

MICHIGAN STATE

UNIVERSITY

Alpha Presentation

Resident Physician Shift Tracking

The Capstone Experience

Team Spectrum Health

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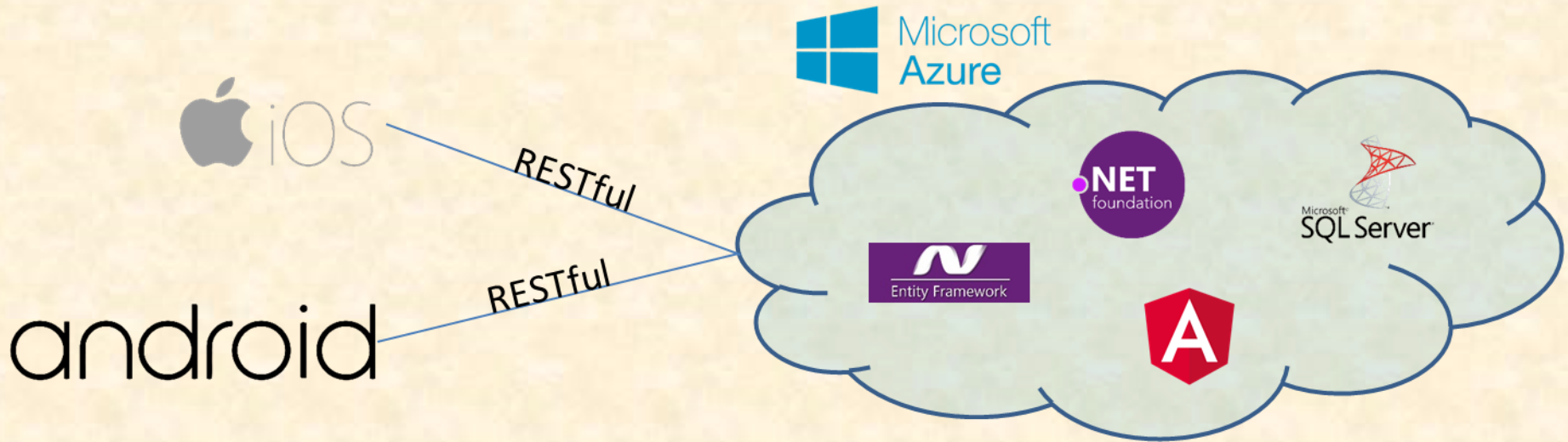
*From Students...
...to Professionals*

Project Overview

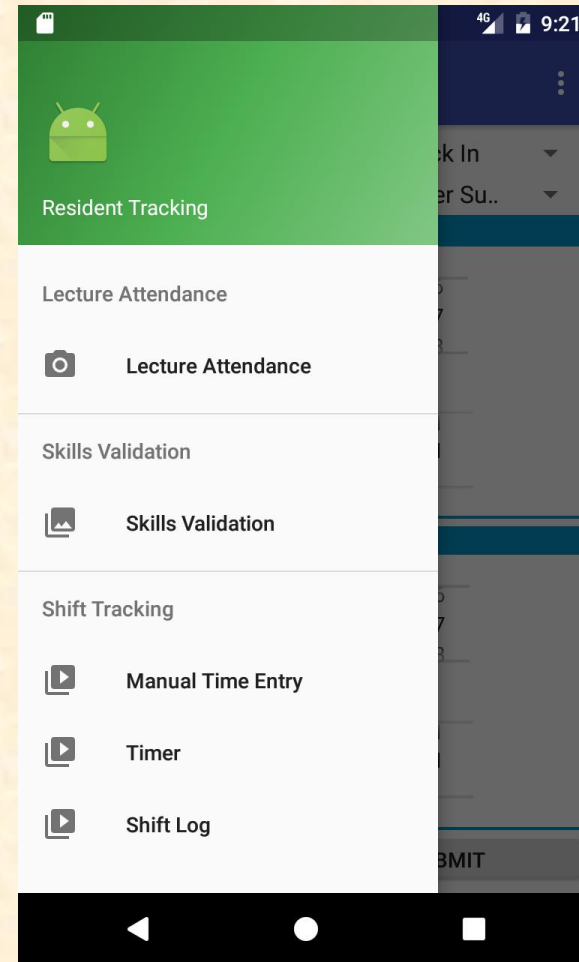
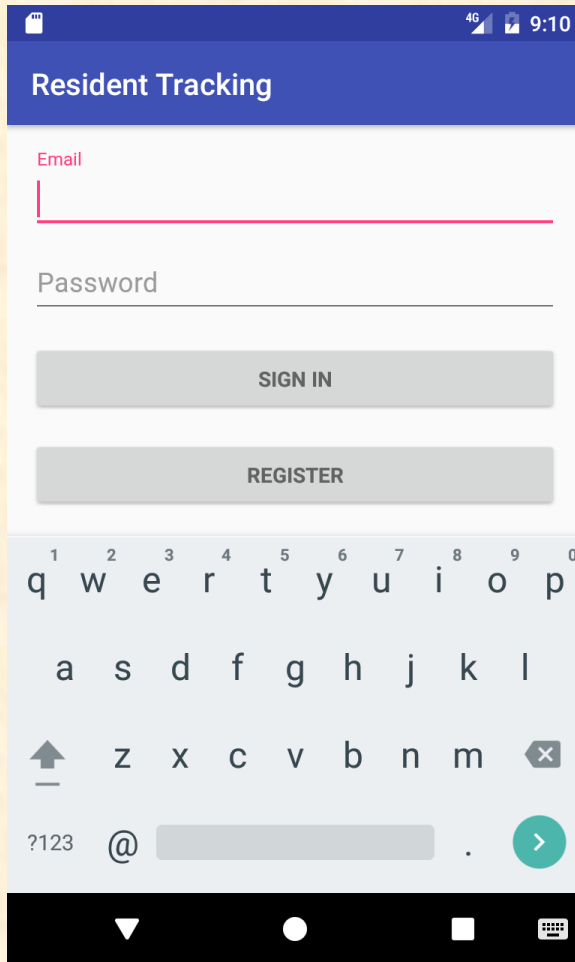
- Android and iOS app for residents to report and track their shift times
- Admin web portal for Resident Coordinator to view the residents' shift times and export the data to a CSV file
- Push notifications on the app to alert the resident when federal time restrictions are approaching



System Architecture



Android: Login and Menu



Android: Shift Tracking Features

4G 9:29

☰ Timer ☰

Start 09:27 PM

Duration 00:08

Assignment Definition Daily Check In ▾

Training Location Grand River Su.. ▾

STOP

Restrictions

30 min break after **20 min**

Shift must end after 10 hours

RESET SUBMIT

4G 9:21

☰ Manual Time Entry ☰

Assignment Definition Daily Check In ▾

Training Location Grand River Su.. ▾

Start

Jan	19	2016
Feb	20	2017
Mar	21	2018
8	20	AM
9	:	21 PM
10	22	


Stop


Jan	19	2016
Feb	20	2017
Mar	21	2018
8	20	AM
9	:	21 PM
10	22	


RESET SUBMIT


4G 9:27


☰ Shift Log ☰

Start: 1/16/16 10:00AM
End: 1/17/16 1:00AM
Location: Children's Hospital
Assignment: Peds 

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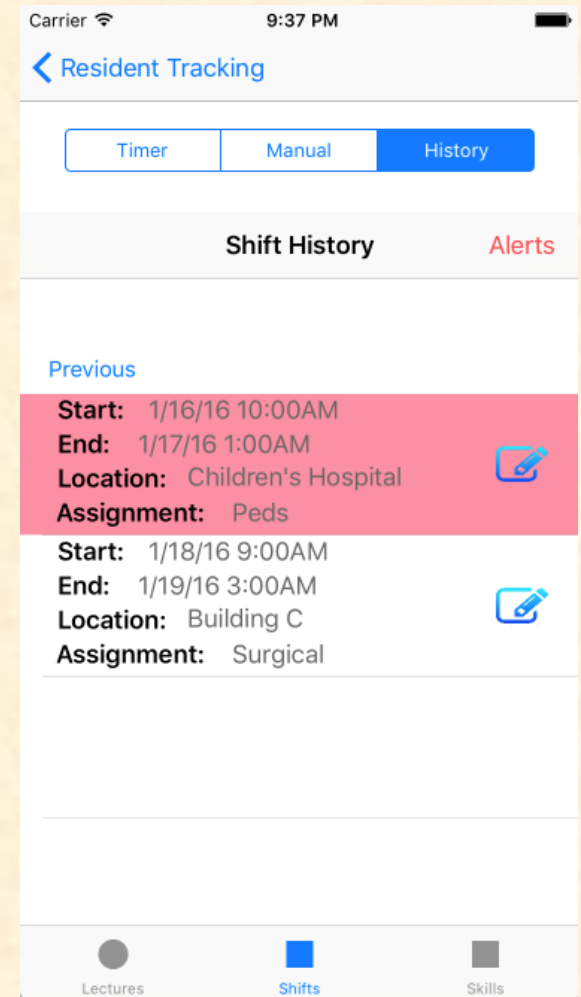
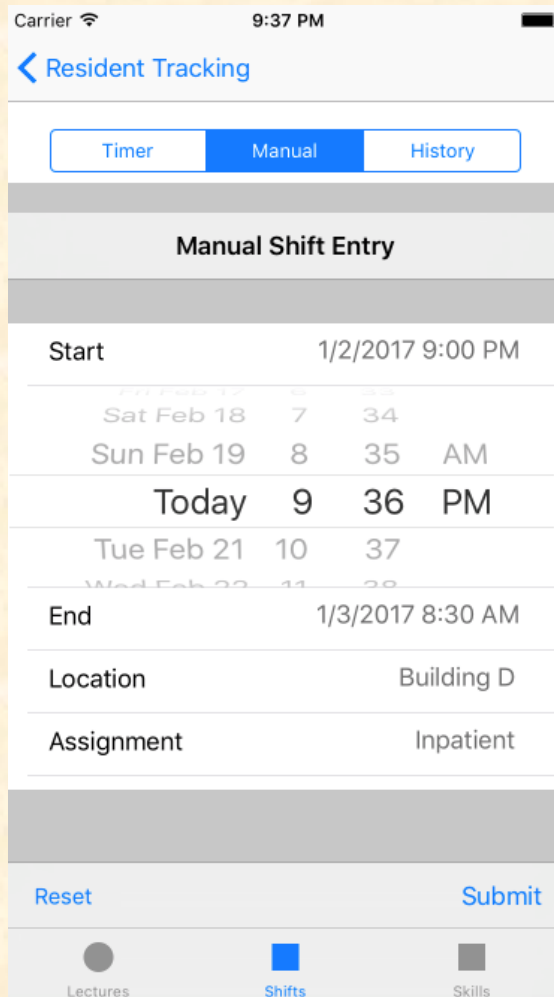
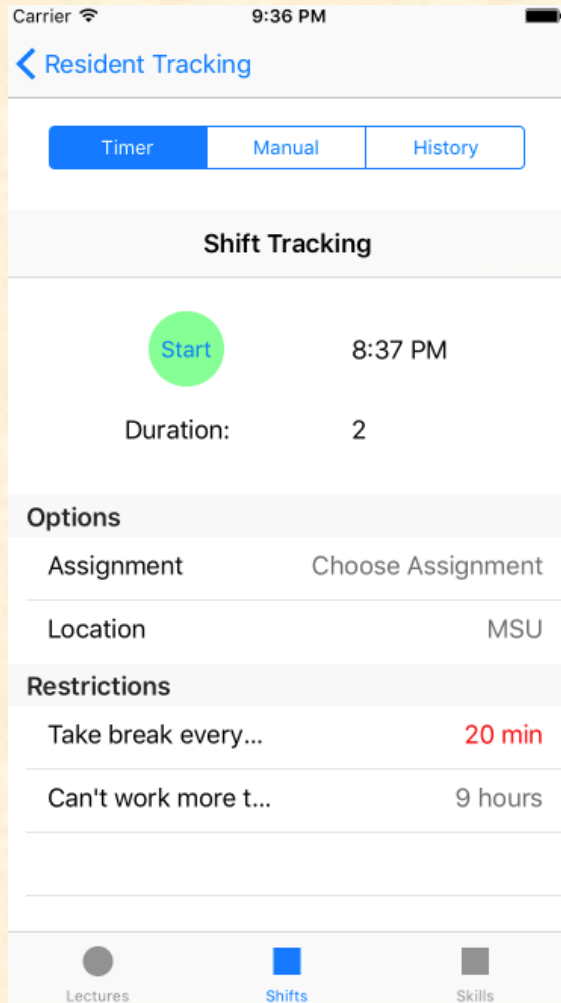
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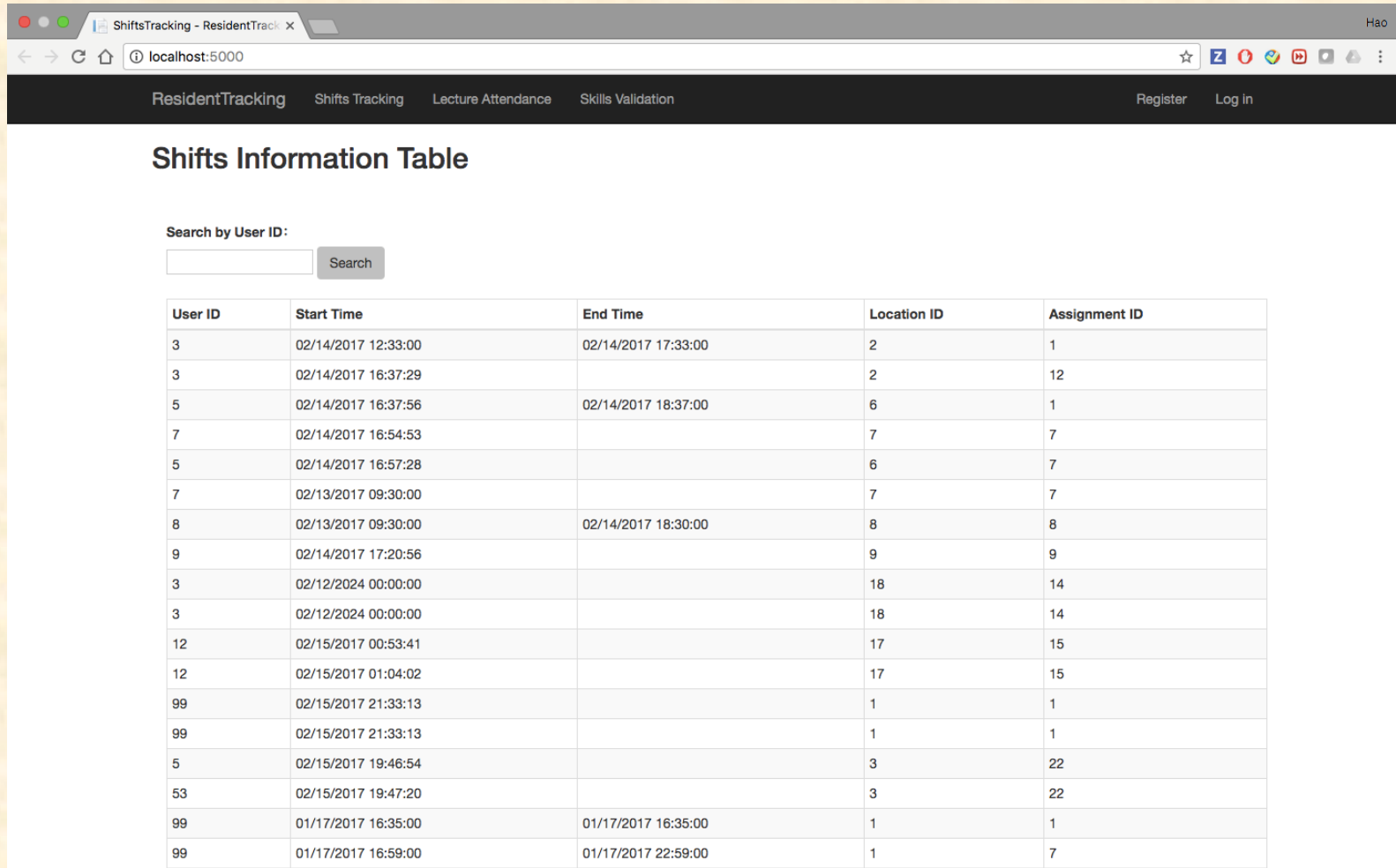
iOS: Login



iOS: Shift Tracking Features



Web Portal



The screenshot shows a web browser window with the URL `localhost:5000`. The page title is "ShiftsTracking - ResidentTrack x". The navigation bar includes links for "ResidentTracking", "Shifts Tracking", "Lecture Attendance", and "Skills Validation", along with "Register" and "Log in" buttons. The main content area is titled "Shifts Information Table" and features a search bar labeled "Search by User ID:" with a "Search" button. Below the search bar is a table with the following data:

User ID	Start Time	End Time	Location ID	Assignment ID
3	02/14/2017 12:33:00	02/14/2017 17:33:00	2	1
3	02/14/2017 16:37:29		2	12
5	02/14/2017 16:37:56	02/14/2017 18:37:00	6	1
7	02/14/2017 16:54:53		7	7
5	02/14/2017 16:57:28		6	7
7	02/13/2017 09:30:00		7	7
8	02/13/2017 09:30:00	02/14/2017 18:30:00	8	8
9	02/14/2017 17:20:56		9	9
3	02/12/2024 00:00:00		18	14
3	02/12/2024 00:00:00		18	14
12	02/15/2017 00:53:41		17	15
12	02/15/2017 01:04:02		17	15
99	02/15/2017 21:33:13		1	1
99	02/15/2017 21:33:13		1	1
5	02/15/2017 19:46:54		3	22
53	02/15/2017 19:47:20		3	22
99	01/17/2017 16:35:00	01/17/2017 16:35:00	1	1
99	01/17/2017 16:59:00	01/17/2017 22:59:00	1	7



What's left to do?

- Shift limit push notifications
- Load shift history in mobile apps
- Store state info when app is closed
- Map names to IDs for shift data
- Backend shift restriction logic
- Create view in web portal to display specific resident's shift history
- Export data to a CSV file



Questions?

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