



Beta Presentation

Training Scheduling and Optimization System III

The Capstone Experience

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

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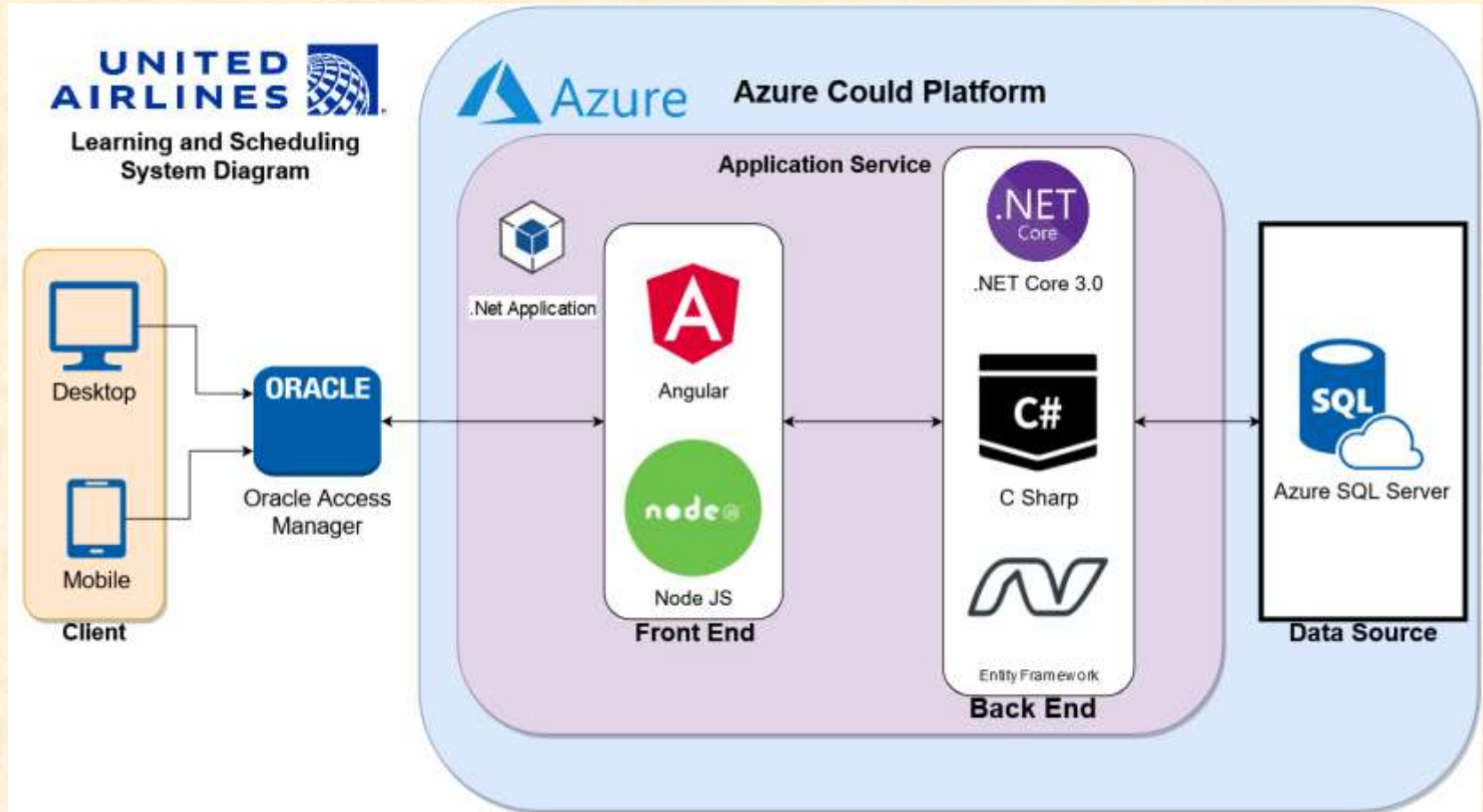
Spring 20

Project Overview

- Improved upon the Learning Scheduling System from the 2 previous capstone teams
- Reimagined scheduling workflow with notification and calendar upgrades
- Build in future scalability for data with administrative pages
- Improve visibility into instructor time usage with reports



System Architecture



Admin Pages

The screenshot displays the 'Learning Scheduling System' admin interface. The browser address bar shows 'localhost:5001/admin/locations'. The page features a dark blue sidebar with navigation links: HOME, CALENDARS, COURSE SCHEDULE, SCHEDULE PLANNER, ADD A CLASS, SCHEDULE OPTIMIZER, CONFLICT OVERVIEW, TRAINING REQUESTS, BOOK CLASSROOM, COURSE CATALOG, EXCEPTIONS, INSTRUCTOR QUALIFICATIONS, ATTENDANCE, LOCATIONS, ADMIN, and REPORTS. The main content area has a top navigation bar with 'Users', 'Locations' (selected), 'Rooms', 'Courses', 'Booking', 'Codes', and 'Status'. Below this is a 'Location Search' input field and a 'Show Inactives' toggle. The 'Locations' table is the central focus, with an 'Export' button on the left and an 'Add Location' button on the right. The table has four columns: 'Action' (with edit and delete icons), 'Code', 'Point', and 'Active'. It lists ten locations: EWR, LCH, LAX, JFK, ICT, IAH, IAD, HOU, HNL, GUM, and BDL. A tooltip for the LCH row indicates it was updated by 'McDaniel' on 'Fri Apr 03 2020 00:22:51 GMT-0400 (Eastern Daylight Time)'. The user 'McDaniel, Lynda' is logged in, as shown in the top right corner.

Action	Code	Point	Active
	EWR	True	Yes
	LCH	Updated by McDaniel on Fri Apr 03 2020 00:22:51 GMT-0400 (Eastern Daylight Time)	Yes
	LAX	False	Yes
	JFK	False	Yes
	ICT	False	Yes
	IAH	False	Yes
	IAD	False	Yes
	HOU	False	Yes
	HNL	False	Yes
	GUM	False	Yes
	BDL	False	Yes



Admin Pages Continued

The screenshot displays the 'Learning Scheduling System' interface. A modal window titled 'Add Location' is open, allowing the user to 'Add a New Location'. The form includes the following fields:

- Location Code:** A text input field containing 'DET'.
- Point:** A dropdown menu currently set to 'No'.
- Latitude:** A text input field containing '42.2162'.
- Longitude:** A text input field containing '-83.3554'.

At the bottom of the modal are 'Cancel' and 'Add' buttons. In the background, a table of existing locations is visible, with columns for Location Code, Point, Latitude, and Longitude.

Location Code	Point	Latitude	Longitude
UAD	False		Yes
WOU	False		Yes
HSL	False		Yes
GUM	False		Yes
BOL	False		Yes



Email Notifications

Learning Scheduling System x +

localhost:5001/schedule

UNITED

HOME

CALENDARS

COURSE SCHEDULE

SCHEDULE PLANNER

ADD A CLASS

SCHEDULE OPTIMIZER

CONFLICT OVERVIEW

TRAINING REQUESTS

BOOK CLASSROOM

COURSE CATALOG

EXCEPTIONS

INSTRUCTOR QUALIFICATIONS

Schedule

Code From

Search

Action

Send email now?

Would you like to send an email now, in order to notify others that you have made this change?

Emails to be notified:

techopstraining@united.com

Subject:

Notification of a Class Added to the Mx Training Schedule -- T!

Good Afternoon, Please be advised the following class has been added to the schedule: • TS379 | IAD(Local) | 4/27/20 - 4/28/20 | 07:00:00 - 15:00:00 | Instructor(s): Michael Murphy All systems have been updated. Thanks, Lynda McDaniel

Additional Notes to add onto Email:

Have a good day

Cancel Send

Export Planner

Time	Location	Room	Point	S
10	IAD	Local	DEN	O
10	MCO	S Hangar - S	DEN	O
10	MCO	N Hangar - N	NHC	D
10	MCO	N Hangar - N	EWR	F



Confirm Classroom Request

The screenshot displays the 'Learning Scheduling System' web application. The browser address bar shows 'https://localhost:5001/classroom-requests'. The application header includes the 'UNITED' logo, the title 'Learning Scheduling System', and a user profile for 'Mcdaniel, Lynda'. A dark blue sidebar on the left contains a navigation menu with the following items: HOME, CALENDARS, COURSE SCHEDULE, SCHEDULE PLANNER, ADD A CLASS, SCHEDULE OPTIMIZER, CONFLICT OVERVIEW, TRAINING REQUESTS, BOOK CLASSROOM, COURSE CATALOG, EXCEPTIONS, INSTRUCTOR QUALIFICATIONS, ATTENDANCE, ADMIN, REPORTS, and Scheduler. The main content area is titled 'Classroom Schedule' and features a 'History' tab. Below the tab is a table with the following columns: Action, Name, Location, Room #, People, Phone, Email, Start Date, End Date, and Comment. The table contains three rows of data:

Action	Name	Location	Room #	People	Phone	Email	Start Date	End Date	Comment
Approved	Harold Dunlap	EWR	213	5	2138421791	Dunlap90@yahoo.com	04/02/2020, 10:16	04/03/2020, 10:16	
	Takisha Jone	EWR	217	10	7083199913	takisha22@gmail.com	04/02/2020, 10:26	04/03/2020, 10:26	
	Priscilla Navarro	ORD	9	55	6199963127	navarro1@gmail.com	04/03/2020, 19:01	04/04/2020, 19:01	



Location Calendar

The screenshot displays the 'Learning Scheduling System' interface. On the left is a dark blue sidebar with the 'UNITED' logo and a 'HOME' button. Below this is a 'CALENDARS' section with links: COURSE SCHEDULE, SCHEDULE PLANNER, ADD A CLASS, SCHEDULE OPTIMIZER, CONFLICT OVERVIEW, TRAINING REQUESTS, BOOK CLASSROOM, COURSE CATALOG, EXCEPTIONS, INSTRUCTOR QUALIFICATIONS, ATTENDANCE, ADMIN, and REPORTS. At the bottom of the sidebar is a 'Scheduler' button.

The main content area shows a calendar for April 2020. The calendar grid has columns for days of the week (Su to Sa) and rows for dates. A legend at the top indicates: Published (purple), Planned (pink), Holiday (yellow), Published Request (orange), and Pending Request (teal). Navigation buttons for 'Previous', 'Today', and 'Next' are at the top right.

On the right side, there is a list of requests. A tooltip is visible over the 'Published Request' (orange) for 'Harold Dunlap' on April 2nd. The tooltip contains the following information:

- Requester: Harold Dunlap
- Email: Dunlap90@yahoo.com
- Attendance: 5
- Start Date: 4/2/2020 (Thursday)
- End Date: 4/3/2020 (Friday)
- From 10:16 to 10:16

The request list includes various locations and times, such as 'DEN: DIA Hangar: 1041-B', 'DEN: FTC: A001', 'DEN: FTC: A005', 'DEN: FTC: A011', 'DEN: Hangar Test Update: A124', 'DEN: Local', 'EWR: Hangar 100: 211', 'EWR: Hangar 100: 212', 'EWR: Hangar 100: 213', 'EWR: Hangar 100: 217', 'EWR: Hangar 55: Fr-2', 'EWR: Hangar 55: Fr-3', 'GUM: AO General Office: AT-3', 'HNL: Hangar: A', 'HOU: Building 2: 1', 'HOU: Building 2: 4', 'IAD: Hangar: 217', 'IAD: Local', and 'IAD: Terminal: Gate-C'.



Editing Classroom Request

The screenshot displays the 'Learning Scheduling System' web application. A modal form titled 'Classroom Request' is open, allowing for the editing of a request. The background shows a sidebar with navigation options and a main area with a 'History' table and a 'Schedule' table.

Classroom Request Modal Form:

- Requester: Priscilla Navarro
- Email: navarro1@gmail.com
- phone: 6199963127
- Location: ORD
- Attendance: 55
- Classroom: Current room: 9
- Date: 04/03/2020 19:01 ~ 04/04/2020 19:01
- Buttons: Update, Cancel

History Table:

Action	Name	Location
Approved	Harold Dunlap	EW
	Takisha Jone	EW
	Priscilla Navarro	ORD

Schedule Table:

Email	Start Date	End Date	Comment
90@yahoo.com	04/02/2020, 10:16	04/03/2020, 10:16	
22@gmail.com	04/02/2020, 10:26	04/03/2020, 10:26	
o1@gmail.com	04/03/2020, 19:01	04/04/2020, 19:01	



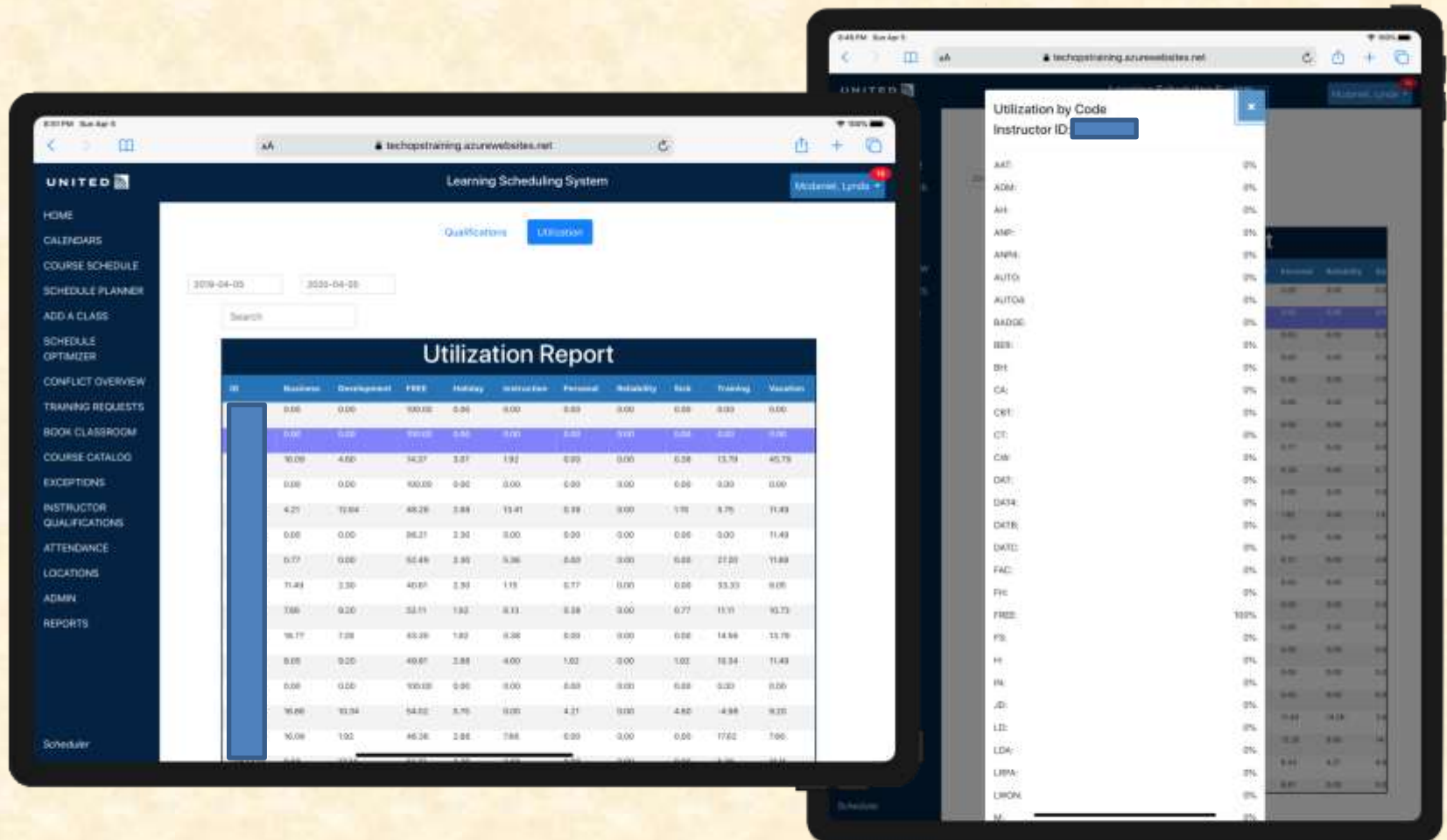
Qualifications Report

The screenshot shows a web application interface for the United Learning Scheduling System. The top navigation bar includes the United logo, the system name, and a user profile for 'Modaniel, Lynda'. A sidebar on the left contains a menu with options like HOME, CALENDARS, COURSE SCHEDULE, SCHEDULE PLANNER, ADD A CLASS, SCHEDULE OPTIMIZER, CONFLICT OVERVIEW, TRAINING REQUESTS, BOOK CLASSROOM, COURSE CATALOG, EXCEPTIONS, INSTRUCTOR QUALIFICATIONS, ATTENDANCE, LOCATIONS, ADMIN, and REPORTS. The main content area has tabs for 'Qualifications' and 'Utilization'. Below the tabs, a status bar indicates 'Qualification is Up to Date' with a green indicator, '30 Days Until Qualification Needs Renewal' with a yellow indicator, and 'Qualification Needs Renewal' with a red indicator. A search box labeled 'Taxi/engine' is present. The 'Qualifications Report' table lists instructors, course codes, course titles, qualifications, and the date last taught.

Instructor	Course Code	Course Title	Qualification	Date Last Taught
Adkins, Robert	T620	Taxi/Engine Run Student A318/A320	Teach All	2/26/2016
Baez, Alberto	T5376	Taxi/Engine Run Student B737-700/800/900	Teach All	1/30/2017
Baez, Alberto	T677	Taxi/Engine Run Student B777-200	Teach All	2/28/2017
Baez, Alberto	T537	Taxi/Engine Run Student B737-700/800/900/AAK	Teach All	2/25/2016
Barclay, Eddy	T677	Taxi/Engine Run Student B777-200	Teach All	12/14/2013
Bottazzi, Gianni	T620	Taxi/Engine Run Student A318/A320	Teach All	3/18/2013
Bottazzi, Gianni	T537	Taxi/Engine Run Student B737-700/800/900/AAK	Teach All	7/20/2016
Bottazzi, Gianni	T5379	Taxi/Engine Run Student B737-700/800/900	Teach All	1/30/2017
Carbone, Michael	T620	Taxi/Engine Run Student A318/A320	Teach All	12/2/2016
Chui, Martin	T620	Taxi/Engine Run Student A318/A320	Teach All	2/2/2016
Eigl, John	T6379	Taxi/Engine Run Student B737-700/800/900	Teach All	12/4/2017
Eigl, John	T620	Taxi/Engine Run Student A318/A320	Teach All	2/19/2016



Utilization Report



What's left to do?

- Link email notifications to emails in database
- Self-contained application publishing issue
- Additional OAM Field Testing
- FAQ Page Implementation
- Optimizer Testing
- Bug Resolution



Questions?

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