REQUEST HANDLER

1. Remote Service Interface/account manager

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| --- | --- |
| register (email, idDrivingLicense, name, surname, cardCircuit, cardExpiringDate, cardNumber, cardCVV) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid email | InvalidArgumentValueException thrown |
| Invalid idDrivingLicense | InvalidArgumentValueException thrown |
| Invalid paymentMethod (circuit, expiring date, card’s number, CVV) | InvalidArgumentValueException thrown |
| Valid email but already existing | AlreadyExistingArgumentException thrown |
| Valid idDrivingLicense but already existing | AlreadyExistingArgumentException thrown |
| Valid parameters | The user is registered in our system and the PIN is sent to him |

|  |  |
| --- | --- |
| modifyClient(email, name, surname, cardCircuit, cardExpiringDate, cardNumber, cardCVV) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | No modification applied |
| Invalid email | InvalidArgumentValueException thrown |
| Invalid name | InvalidArgumentValueException thrown |
| Invalid surname | InvalidArgumentValueException thrown |
| Invalid paymentMethod (circuit, expiring date, card’s number, CVV) | InvalidArgumentValueException thrown |
| Valid parameters | If one of the parameter is non null it will be modified |

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| --- | --- |
| login(email, PIN) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid email | InvalidArgumentValueException thrown |
| Invalid PIN | InvalidArgumentValueException thrown |
| Valid email but not existing | NonExistingException thrown |
| Valid PIN but not existing | NonExistingException thrown |
| Valid email but not connected with the PIN | InvalidArgumentException thrown |
| Valid parameters | The user performs the login |

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| --- | --- |
| newPinRequest(email) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid email | InvalidArgumentValueException thrown |
| Valid email but not existing | NonExistingException thrown |
| Valid parameters | The system send a different PIN to the email |

1. Account Management/ Database Management System

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| --- | --- |
| updatePinUser(email, PIN) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid email | InvalidArgumentValueException thrown |
| Valid email but not existing | NonExistingException thrown |
| Valid parameters | The account manager requests to the database manager to update the PIN of the user with the specified email |

|  |  |
| --- | --- |
| modifyClient(email, name, surname, cardCircuit, cardExpiringDate, cardNumber, cardCVV) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | No modification applied |
| Invalid email | InvalidArgumentValueException thrown |
| Invalid name | InvalidArgumentValueException thrown |
| Invalid surname | InvalidArgumentValueException thrown |
| Invalid paymentMethod (circuit, expiring date, card’s number, CVV) | InvalidArgumentValueException thrown |
| Valid parameters | Account manager requests to the database to update the specified user with the non-null fields |

1. Remote Service Interface/ Car Management System

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| --- | --- |
| requestAvailableCars(position) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid position | InvalidArgumentValueException thrown |
| Valid parameters | The system returns a list of all the available cars within a fixed area from the specified position |

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| --- | --- |
| identification(PIN, licensePlate) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid PIN | InvalidArgumentValueException thrown |
| Invalid licensePlate | InvalidArgumentValueException thrown |
| Valid licensePlate but unavailable | UnavailableVehicleException thrown |
| Valid PIN but not logged in | InvalidArgumentValueException thrown |
| Valid parameters | The user identifies a car |

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| --- | --- |
| reserveCar(PIN, licensePlate) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid PIN | InvalidArgumentValueException thrown |
| Invalid licensePlate | InvalidArgumentValueException thrown |
| Valid PIN but not logged in | InvalidArgumentValueException thrown |
| Valid parameters | The user reserves the car |

1. Remote Service Interface/Notification manager

|  |  |
| --- | --- |
| notifyReservationExpired(reservation) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid reservation | InvalidArgumentValueException thrown |
| Valid parameters | The user is notified of the expiration of the reservation |

1. Remote Service Interface /Position Manager

|  |  |
| --- | --- |
| requestMyPosition(email) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid email | InvalidArgumentValueException thrown |
| Valid email but not existing | InvalidArgumentValueException thrown |
| Valid parameters | The position of the user is returned |

Assistance Interface/ Assistance Manager

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| --- | --- |
| addAssistanceRequest(licensePlate, type, description, solved) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid licensePlate | InvalidArgumentValueException thrown |
| Invalid type | InvalidArgumentValueException thrown |
| Valid parameters | An assistance request is raised |

|  |  |
| --- | --- |
| setAssistanceRequestDone(idRequestAssistance) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid idRequestAssistance | InvalidArgumentValueException thrown |
| Non existing idRequestAssistance | InvalidArgumentValueException thrown |
| Valid parameters | The assistance request is set as solved |

Assistance Manager/ Database Management System

|  |  |
| --- | --- |
| addAssistanceRequest(assistanceRequest) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid assistanceRequest | InvalidArgumentValueException thrown |
| Valid parameters | The assistance request data is added to database |

|  |  |
| --- | --- |
| modifyAssistanceRequest(idAssistanceRequest) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid idAssistanceRequest | InvalidArgumentValueException thrown |
| Valid but not existing idAssistanceRequest | InvalidArgumentValueException thrown |
| Valid parameters | The data assistance request is set as solved |

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| --- | --- |
| setCarAvailable(licensePlate) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid licensePlate | InvalidArgumentValueException thrown |
| Valid parameters | The car data is set as available |

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| --- | --- |
| setCarUnavailable(licensePlate) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid licensePlate | InvalidArgumentValueException thrown |
| Valid parameters | The car data is set as unavailable |

Car Management System/ Assistance Manager

|  |  |
| --- | --- |
| addAssistanceRequest(licensePlate, type, description, solved) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid licensePlate | InvalidArgumentValueException thrown |
| Invalid type | InvalidArgumentValueException thrown |
| Valid parameters | An assistance request is raised from car manager |

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Car Management System /Car Service

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| --- | --- |
| unlockCar(car) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid car | InvalidArgumentValueException thrown |
| Valid parameters | The car is unlocked |

Car Service / Car Management System

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| --- | --- |
| retrieveSensorValue(status) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid status | InvalidArgumentValueException thrown |
| Valid parameters | The status of the sensor of the car is returned |

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| --- | --- |
| endOfRide(rideData) | |
| ***Input parameters*** | ***Effects*** |
| Null parameter(s) | NullArguentException thrown |
| Invalid rideData | InvalidArgumentValueException thrown |
| Valid parameters | The ride data are returned to the car manager |