Vroom web app use cases
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Use Case UC1: Hiring a truck

Scope : Vroom Online Tracking Sharing System
Level : User goal
Primary Actor : Hirer
Stakeholders and Interests :
- Hirer: wants a truck catering to his needs and requires a reliable and fast delivery. Wants to make sure goods are not damaged during transportation. Wants a user-friendly interface.
- Truck driver: wants to be paid a reasonable amount for his services. Wants his truck to be pooled such that his fuel and time are efficiently used. Wants a user-friendly interface.
- Company: Wants to accurately record transactions and satisfy customer interests. Wants to ensure that Payment Authorization Service payment receivables are recorded.
- Payment Authorization Service: Wants to receive digital authorization requests in the correct format and protocol.

Preconditions: Hirer is authenticated and is identified.
Postconditions: Driver should be informed about the booking. Commissions are recorded.
Main Success Scenario:
1. Hirer opens the web application when he needs to transport goods.
2. Hirer is presented with an interface where he enters his login credentials and the required information.
3. After processing, the system displays the available trucks he can choose from.
4. Hirer selects his desired truck.
5. Hirer is redirected to the payments page.
6. Hirer pays and the system handles payment.
7. System logs a completed transaction and sends payment information to an external accounting system.
8. Truck driver is notified and confirms acceptance.
9. System logs a successful match between truck driver and hirer.
10. System suggests an optimal route for delivery to the truck driver.
11. Truck driver delivers the goods.

12. System pays the truck driver and logs the payment.
13. Hirer is notified about delivery.
14. System presents receipt to truck driver and the hirer.

Alternative Flows:

15. The website is down:
    - Error message is displayed.
16. User interface error or invalid information entered:
    2.1 User Interface is not rendered properly on older or unsupported browsers:
    - An option to view the basic HTML site is given to the hirer.
    2.2 Hirer enters invalid information:
    - Customer is redirected to the information page again.
17. There are no trucks available that match the criteria:
    - Send notifications to all drivers.
    - Request the hirer to try again in some time or to change requirements and try again.
18. Truck that was chosen is already assigned to someone else:
    - Hirer is redirected to the truck hiring page and is requested to try again.
19. Payment portal is down:
    - Error message is displayed to the hirer.
    - Alert is sent to payment portal service.
20. Payment authentication fails or transaction fails:
    - Error message is displayed asking the hirer to try again.
    - On repeated failure, payment authorization service is notified.
21. Accounting system is down
    - Transaction is logged in temporary storage and
22. Notification fails to deliver
    - It is ensured that driver is not chosen by other hirers while fixing the problem
23. Match is not logged (may lead to driver being suggested again in other lists)
    - New match(if any) is reversed
    - New hirer redirected to TRuck Hiring page
24. System does not find a valid, existing route between start location and destination
    - Hirer requested to change to valid and existing destination
25. Truck driver is unable to deliver the goods due to unforeseen circumstances
    - Hirer is refunded the money
    - Goods are delivered back to the hirer within 24 hours
26. Transaction fails
    - Truck driver is notified and the system tries again.
    - On repeated failure, payment authorization is notified.

27. Notification fails to deliver
    a. System logs the failure and tries to resend the notification
    b. On repeated failure, admin is notified
28. Receipt fails to be generated
    a. System waits for a set amount of time and retries.
    b. Truck driver and hirer are notified about the delay.

Special Requirements:
1. Booking response within 30 seconds
2. Notify drivers within 30 seconds
3. Authorization within 30 seconds
4. Self recovery system

Technology and Data variations List:
- Web application can be accessed on mobile devices, tablets and PCs of all dimensions.

Frequency of occurrence: Occurs very often concurrently from different users.

Open issues:
- Can the truck driver choose a different route if the suggested route is wrong / can't be taken?
- Does the hirer have an option to pay only a part of the money as advance and pay the rest on delivery?
- What are the tax law variations?
- What should be done if there are issues with availability and recovery of remote services?

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Use Case UC2: Bidding for the goods

Scope : Vroom Online Tracking Sharing System
Level : User goal
Primary Actor : Truck Driver
Stakeholders and Interests :

- Truck driver: wants to bid a reasonable amount above the minimum price set by the company for his services. Wants his truck to be pooled such that his fuel and time are efficiently used. Wants a user-friendly interface.
- Hirer: wants to hire a truck with the least bid to transport his goods. Wants a truck catering to his needs and requires a reliable and fast delivery.Wants a user-friendly interface.

- Company: Wants to accurately record bids in real time and satisfy customer interests. Wants to ensure that Payment Authorization Service payment receivables are recorded.
- Payment Authorization Service: Wants to receive digital authorization requests in the correct format and protocol.

Preconditions: The identified hirer should place his order in the website.

Postconditions: A truck driver with the least bid should be selected for the service

Main Success Scenario:
1. Truck drivers open the web application.
2. Truck driver is presented with an interface to view all orders in his area.
3. All truck drivers having trucks of required capacity and located within a 5km radius of the identified hirer, place closed bids.
4. The hirer chooses the truck driver with the lowest bid to transport his goods.
5. The truck driver collects goods from the hirer with directions from the webpage and proceeds to the destination.

Alternative Flows:
1. The website is down:
   ● Error message is displayed.
2. User interface error or invalid information entered:
   ● An option to view the basic HTML site is given to the driver.
3. Truck drivers bid amounts lesser than the minimum price set by the company for that particular set of goods.
   ● The driver is asked to bid again with an amount greater than the minimum price.
4. The hirer doesn't receive notifications of all the bids for his goods.
   ● The hirer is asked to reload the webpage after the admin is notified.
5. The directions to the hirer are wrong
   ● The admin is notified and new directions are sent to the driver.

Special Requirements:
5. Booking response within 30 seconds
6. Notify drivers within 30 seconds
7. Authorization within 30 seconds
8. Self recovery system

Technology and Data variations List:
- Web application can be accessed on mobile devices, tablets and PCs of all dimensions.

Frequency of occurrence: Occurs very often concurrently from different users.

Open issues:

- Can the truck driver choose a different route if the suggested route is wrong / can't be taken?
- Does the hirer have an option to pay only a part of the money as advance and pay the rest on delivery?
- What are the tax law variations?
- What should be done if there are issues with availability and recovery of remote services?
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Use Case UC3: Setting up contracts

Scope : Vroom Online Tracking Sharing System
Level : User goal
Primary Actor : Hirer
Stakeholders and Interests :
- Hirer: wants several trucks catering to his needs and requires a reliable and fast delivery. Wants to make sure goods are not damaged during transportation. Wants a user-friendly interface.
- Truck driver: wants to be paid a reasonable amount for his services. Wants his truck to be pooled such that his fuel and time are efficiently used. Wants a user-friendly interface.
- Company: Wants to accurately record transactions and satisfy customer interests. Wants to ensure that Payment Authorization Service payment receivables are recorded.
- Payment Authorization Service: Wants to receive digital authorization requests in the correct format and protocol.

Preconditions: Hirer is authenticated and is identified.
Postconditions: Drivers are informed about the contract booking. Commissions are recorded.
Main Success Scenario:
1. Hirer opens the web application when he needs to transport goods.
2. Hirer is presented with an interface to enter the required information.
3. After processing, the system redirects him to the contracts dashboard to view status of the contract.
4. Drivers view the dashboard and select the contract if they are interested.
5. Sign up for contract closes after spots are full / time expired.
6. Hirer is notified and asked to confirm acceptance of the contract.
7. Hirer pays and the system handles payment.

8. System logs a completed transaction and sends payment information to an external accounting system.
9. Truck drivers are notified and confirm acceptance.
10. System logs a successful contract between truck drivers and hirer.
11. System suggests an optimal route for delivery to the truck drivers.
12. Truck drivers deliver the goods.
13. System pays the truck drivers and logs the payment.
14. Hirer is notified about delivery.
15. System presents receipts to truck drivers and the hirer.

Alternative Flows:
1. The website is down:
   ● Error message is displayed.
2. User interface error or invalid information entered:
   2.1 User Interface is not rendered properly on older or unsupported browsers:
   ● An option to view the basic HTML site is given to the hirer.
   2.2 Hirer enters invalid information:
   ● Customer is redirected to the information page again.
3. There are no trucks available that match the criteria:
   ● Send notifications to all drivers.
   ● Request the hirer to try again in some time or to change requirements and try again.
4. Truck that was chosen is already assigned to someone else:
   ● Hirer is redirected to the truck hiring page and is requested to try again.
5. Payment portal is down:
   ● Error message is displayed to the hirer.
   ● Alert is sent to payment portal service.
6. Payment authentication fails or transaction fails:
   ● Error message is displayed asking the hirer to try again.
   ● On repeated failure, payment authorization service is notified.
7. Accounting system is down
   ● Transaction is logged in temporary storage and
8. Notification fails to deliver
   ● It is ensured that driver is not chosen by other hirers while fixing the problem
9. Match is not logged (may lead to driver being suggested again in other lists)
   ● New match(if any) is reversed
   ● New hirer redirected to TRuck Hiring page
10. System does not find a valid, existing route between start location and destination
   ● Hirer requested to change to valid and existing destination

11. Truck driver is unable to deliver the goods due to unforeseen circumstances
    - Hirer is refunded the money
    - Goods are delivered back to the hirer within 24 hours
12. Transaction fails
    - Truck driver is notified and the system tries again.
    - On repeated failure, payment authorization is notified.
13. Notification fails to deliver
    a. System logs the failure and tries to resend the notification
    b. On repeated failure, admin is notified
14. Receipt fails to be generated
    a. System waits for a set amount of time and retries.
    b. Truck driver and hirer are notified about the delay.

Special Requirements:
9. Booking response within 30 seconds
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- What are the tax law variations?
- What should be done if there are issues with availability and recovery of remote services?

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System

Log in the User → Enter Required Details
<<includes>>

Select a Truck → Match Hirer to Driver
<<includes>>

Complete Payment → Pay the Driver
<<includes>>

Suggest Optimal Route ← Give Directions to the Driver
<<includes>>

Accept Bids

Notify Hirer About Delivery

Present Contracts to the Driver
<<includes>>

Start a Contract → Make the Contract a Go
<<includes>>

Check for Hirers ← Log in the Driver
<<includes>>

Hirer

Driver