

Module 2 Capstone - National Park Campsite Reservation

Congratulations! You did such a great job on your previous application we want you to build our new campsite reservation application. We are tasking you to build a command line driven application that our National Park Service can use to book campsite reservations.

The requirements for your application are listed below:

1. As a user of the system, I need the ability to view a list of the available parks in the system, sorted alphabetically by name.
 - a. A park includes an id, name, location, established date, area, annual visitor count, and description.
2. As a user of the system, I need the ability to select a park that my customer is visiting and see a list of all campgrounds for that available park.
 - a. A campground includes an id, name, open month, closing month, and a daily fee.
3. As a user of the system, I need the ability to select a campground and search for date availability so that I can make a reservation.
 - a. A reservation search only requires the desired campground, a start date, and an end date.
 - b. A campsite is unavailable if any part of their preferred date range overlaps with an existing reservation.
 - c. If no campsites are available, indicate to the user that there are no available sites and ask them if they would like to enter in an alternate date range.
 - d. The TOP 5 available campsites should be displayed along with the cost for the total stay.
 - e. *BONUS*: If a date range is entered that occurs during the park off-season, then the user should not see any campsites available for reservation.
 - f. *BONUS*: Provide an advanced search functionality allowing users to indicate any requirements they have for maximum occupancy, requires wheelchair accessible site, an rv and its length if required, and if a utility hookup is necessary.

4. As a user of the system, once I find a campsite that is open during the time window I am looking for, I need the ability to book a reservation at a selected campsite.
 - a. A reservation requires a name to reserve under, a start date, and an end date.
 - b. A confirmation id is presented to the user once the reservation has been submitted.
5. BONUS: As a user of the system, I want the ability to select a park and search for campsite availability across the entire park so that I can make a reservation.
 - a. Up to 5 campsites for each campground (if applicable) should be displayed if they have availability along with the cost of the total stay.
 - b. The same rules apply as the campground search.
6. BONUS: As a user of the system, I would like the ability to see a list of all upcoming reservations within the next 30 days for a selected national park.

Sample Screens

View Parks Interface

Select a Park for Further Details

- 1) Acadia
- 2) Arches
- 3) Cuyahoga National Valley Park
- 4) ...
- Q) quit

Park Information Screen

Acadia National Park

Location: Maine
Established: 02/26/1919
Area: 47,389 sq km
Annual Visitors: 2,563,129

Covering most of Mount Desert Island and other coastal islands, Acadia features the tallest mountain on the Atlantic coast of the United States, granite peaks, ocean shoreline, woodlands, and lakes. There are freshwater, estuary, forest, and intertidal habitats.

Select a Command

- 1) View Campgrounds
- 2) Search for Reservation
- 3) Return to Previous Screen

Park Campgrounds

Acadia National Park Campgrounds

	Name	Open	Close	Daily Fee
#1	Blackwoods	January	December	\$35.00
#2	Schoodic Woods	May	October	\$30.00
#3	Seawall	May	September	\$30.00

Select a Command

- 1) Search for Available Reservation
- 2) Return to Previous Screen

Search for Campground Reservation

	Name	Open	Close	Daily Fee
#1	Blackwoods	January	December	\$35.00
#2	Schoodic Woods	May	October	\$30.00
#3	Seawall	May	September	\$30.00

Which campground (enter 0 to cancel)? __

What is the arrival date? __/__/____

What is the departure date? __/__/____

Results Matching Your Search Criteria

Site No.	Max Occup.	Accessible?	Max RV Length	Utility	Cost
1	4	No	N/A	N/A	\$XX
4	6	Yes	N/A	N/A	\$XX
13	12	Yes	20	Yes	\$XX

Which site should be reserved (enter 0 to cancel)? __

What name should the reservation be made under? __

The reservation has been made and the confirmation id is {Reservation_id}

BONUS: Search for Park-wide Reservation

What is the arrival date? __/__/____

What is the departure date? __/__/____

Results Matching Your Search Criteria

Campground	Site No.	Max Occup.	Accessible?	RV Len	Utility	Cost
Blackwoods	1	4	No	N/A	N/A	\$XX
Seawall	4	6	Yes	N/A	N/A	\$XX
Seawall	13	12	Yes	20	Yes	\$XX

Which site should be reserved (enter 0 to cancel)? __

What name should the reservation be made under? __

The reservation has been made and the confirmation id is {Reservation_id}