgumentException is raised.
An empty array	An InvalidArgumentValueException is raised.
An array containing some null values	A NullArgumentException is raised.
An array of non-null, but invalid or inexistent zones	An InvalidArgumentValueException is raised.
A non-empty array of valid, existing zones	The data associated with the specified zones is updated in the database.
insert,	
invalid format	
null	
wrong data	16

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