

CS5200- DATABASE PROJECT- BEST CAR RENTALS

USE-CASE ANALYSIS

Team Members:

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Use Cases:

- 1) User Registration
- 2) Login
- 3) Edit user data
- 4) Make reservation
- 5) Cancel reservation
- 6) View booking details
- 7) Manage Inventory
- 8) Add car
- 9) Edit car
- 10) Remove car
- 11) View Order
- 12) Sort through list of cars available based on price
- 13) Add/ delete Locations
- 14) Refresh Data from API at any time
- 15) Sign out

Use Case: User Registration [userRegistration]

Description: This use case will be used by user/client to create a new username and password.

Actors: Customer

Preconditions: User will automatically enter this page

Steps:

Actor Actions

User enter username, password and other details in the registration page.

System Responses

The details are stored.

Alternate path

User submits username that already exists

Error message: username already exists, please enter new username

Admin can also create an account for users. Also only an admin can create another admin user.

Use Case: User Login [userLogin]

Description: This use case will be used by user/client to login into the system.

Actors: Customer

Preconditions: User should be an registred user

Steps:

Actor Actions

System Responses

User enter username and password to login

The logged in screen is displayed.

Alternate path

User submits wrong username password.

Error message: Invalid Username or password

Use Case: Edit Account Details [editAccountDetails]

Description: This use case will be used by user/client to edit account details.

Actors: Customer

Preconditions: User should be an logged in user

Steps:

Actor Actions

System Responses

User updates email id and submits.

The details are updated.

Alternate path

User tries to change username

Error message: Username cannot be changed.

Use Case: Reserve a car [makeBooking]

Description: This use case will be used by user/client to reserve a car

Actors: Customer

Preconditions: User should have searched for cars by giving day and location. Allowed to choose only a valid date by restricting the date option shown to them.

Steps:

Actor Actions

System Responses

User selects a location, booking date and time

Displays a list of cars available. Clicking on place order, reserves the car and completes the order.

Alternate path

User tries to reserve a car without selecting a model for a given car type

Error message: Please choose a car model

Use Case: View Order History [viewOrder]

Description: This use case will be used by user/client to view a booking they placed earlier

Actors: Customer, Admin

Preconditions: Booking exists, customer authenticated

Steps:

Actor Actions

User selects view Order
history

System Responses

Booking details displayed

Use Case: Cancel Booking [cancelBooking]

Description: This use case will be used by user/client to cancel a booking they made earlier

Actors: Customer

Preconditions: Booking exists, customer authenticated

Steps:

Actor Actions

User selects cancel booking
orders
on a reserved booking

System Responses

Cancel's the booking and displays a previous list of

Alternate path

User tries to cancel old
booking

Information message: Please select valid bookings

Use Case: Manage Inventory [Refresh data from API]

Description: This use case will be used by Admin to keep the price rates updated from the API

Actors: Admin

Preconditions: Admin should be logged in

Steps:

Actor Actions

Admin selects refresh
is updated
data from API

System Responses

The old data is deleted from the database and new data
from the API to the database.

Use Case: View Order Details [viewOrder]

Description: This use case will be used by Admin to view all rental details

Actors: Admin

Preconditions: Admin authenticated

Steps:

Actor Actions

User selects display rental

System Responses

All the rental details with booking information

details

will be displayed

Use Case: Add Car to Inventory [addCar]

Description: This use case will be used by Admin to add a car to the inventory

Actors: Admin

Preconditions: Admin should be logged in

Steps:

Actor Actions

System Responses

Admin can add a new car model
to the inventory

Stores the new car to the inventory.

Post condition: System will display this car along with other cars.

Alternate path

Admin tries to add a car
required without giving car type
information

Error message: Please select car type from drop down
fields.

Use Case: Remove Car from Inventory [deleteCar]

Description: This use case will be used by Admin to remove a car from the inventory

Actors: Admin

Preconditions: Car exists, Admin authenticated and admin is in manage inventory page

Steps:

Actor Actions

System Responses

Admin selects a car from
manage inventory page
and selects delete

Removes the selected car from inventory.

Post condition: System will not display this car when a user searches for a car.

Alternate path

Admin selects delete without
selecting a car

Information message: Please select a car.

Use Case: Edit Car Information [editCar]

Description: This use case will be used by Admin to update existing car's details in the inventory

Actors: Admin

Preconditions: Car exists, Admin authenticated and admin is in manage inventory page

Steps:

Actor Actions

System Responses

Admin selects a car from

Updates the selected car's details in the inventory.

manage inventory page
and selects edit

Post condition: System will display this car with updated details when a user searches for a car.

Alternate path

Admin selects edit without selecting a car Information message: Please select a car.

Use Case: Sort Cars [sortByTotalPrice]

Description: This use case will be used by Customer to sort the result returned after searching for rental cars

Actors: Customer

Preconditions: Customer should have searched for cars

Steps:

Actor Actions

Customer selects Sort from
the inventory.
List Of Car Rental page

System Responses

Updates the List Of Car Rental page details based one
on the Total Price

Post condition: System will display list of car types with available car models

Use Case: Add/Delete location [adddeletelocation]

Description: This use case will be used by admin to add or delete from the list of locations

Actors: Admin

Preconditions:List of locations are available

Steps:

Actor Actions

Adds a new location

System Responses

Adds the location in the inventory

Post condition: The new locations will be displayed. The rental information for this new location will be fetched from the API and updated into the database automatically. Old data is deleted.

Use Case: SignOut [signOut]

Description: This use case will be used by customer and admin to logout of their accounts

Actors: Customer and Admin

Preconditions: They are logged in to their accounts

Steps:

Actor Actions

Chooses logout

System Responses

Logs them out of their account

Post condition: Customer and admin will be only able to view the site and not make any changes.

Alternate path

Close the browser

Information Message: Browser closed.