|  |  |
| --- | --- |
| **chargeUser(accreditedMoney, paymentInfo)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| Negative value of accreditedMoney | IllegalArgumentException is raised |
| User hasn’t enough money in his payment system | The system must put the user in the blacklist and the method returns false |
| Wrong paymentInfo | IllegalArgumentException is raised |
| User has enough money and correct paymentInfo | Return true |

Payment manager

Profile manager

|  |  |
| --- | --- |
| **profileAccess(email, psw)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| An email in the database with the corresponding password | Returns the object user, corresponding to this email |
| An email in the database with an incorrect password | An invalidPasswordException is raised |
| An email not in the database | An invalidEmailException is raised |

|  |  |
| --- | --- |
| **createProfile(form)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| Invalid data in the form | Return false |
| Correct data | The system creates a password, sends it by email to the user and the method returns true |
| Incomplete data in the form | Return false |

|  |  |
| --- | --- |
| **changeVehicleState(state, vehicle)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| Invalid state | IllegalArgumentException is raised |
| The vehicle does not exist | NullPointerException is raised |
| Correct parameters | The vehicle in the parameters must change the state in the database and the method returns true |
| The vehicle is in used | Return false |

Ride manager

|  |  |
| --- | --- |
| **createRide(user, vehicle)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| Invalid user | IllegalArgumentException is raised |
| Invalid vehicle | IllegalArgumentException is raised |
| Correct parameters | The system creates a new ride in the database, the vehicle changes its state in “in use” and the method returns true |
| The vehicle is in a state that is not “reserved” | IllegalArgumentException is raised |

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| --- | --- |
| **endRide(vehicle)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| The vehicle does not exist | IllegalArgumentException is raised |
| The vehicle’s state is not “in use” | IllegalStateException |
| Correct parameter | The system changes the state of the vehicle, locks the car, updates his position in the database and returns true |

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| --- | --- |
| **calculateFee(ride)** | |
| **Input** | **Effect** |
| Null parameter | NullArgumentException is raised |
| The ride does not exist | IllegalArgumentException is raised |
| Ride with some bonuses or ride without bonuses | The methods must calculate the correct amount of money to charge to the user |

|  |  |
| --- | --- |
| **generateMap(user)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| The user does not exist | IllegalArgumentException is raised |
| Correct parameter | The method returns a map with the vehicles |

Map manager

Reservation manager

|  |  |
| --- | --- |
| **reserveVehicle(vehicle)** | |
| **Input** | **Effect** |
| Null parameter | NullArgumentException is raised |
| The vehicle does not exist | IllegalArgumentException is raised |
| The vehicle is not in state “available” | IllegalStateException is raised |
| Correct parameter | The system creates a reservation in the database and the method returns true |

|  |  |
| --- | --- |
| **findReservation(user)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| The user does not exist | IllegalArgumentException is raised |
| Correct parameter | The method returns the reservation of the user |

Request manager

|  |  |
| --- | --- |
| **loginRequest(email, psw)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| An email in the database with the corresponding password | Load the web page for the user |
| An email in the database with an incorrect password | Sends an error message to the user |
| An email not in the database | Sends an error message to the user |

|  |  |
| --- | --- |
| **registrationRequest(form)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| Invalid data in the form | Sends an error message to the user |
| Correct data | The system creates a password, sends it by email to the user and the method sends a confirmation message to the user |
| Incomplete data in the form | Sends an error message to the user |

|  |  |
| --- | --- |
| **reservationRequest(vehicle)** | |
| **Input** | **Effect** |
| Null parameter | NullArgumentException is raised |
| The vehicle does not exist | IllegalArgumentException is raised |
| The vehicle is not in state “available” | IllegalStateException is raised |
| Correct parameter | The system creates a reservation in the database and the method sends a confirmation message to the user |

|  |  |
| --- | --- |
| **showReservation(user)** | |
| **Input** | **Effect** |
| Null parameter | NullArgumentException is raised |
| The user does not exist | IllegalArgumentException is raised |
| Correct parameter | The method returns the reservation of the user |

|  |  |
| --- | --- |
| **changeStateRequest(state, vehicle)** | |
| **Input** | **Effect** |
| Null parameters | NullArgumentException is raised |
| Invalid state | IllegalArgumentException is raised |
| The vehicle does not exist | NullPointerException is raised |
| Correct parameters | The vehicle in the parameters must change the state in the database and the method sends a confirmation message to the technician |
| The vehicle is in used | The methods sends an error message to the technician |