

MICHIGAN STATE

UNIVERSITY

Alpha Presentation Lounge Management System

The Capstone Experience
Team United Airlines Digital Technology

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*From Students...
...to Professionals*

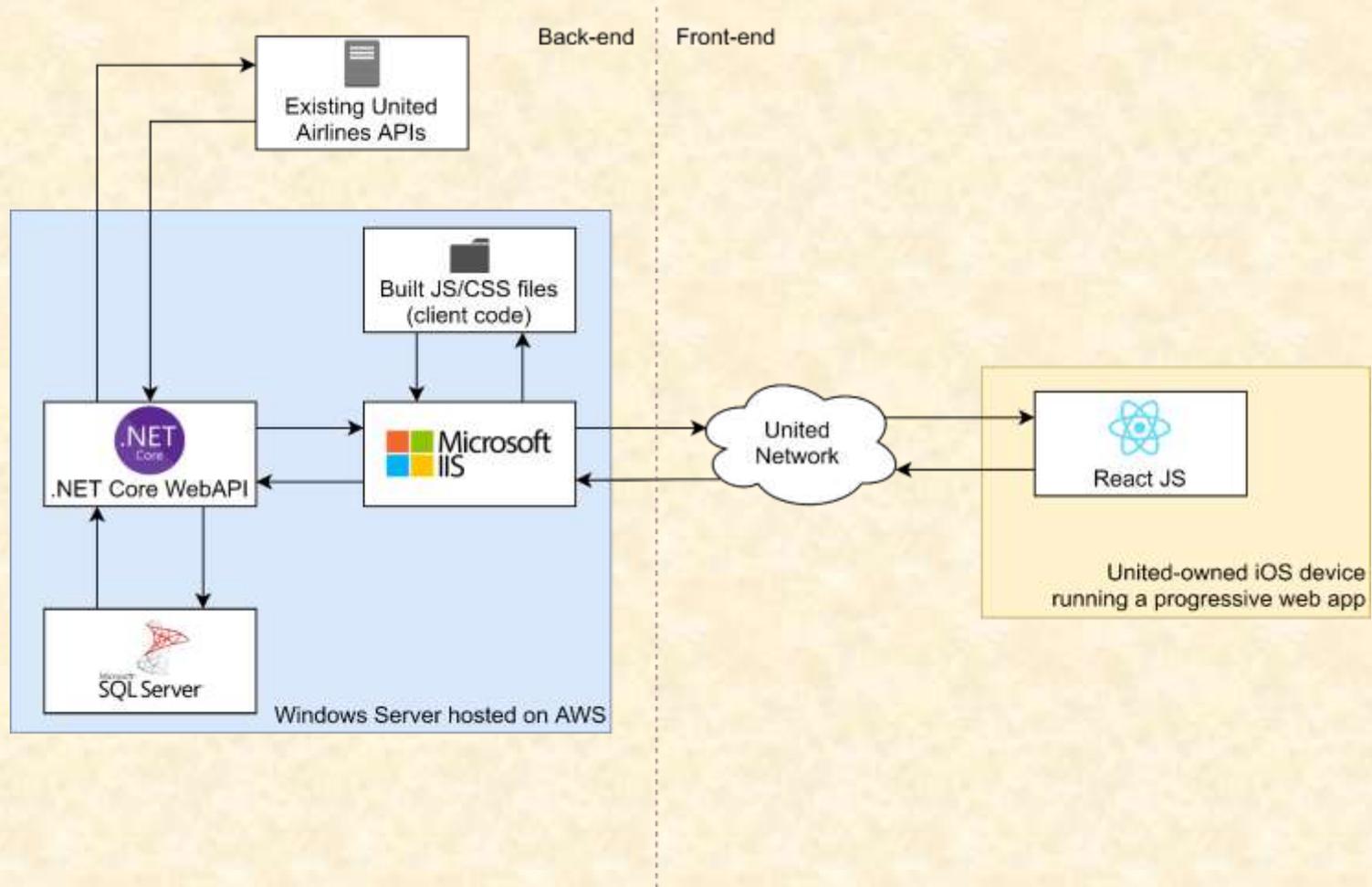
Department of Computer Science and Engineering
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Project Overview

- United Airlines provides lounges for customers
- Our system manages these lounges to provide customers with a better experience
- This is accomplished through the automation of administrative tasks
- This results in a better customer experience by allowing staff to focus on interacting with customers, giving the appearance of a higher staff to customer ratio



System Architecture



Home Screen

The screenshot displays the United Airlines lounge management home screen for user Jeff Johnson. The interface is dark-themed with white text and icons. On the left, a navigation sidebar includes the United logo, user profile (Jeff Johnson, U600208), and menu items for COMMUNITY, CUSTOMER, and AMENITY. The main content area is titled 'HELLO JEFF' and contains three sections: ANNOUNCEMENTS, NOTIFICATIONS, and MY TASK. The ANNOUNCEMENTS section includes a welcome message and instructions. The NOTIFICATIONS section states there are no notifications. The MY TASK section lists a task to replenish supplies. On the right, a calendar for November 2020 shows the current date as Friday, Nov 13th. Below the calendar is a horizontal bar chart titled 'Amenity Usage' showing usage for Shower (10/30), à la carte (24/30), and Daybed (6/30).

UNITED

HELLO JEFF

ANNOUNCEMENTS

Welcome!

Welcome to the UAL lounge management system. This is your 'My Home' page. To access more operation, select a widget on the left of the screen.

NOTIFICATIONS

There are no notifications to display.

MY TASK

1. Replenish shower supplies and daybed supplies.

2020
Fri, Nov 13th

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	Nov 13	14
15	16	17	18	19	20	21

Amenity Usage

Amenity	Usage
Shower	10/30
à la carte	24/30
Daybed	6/30



Wait List

UNITED

Estimated Wait Time: 25 min

Jeff Johnson
U600208

COMMUNITY

CUSTOMER

AMENITY

Waiting List Management

Add New Customer

Show 10 entries Search:

CUSTOMER	FLIGHTCARRIER	FLIGHTNUMBER	OPERATION
Patel Deven	UA	719	Notify Remove
Spiwak Jon	UA	092	Notify Remove
Thomas Justin	UA	802	Notify Remove
Tiger Woods	UA	0192	Notify Remove
Zhu Katrina	UA	039	Notify Remove

Showing 1 to 5 of 5 entries Previous 1 Next



Adding New Customers

The screenshot shows a dark-themed interface with the United logo at the top left. A white modal window titled "Add New Customer" is centered. It contains a search bar labeled "Search for Customer" with a magnifying glass icon. Below the search bar are four input fields: "Last Name", "First Name", "Phone Number", and "Flight Number". Underneath these is a section titled "Reservations" with three checkboxes: "Shower", "à la carte", and "DayBed". At the bottom of the modal are two buttons: "Save" and "Cancel".

UNITED

Add New Customer

Search for Customer

Last Name First Name

Phone Flight

Phone Number Flight Number

Reservations

- Shower
- à la carte
- DayBed

Save Cancel



API Documentation

Amenity	
DELETE	/Amenity/{id} Delete a single amenity
POST	/Amenity/{id} Edit a single amenity
POST	/Amenity Add a single amenity
POST	/Amenity/{id}/ServiceStatus Update the service status of an amenity
Customer	
GET	/Customer/TestGetInfo/{id}
POST	/Customer/{id} Update a customer. Properties not passed in or set to null will not be changed
POST	/Customer/OnEnterLounge/{loungeId} Indicate a customer entering a lounge
Lounge	
GET	/Lounge Fetch a list of all lounges
GET	/Lounge/{id} Get a specific lounge
GET	/Lounge/{id}/AmenityCategories Get all amenities in use at a given lounge as well as aggregated status data for each
GET	/Lounge/{loungeId}/Amenities/{categoryId} Fetch all individual amenities and their state for a given lounge and category
POST	/Lounge/SeedDB For development purposes only, seed the database with test data. This will only work if the database does not already have data.
Waitlist	
GET	/Waitlist/{loungeId}/ForCategory/{amenityCategoryId} Get the current list of customers waiting for a given amenity category in a lounge
DELETE	/Waitlist/{entryId} Remove a customer from a waitlist, given their entry ID
POST	/Waitlist/{entryId}/Notify Notify a customer on the waitlist
POST	/Waitlist/AddCustomerManually Add a customer to the waitlist who is not already in the database



What's left to do?

- Tracking amenity turnover time
- Tracking customer use and extracting actionable data
- Refine user interface



Questions?

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