MICHIGAN STATE UNIVERSITY

Beta Presentation

Training Scheduling and Optimization System

The Capstone Experience

Team United Airlines

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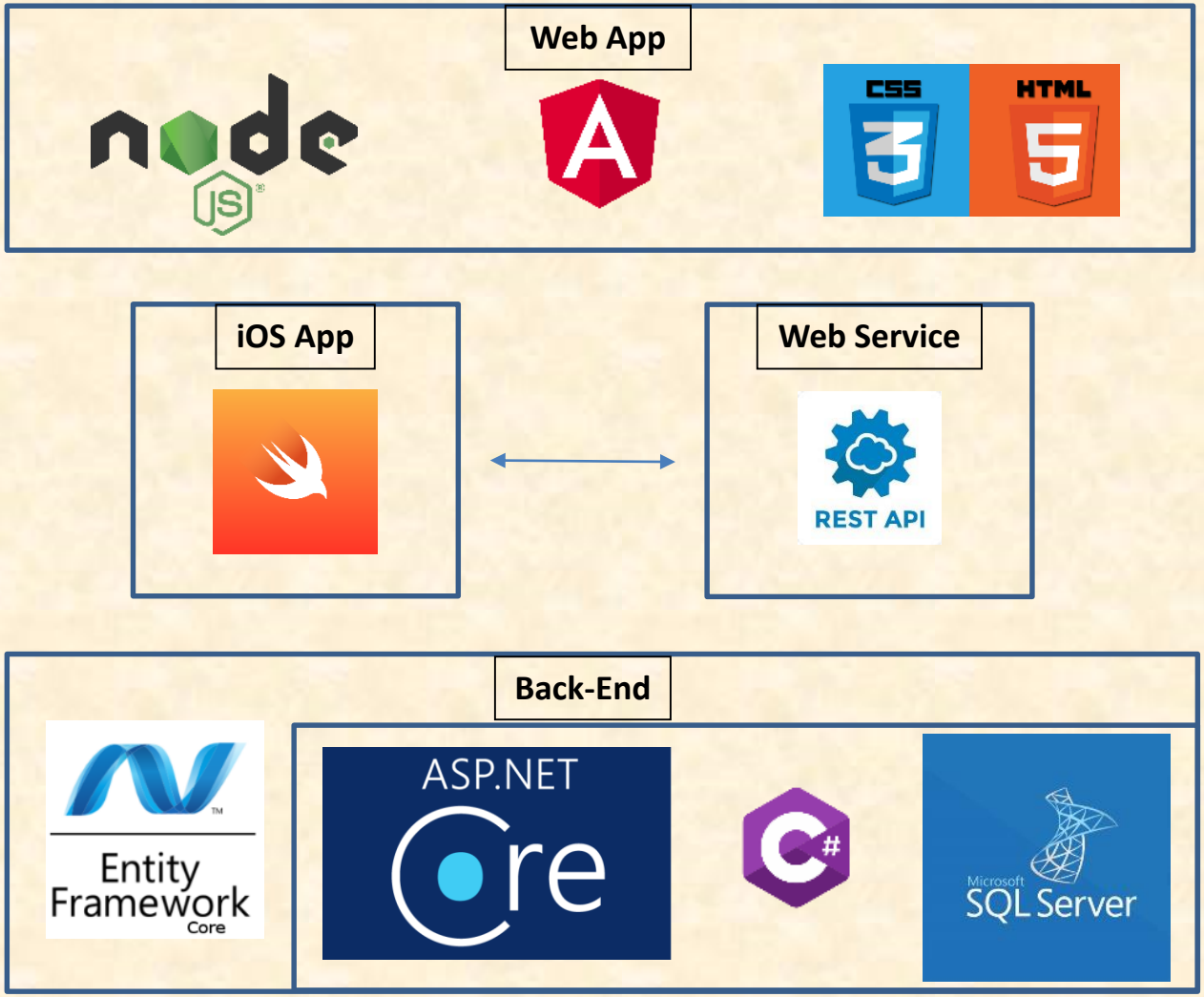
From Students…
…to Professionals

Department of Computer Science and Engineering
Michigan State University
Spring 2019

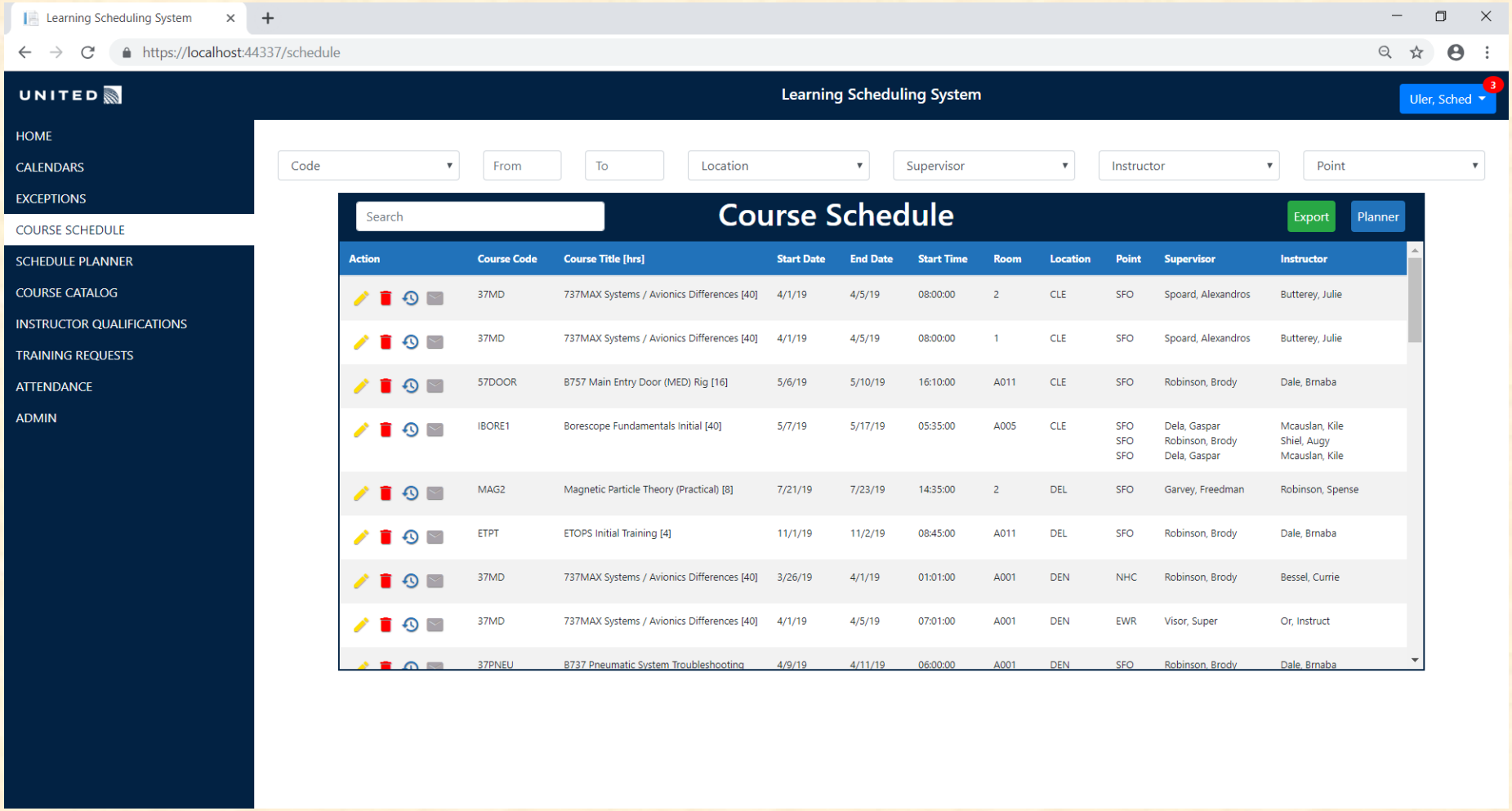
Project Overview

- Course scheduling system for maintenance training
- Instructor time tracking
- Rosters and attendance tracking
- Optimizer that suggests a course based on inputted attributes

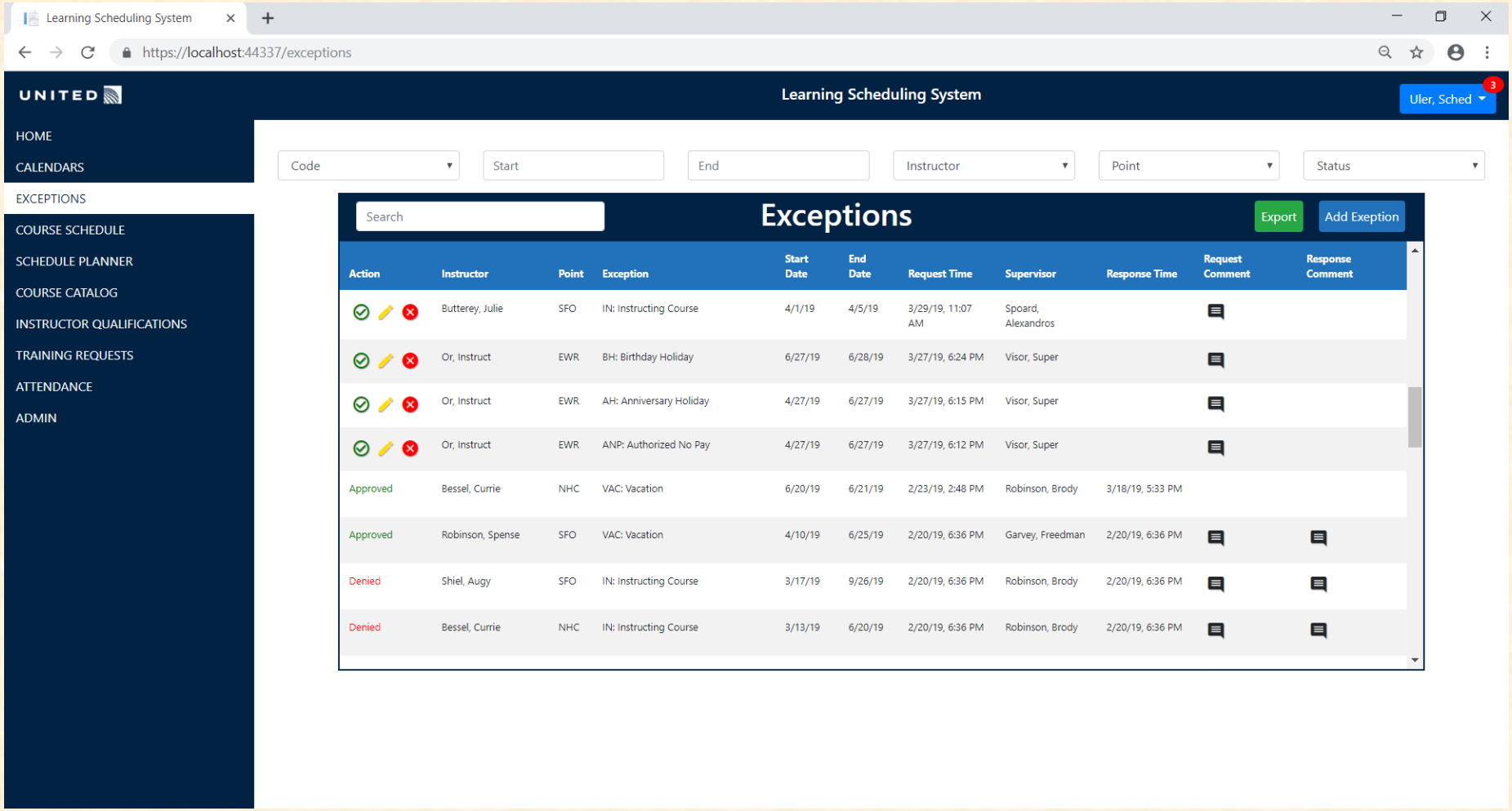
System Architecture



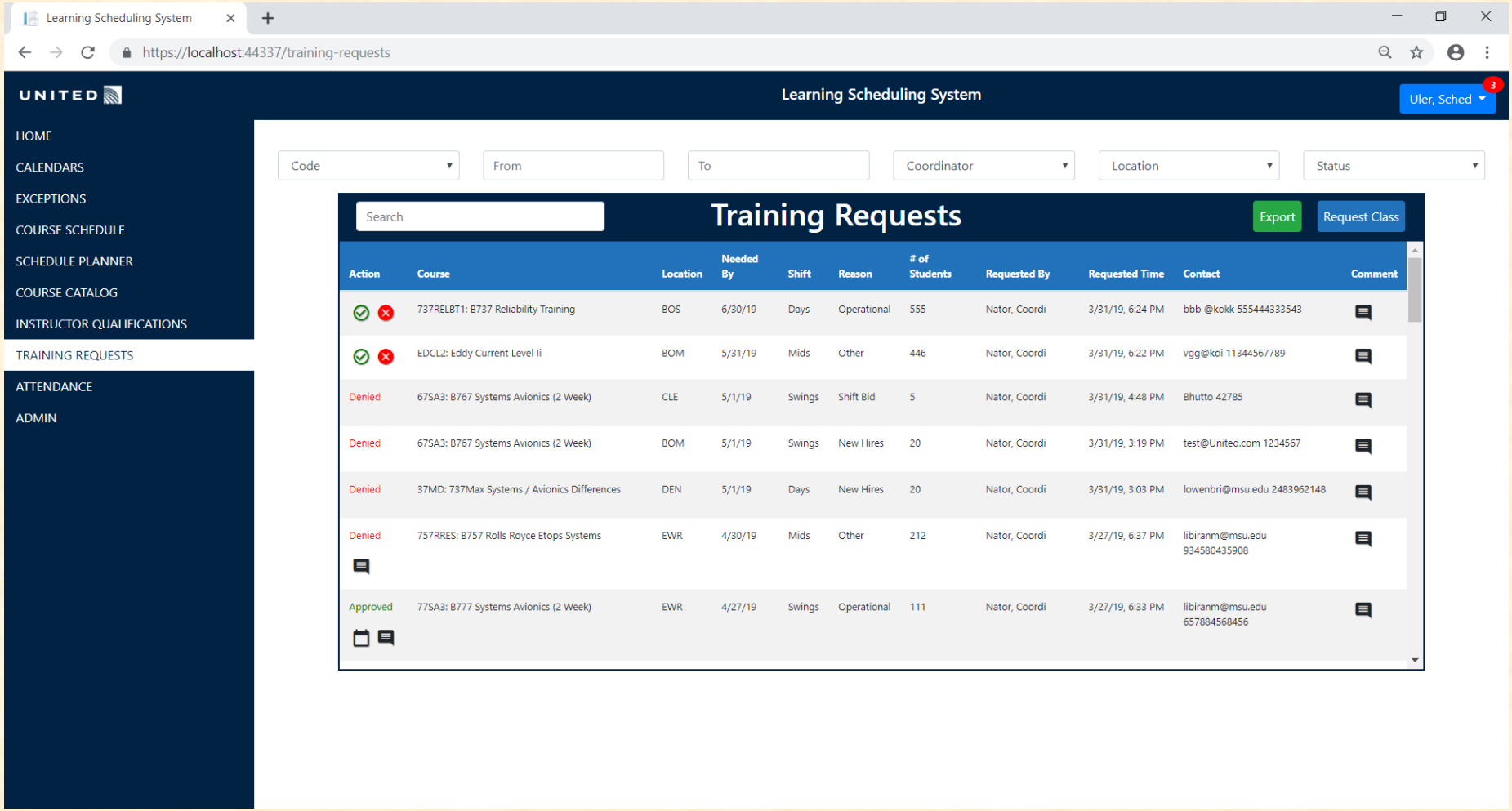
Course Schedule



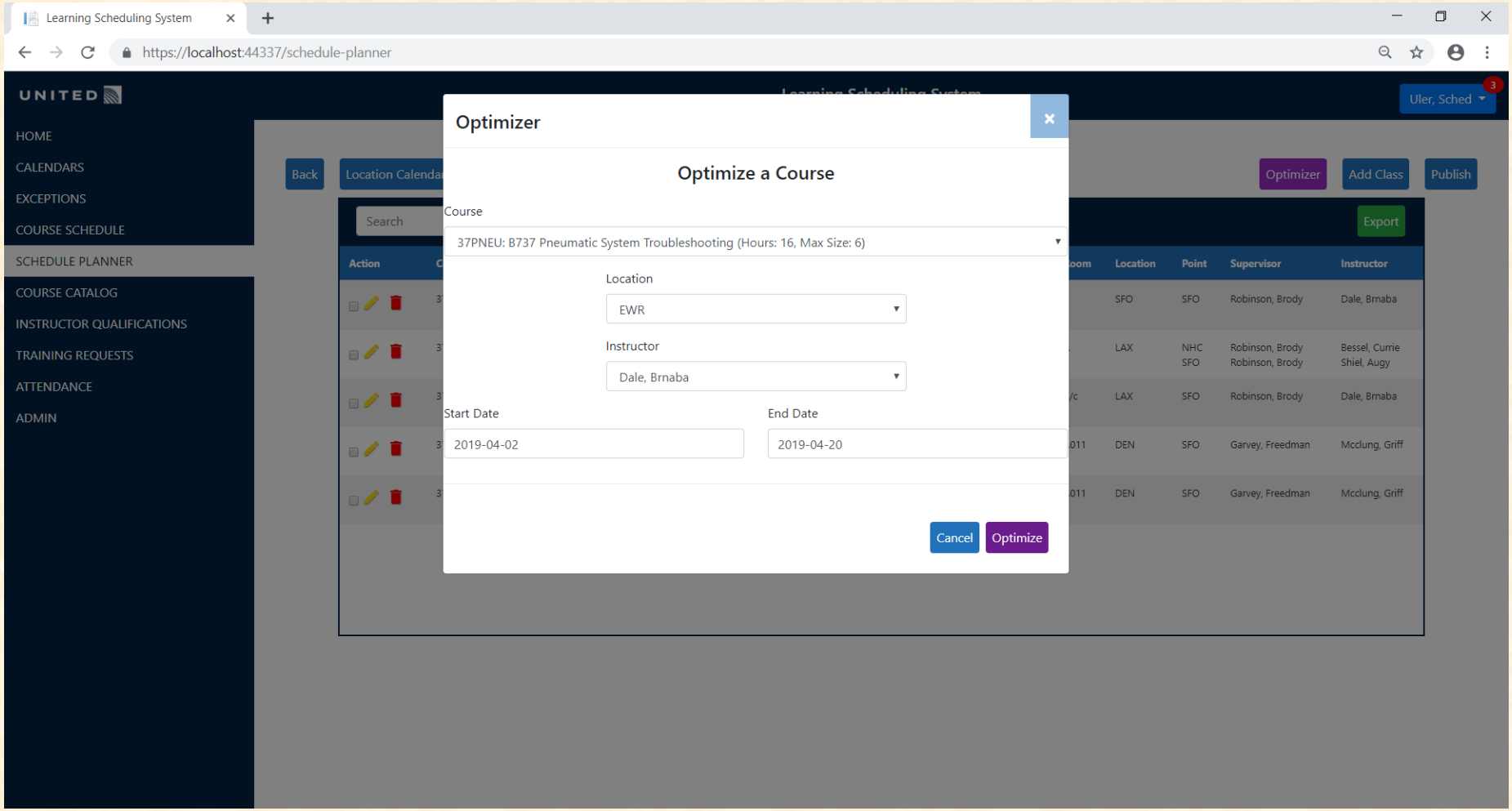
Exceptions


Learning Scheduling System
https://localhost:44337/exceptions
UNITED
Learning Scheduling System
Uler, Sched
3
HOME
CALENDARS
EXCEPTIONS
COURSE SCHEDULE
SCHEDULE PLANNER
COURSE CATALOG
INSTRUCTOR QUALIFICATIONS
TRAINING REQUESTS
ATTENDANCE
ADMIN
Code
Start
End
Instructor
Point
Status
Search
Exceptions
Export
Add Exeption
Action
Instructor
Point
Exception
Start Date
End Date
Request Time
Supervisor
Response Time
Request Comment
Response Comment
Butterey, Julie SFO IN: Instructing Course 4/1/19 4/5/19 3/29/19, 11:07 AM Spoard, Alexandros
Or, Instruct EWR BH: Birthday Holiday 6/27/19 6/28/19 3/27/19, 6:24 PM Visor, Super
Or, Instruct EWR AH: Anniversary Holiday 4/27/19 6/27/19 3/27/19, 6:15 PM Visor, Super
Or, Instruct EWR ANP: Authorized No Pay 4/27/19 6/27/19 3/27/19, 6:12 PM Visor, Super
Approved Bessel, Currie NHC VAC: Vacation 6/20/19 6/21/19 2/23/19, 2:48 PM Robinson, Brody 3/18/19, 5:33 PM
Approved Robinson, Spense SFO VAC: Vacation 4/10/19 6/25/19 2/20/19, 6:36 PM Garvey, Freedman 2/20/19, 6:36 PM
Denied Shiel, Augy SFO IN: Instructing Course 3/17/19 9/26/19 2/20/19, 6:36 PM Robinson, Brody 2/20/19, 6:36 PM
Denied Bessel, Currie NHC IN: Instructing Course 3/13/19 6/20/19 2/20/19, 6:36 PM Robinson, Brody 2/20/19, 6:36 PM

Training Requests



Optimizer


Learning Scheduling System
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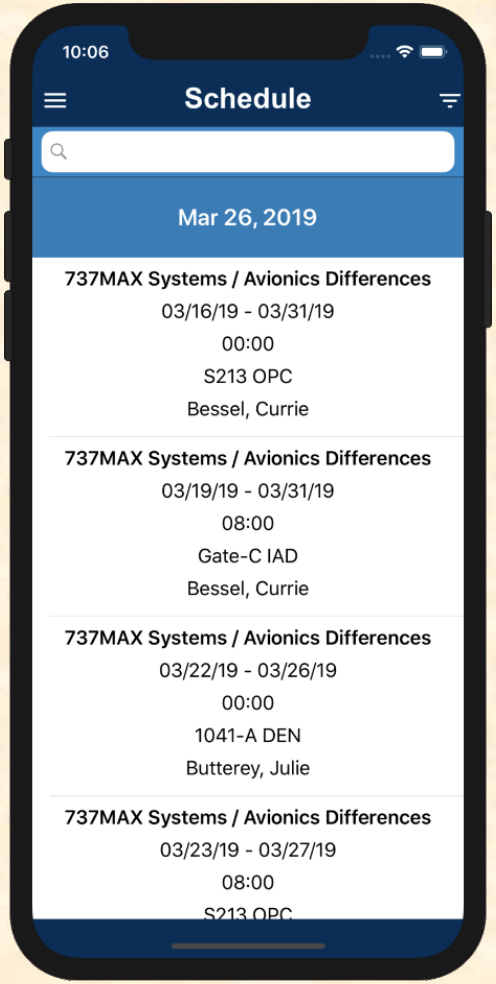
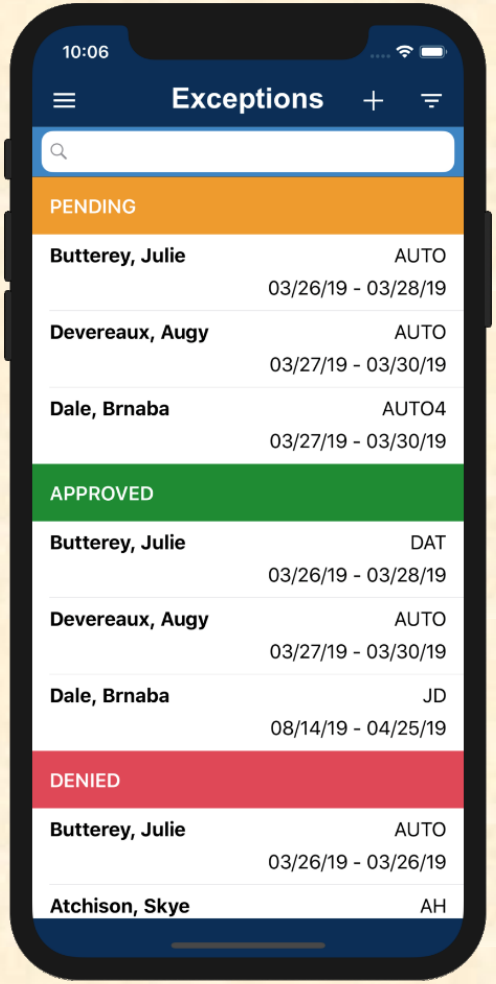
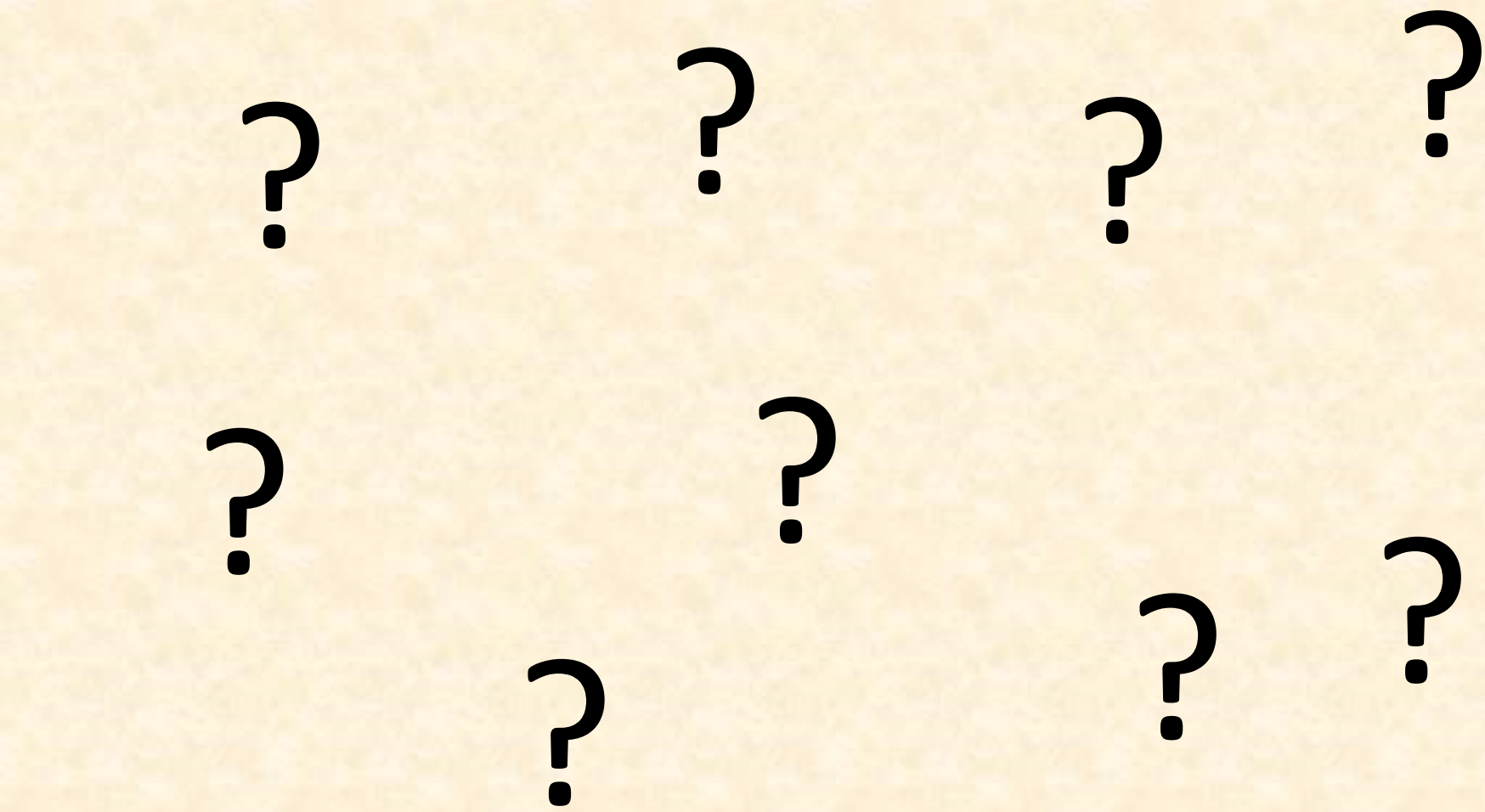
UNITED
HOME
CALENDARS
EXCEPTIONS
COURSE SCHEDULE
SCHEDULE PLANNER
COURSE CATALOG
INSTRUCTOR QUALIFICATIONS
TRAINING REQUESTS
ATTENDANCE
ADMIN
Uler, Sched
Back
Location Calenda
Optimizer
Add Class
Publish
Search
Export
Action
Location
Point
Supervisor
Instructor
Optimizer
Optimize a Course
Course
37PNEU: B737 Pneumatic System Troubleshooting (Hours: 16, Max Size: 6)
Location
EWR
Instructor
Dale, Brnaba
Start Date
2019-04-02
End Date
2019-04-20
Cancel
Optimize

iOS Application





What's left to do?

- UI enhancements
- Performance enhancements
- Bug fixes and stability
- Form feedback and user interaction

Questions?