

**Team:** Nolan Cretney, Nathan Carmine, Monte Anderson, Jackson Mediavilla

**Title:** Hotel Reservation System

**Summary:** Using a database from online about hotel rates, locations, and possibly airline fair, we will create something like a mock version of Travelocity or Trivago. We will grab from the database, and use different classes to get details about the locations, accommodations, number of rooms vacant, etc. The users will have to sign up before using this service.

- **Actors:**

- We will want to create a **User** actor, but with two different sub-user types.
  - **SearchUser** actor will be someone who is looking to book a room at some location
  - **BookedUser** actor who will be someone who has already booked a vacation
- We will want to create an **Administrator** actor, who can change website rates/information

- **Functionality:**

- Customers can sign up
- Customers can reserve rooms for X number of days.
  - System to calculate total rates over days, apply deals, etc.
- Customers can choose how to pay (Credit Card, cash, etc)
- Customers can only make one reservation at a time, but can go back and change it.
- Customer able to compare multiple hotels side by side.
- Customer can see the hotel amenities (pools, rec center, etc)
- Administrator can change user information or database/site information.
- Administrator can search for users to edit information.
- Customer/Admin able to search through a list of hotels by name.
- Customer/Admin are able to do compounded searching/sorting (ie, looking in San Diego, but sorting by price)
- Creating a functional UI for the user to navigate easily.

[EXTRA]

- Show the weather during the reservation stay.
- Show the activities to do around the hotel (like tourist sites).

## **User Requirements**

<b>ID</b>	<b>Requirement</b>	<b>Actor</b>
UR-001	User should be able to book a reservation	SearchUser
UR-002	User should be able to cancel a reservation	BookedUser
UR-003	User should be able to pay with credit card only	SearchUser, BookedUser
UR-004	User should be able to see the amenities of the hotel they are looking at	SearchUser, BookedUser
UR-005	User should be able to compare different hotels to each other	SearchUser, BookUser
UR-006	User should be able to change userinfo or DB info	Admin
UR-007	User should be able to create an account that has their booking information as well as credit information, etc.	SearchUser, BookedUser
UR-008	User should be able to search for hotels and sort by name, location, price range, or ratings	SearchUser, Admin, BookedUser

## **Business Requirements**

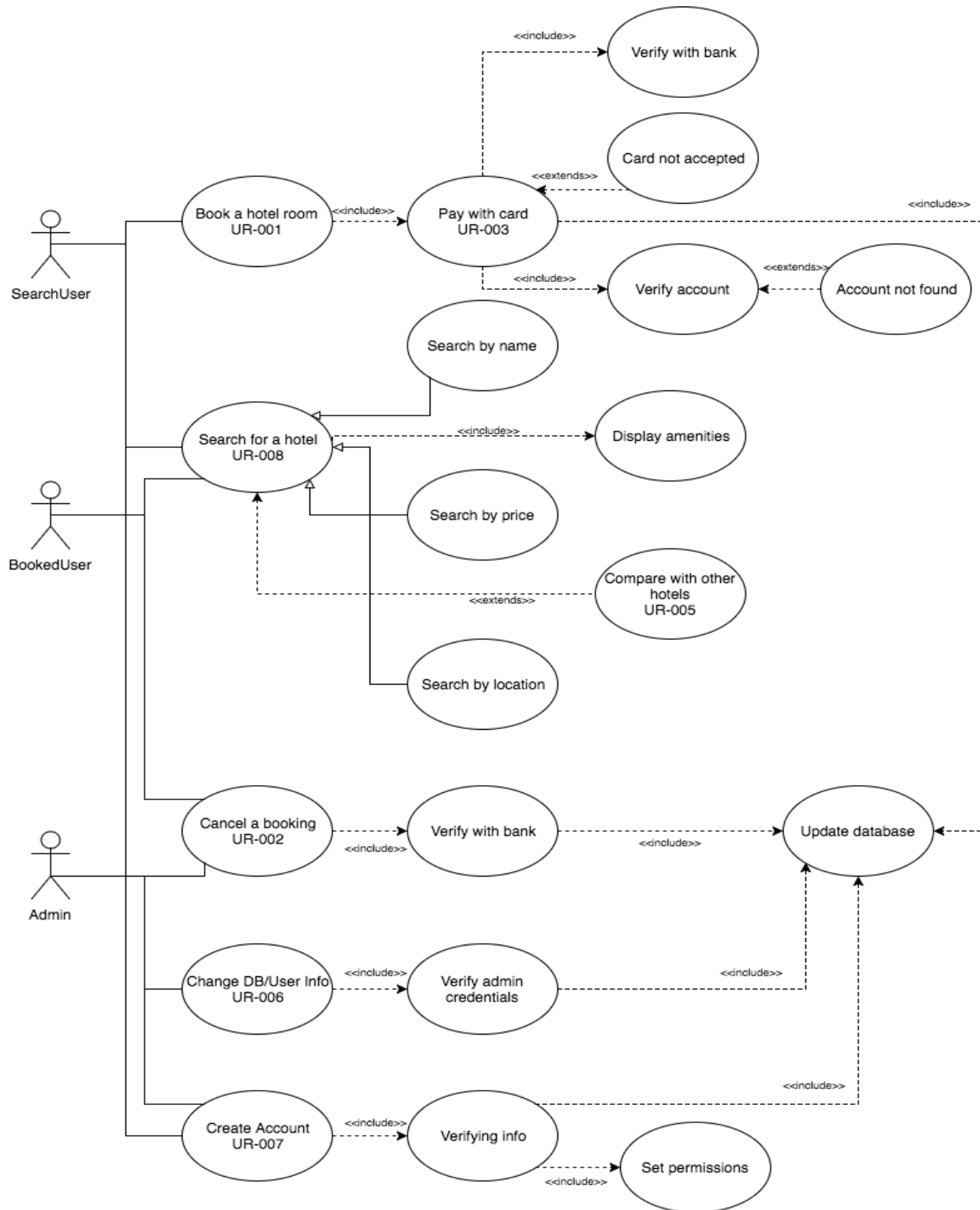
<b>ID</b>	<b>Requirement</b>	<b>Actor</b>
BR-001	If a user is paying by card, we can only accept MasterCard or Visa	SearchUser
BR-002	If a user is paying by card, need to validate card info with bank	SearchUser, BookedUser

BR-003	If a hotel requires a minimum amount of days to make a reservation, that information needs to be displayed to the user	SearchUser, BookedUser,
BR-004	The information that is displayed for the rates comes directly from the hotels themselves	SearchUser, BookedUser

### **Non-Functional Requirements**

ID	Requirement	Actor
NFR-001	If an admin is editing DB info, the downtime of the DB should be less than 1 hour	Admin
NRF-002	When a user goes to book a hotel room, it should not take less than 10 seconds before timing out	SearchUser
NRF-003	When user tries to perform an action on the app and they have not logged in yet, they should be prompted to	SearchUser, BookedUser, Admin
NRF-004	When a user tries to search and compare hotels, they should be able to do so without logging in	SearchUser, BookedUser, Admin
NRF-005	When an admin goes to edit a DB, a backup is instantly created	Admin

## Use Case Diagram



## Use Case Documents

1)

<b>Use Case ID:</b>	UR-001
<b>Use Case Name:</b>	Book a hotel
<b>Description:</b>	User should be able to book a reservation
<b>Actors:</b>	SearchUser
<b>Pre Conditions:</b>	User has searched for a hotel that meets their expectations, User has enough money and correct card, User already has created an account with all their card information and has logged in
<b>Post Conditions:</b>	User has a reservation with a hotel, can see said reservation on their account
<b>Frequency:</b>	Extremely frequent

### Flow of Events:

Step #	Actor Action	System Response
1)	User chooses how many days they would like to book the hotel for	System displays the minimum and maximum amount of days one can book for
2)	User presses the “book now” button	System goes and verifies with the user’s bank the transaction, then updates DB, SearchUser becomes BookedUser

<b>Variations:</b>	User does not have enough money, User did not set an account with us, User has a card that we do not accept
--------------------	---

2)

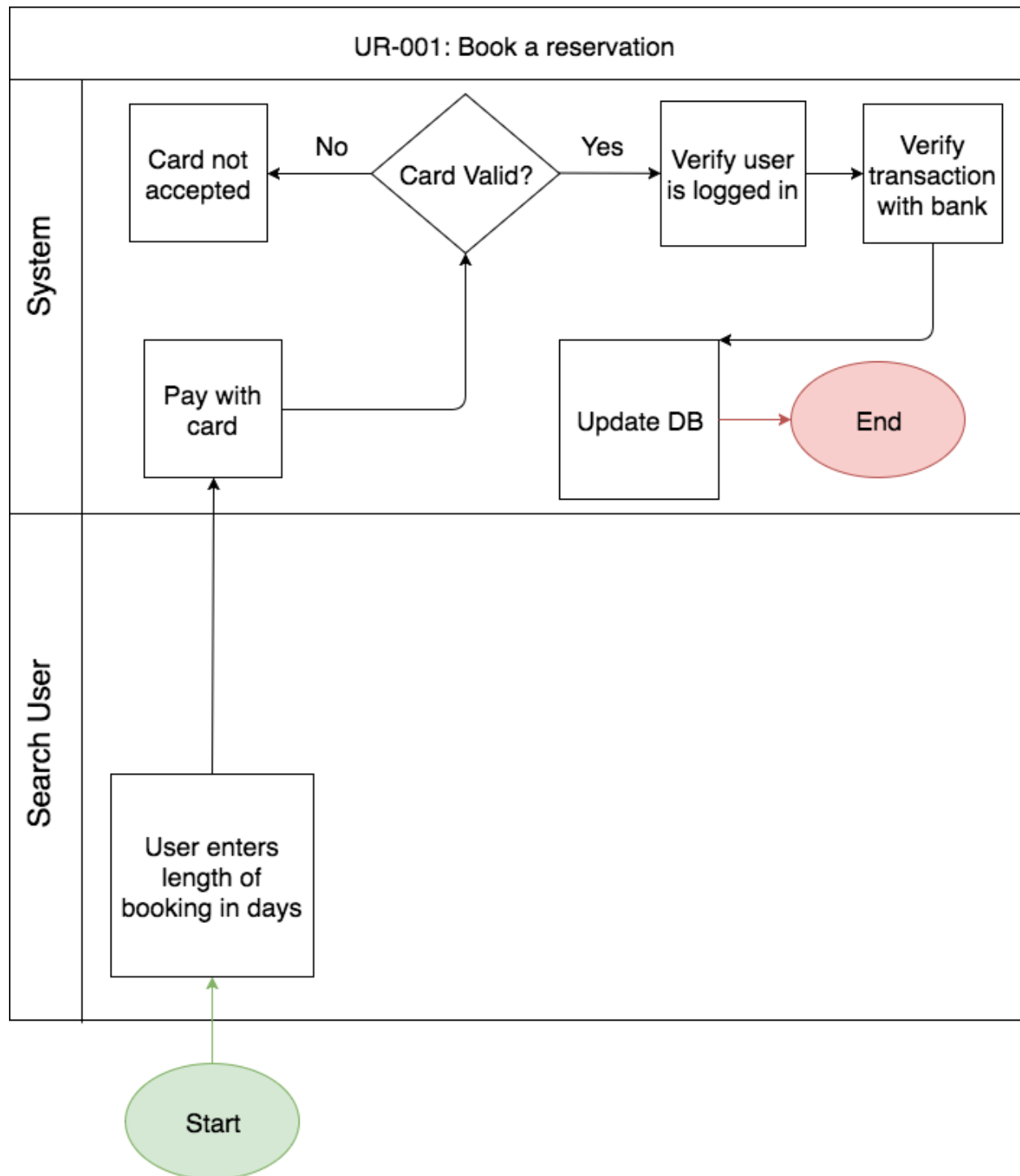
<b>Use Case ID:</b>	UR-008
<b>Use Case Name:</b>	Search for hotels
<b>Description:</b>	User should be able to search for hotels and sort by name, location, price range, or ratings
<b>Actors:</b>	SearchUser
<b>Pre Conditions:</b>	User does not have an account with us User wants to find a hotel within a price range of \$300-500 and hotels in New York City
<b>Post Conditions:</b>	User should have a list of hotels that match his search and sorting
<b>Frequency:</b>	Extremely Frequent

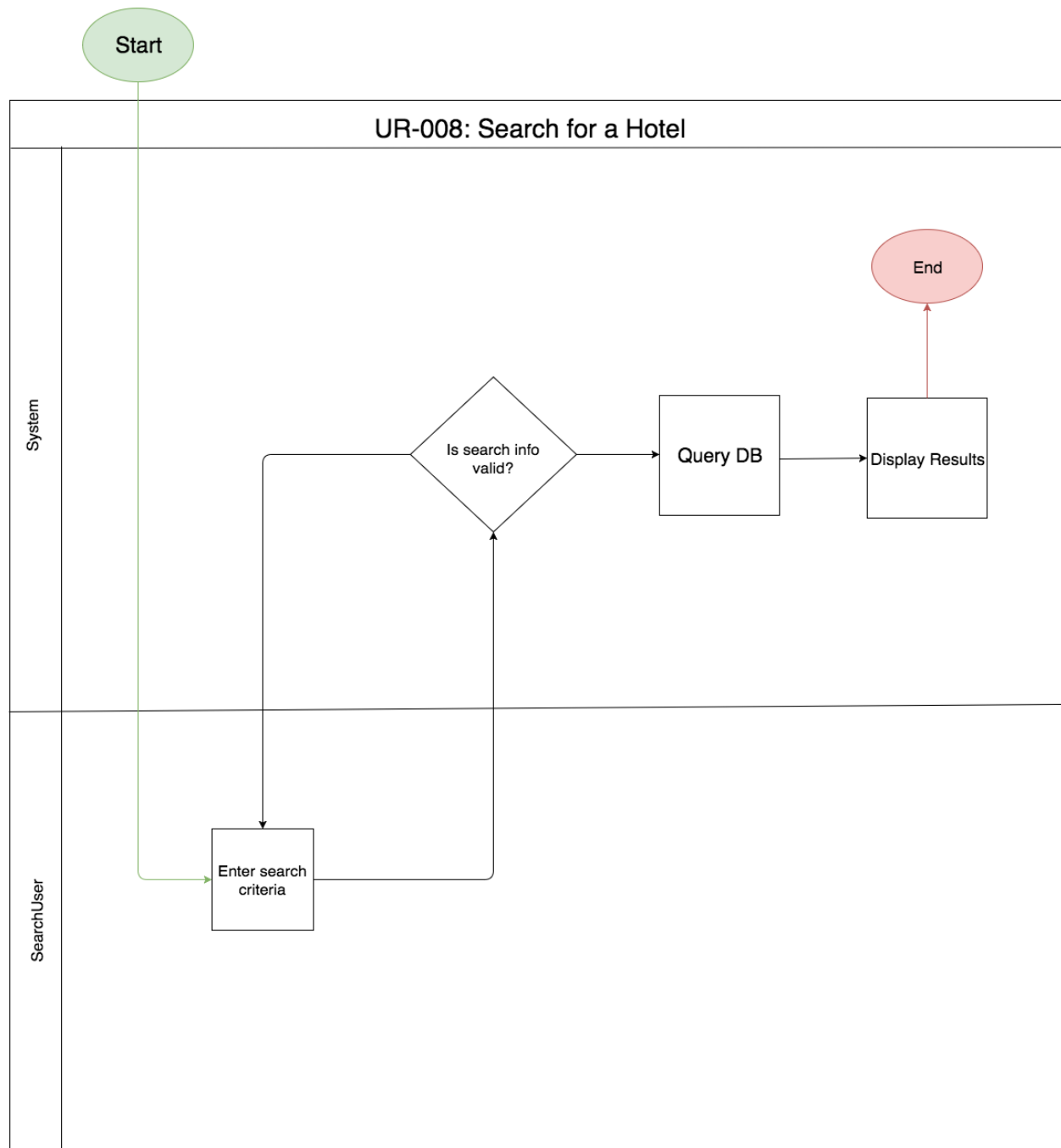
**Flow of Events:**

<b>Step #</b>	<b>Actor Action</b>	<b>System Response</b>
1)	User enters in the the price range of hotels they are looking for	System ask users to input information on what hotels they are looking for
2)	User enters in the locations of hotels they are looking for	System ask users to input information on what hotels they are looking for
3)	User presses "search" button	System creates query from the search criteria specified by the user, runs query on DB and returns a list of hotels that match

<b>Variations:</b>	User enters in a location that our query does not recognize
--------------------	---

## Activity Diagrams







## UI Mockups







# San Fransisco, California

Hotel "La Costa"

Amenities: Pool, Balcony, TV, Internet (Wi-Fi)

Rooms Available: 6

Earliest Check In Date: 11/15/2017

Check-In Date: 11/20/2017

Check-Out Date: 11/27/2017

Price Per Night: \$187

BOOK NOW



# San Fransisco, California

Hotel "La Costa"

Amenities: Pool, Balcony, TV, Internet (Wi-Fi)

Rooms Available: 6

Earliest Check In Date: 11/15/2017

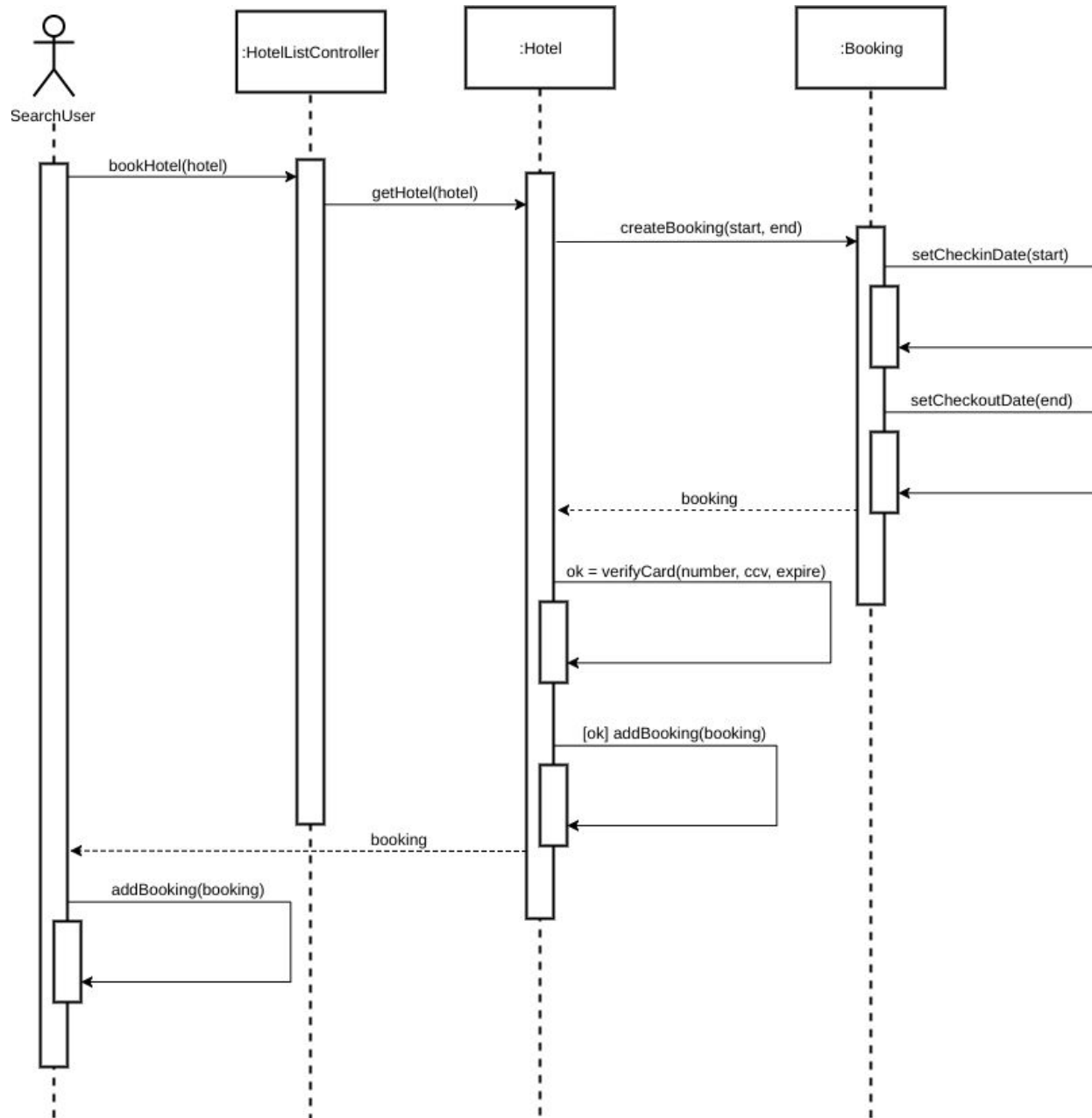
Check-In Date: 11/20/2017

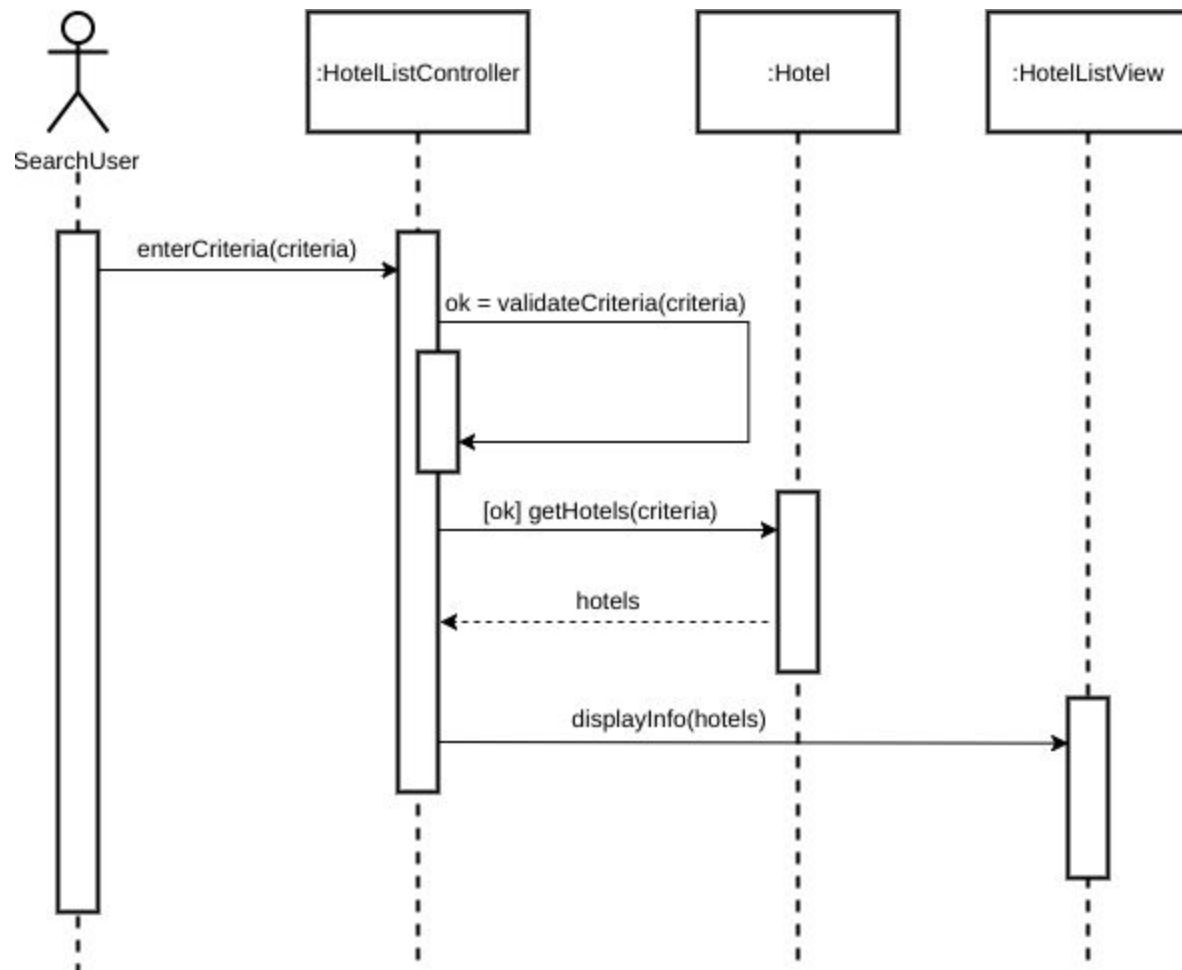
Check-Out Date: 11/27/2017

Price Per Night: \$187

CANCEL BOOKING

## Sequence Diagrams





## Class Diagram

