

MICHIGAN STATE

U N I V E R S I T Y

Beta Presentation

Resident Physician Shift Tracking

The Capstone Experience

Team Spectrum Health

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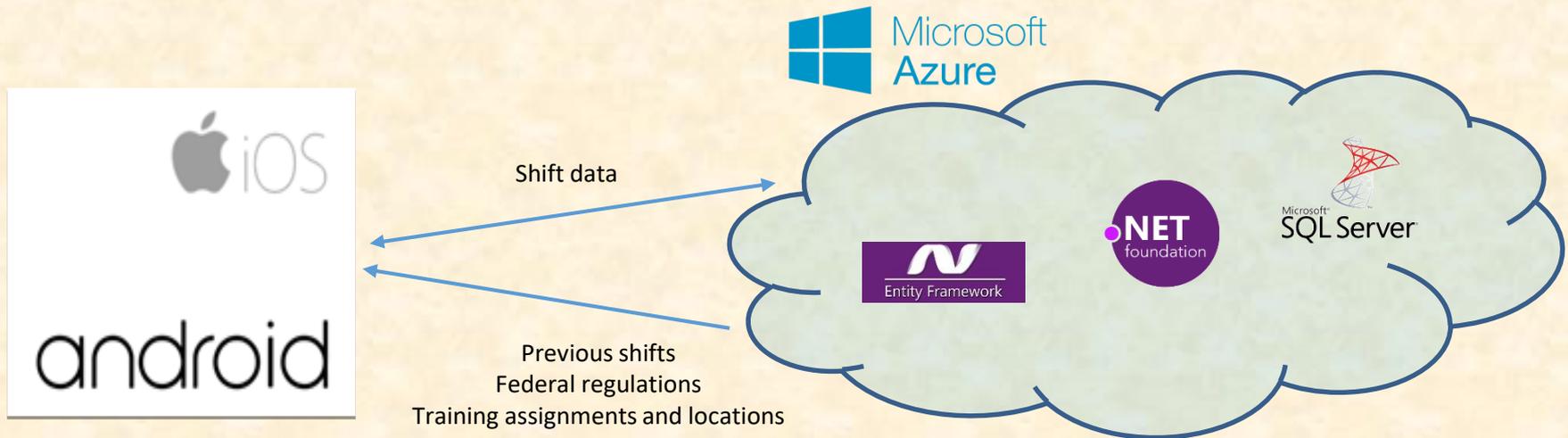
*From Students...
...to Professionals*

Project Overview

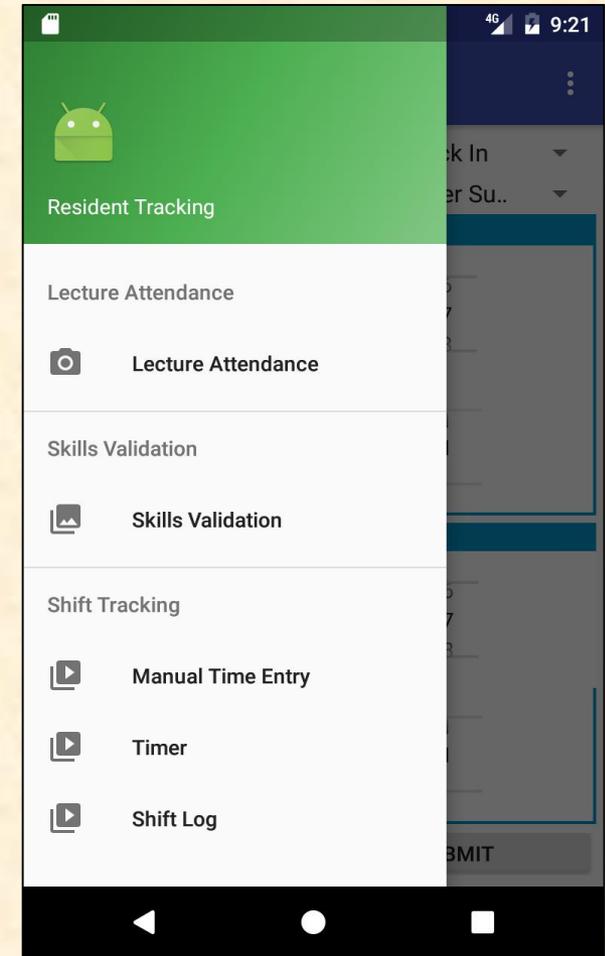
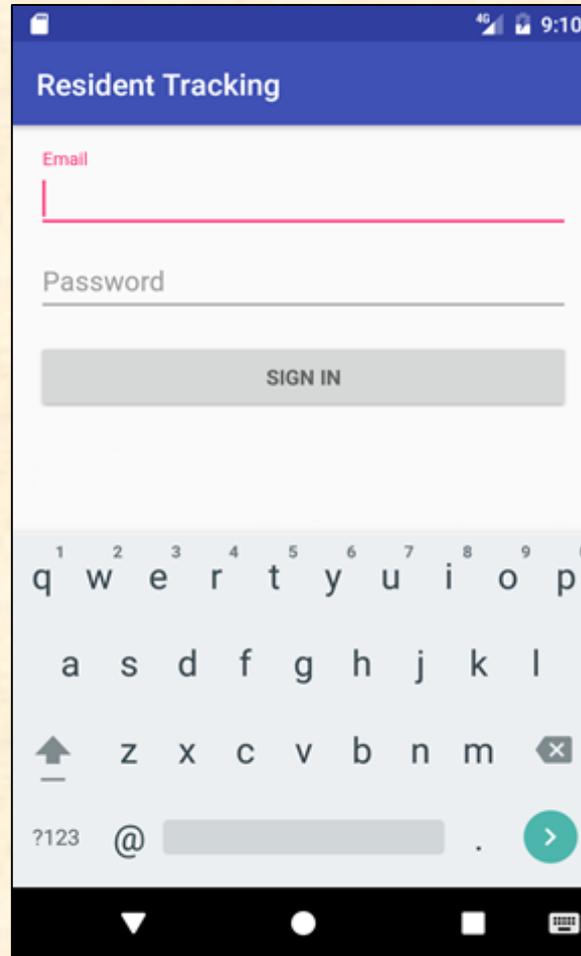
- Android and iOS app for residents to report and track their shift times
- Admin web portal for Resident Coordinator to view the residents' shift times and export the data to a CSV file
- Local notifications on the app to alert the resident when federal time restrictions are approaching



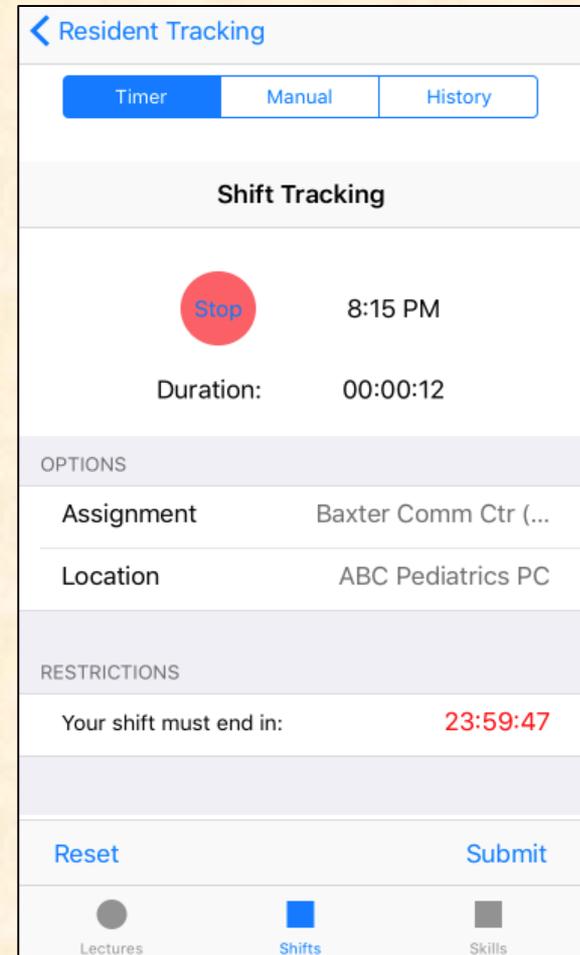
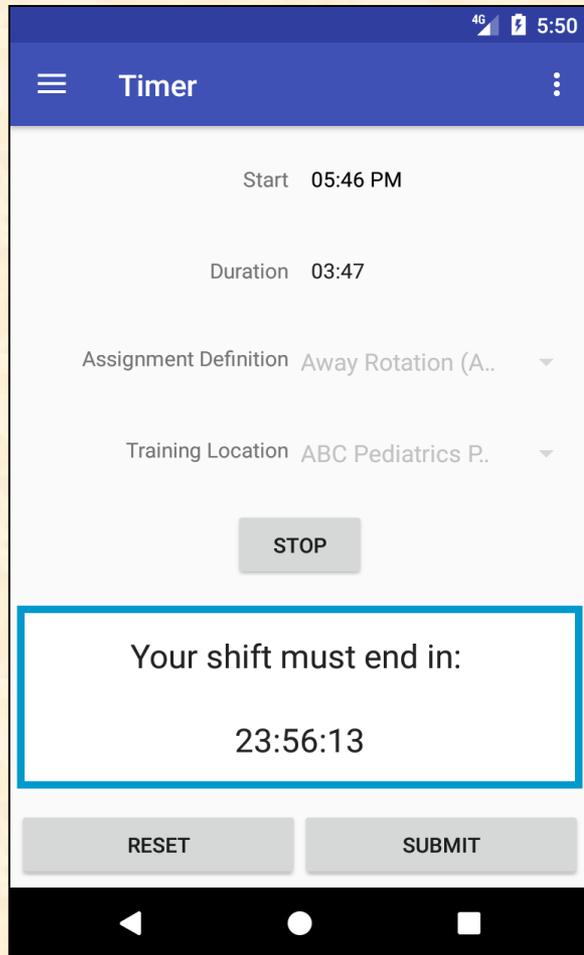
System Architecture



Login and Menu



Shift Timer Screen



Manual Entry Screen

4G 5:51

Manual Time Entry

Assignment Definition **Baxter Comm Ctr.**

Training Location **ABC Pediatrics P.**

Start

Mar	01	2016
Apr	02	2017
May	03	2018

12	39	AM	
1	:	40	PM
2	41		

Stop

Mar	01	2016
Apr	02	2017
May	03	2018

10	39	AM	
11	:	40	PM
12	41		

RESET SUBMIT

Carrier 5:52 PM

Resident Tracking

Timer Manual History

Manual Shift Entry

Start 4/2/17, 5:38 PM

Fri Mar 31 3 36

Sat Apr 1 4 37 AM

Today 5 38 PM

Mon Apr 3 6 39

Tue Apr 4 7 40

End 4/2/17, 8:09 PM

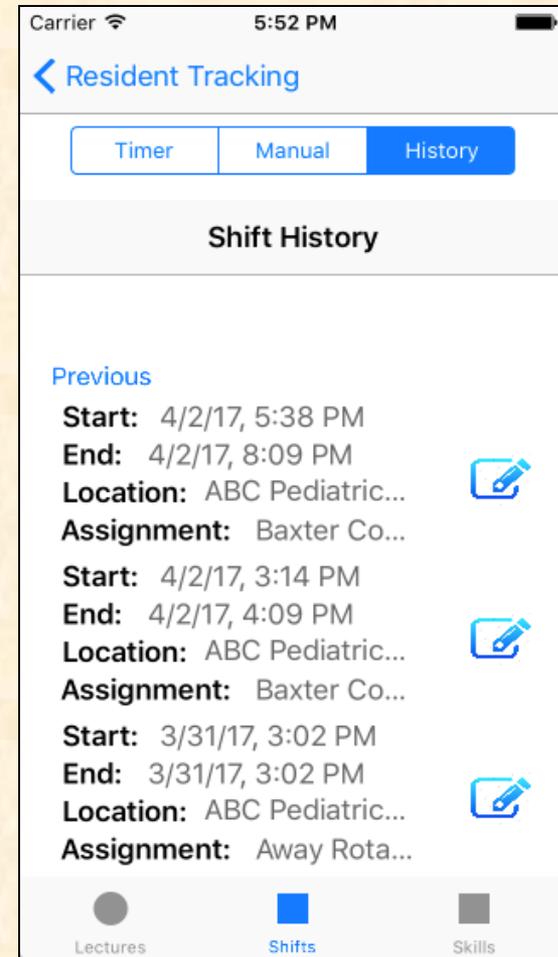
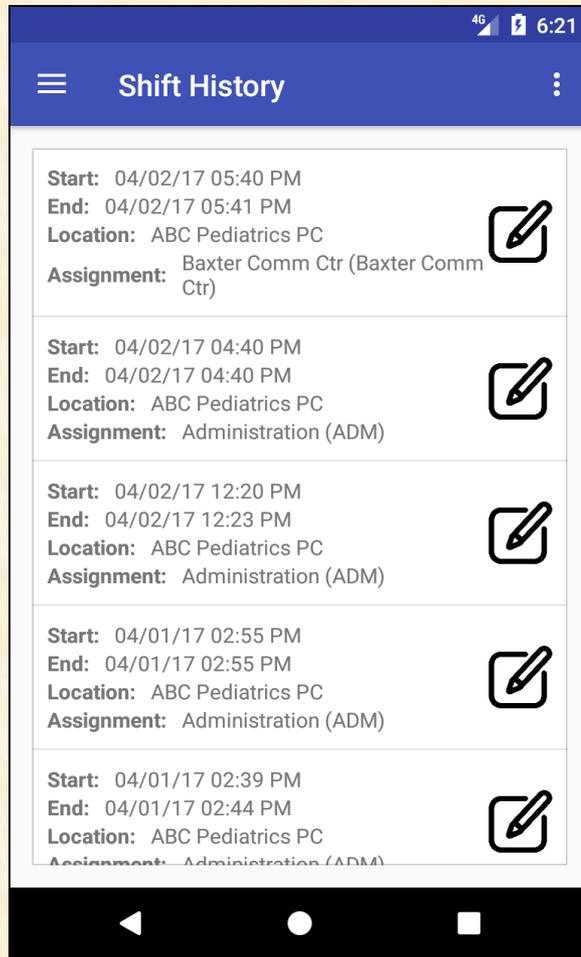
Assignment Baxter Comm Ctr...

Location ABC Pediatrics PC

Reset Submit

Lectures Shifts Skills

Shift History Screen



Admin Web Portal

The screenshot shows a web browser window with the URL localhost:5000. The page title is "ShiftsTracking - ResidentTrack x" and the user is logged in as "Hao". The navigation menu includes "ResidentTracking", "Shifts Tracking", "Lecture Attendance", and "Skills Validation". The main content area is titled "Shifts Information Table" and features a search bar labeled "Search by User Name:" with a "Search" button. Below the search bar is a table with 5 columns: Username, Start Time, End Time, Location, and Assignment. The table contains 18 rows of shift data.

Username	Start Time	End Time	Location	Assignment
fosskat1@msu.edu User Info	04/02/2017 17:51:22		ABC Pediatrics PC	Baxter Comm Ctr (Baxter Comm Ctr)
fake@test.com User Info	04/02/2017 17:46:22		ABC Pediatrics PC	Away Rotation (AWAY)
fake@test.com User Info	04/02/2017 17:40:56	04/02/2017 17:41:04	ABC Pediatrics PC	Baxter Comm Ctr (Baxter Comm Ctr)
fosskat1@msu.edu User Info	04/02/2017 17:38:04	04/02/2017 20:09:14	ABC Pediatrics PC	Baxter Comm Ctr (Baxter Comm Ctr)
fake@test.com User Info	04/02/2017 16:40:00	04/02/2017 16:40:00	ABC Pediatrics PC	Administration (ADM)
fosskat1@msu.edu User Info	04/02/2017 15:14:52	04/02/2017 16:09:14	ABC Pediatrics PC	Baxter Comm Ctr (Baxter Comm Ctr)
fake@test.com User Info	04/02/2017 12:20:02	04/02/2017 12:23:02	ABC Pediatrics PC	Administration (ADM)
fake@test.com User Info	04/01/2017 14:55:14	04/01/2017 14:55:21	ABC Pediatrics PC	Administration (ADM)
fake@test.com User Info	04/01/2017 14:39:29	04/01/2017 14:44:46	ABC Pediatrics PC	Administration (ADM)
fake@test.com User Info	03/31/2017 15:50:43	03/31/2017 15:54:48	ABC Pediatrics PC	Administration (ADM)
fosskat1@msu.edu User Info	03/31/2017 15:02:11	03/31/2017 15:02:38	ABC Pediatrics PC	Away Rotation (AWAY)
fake@test.com User Info	03/31/2017 07:06:09	03/31/2017 15:30:56	ABC Pediatrics PC	Administration (ADM)
fake@test.com User Info	03/31/2017 06:51:20	03/31/2017 07:05:17	ABC Pediatrics PC	Administration (ADM)
fosskat1@msu.edu User Info	03/29/2017 21:23:24	03/29/2017 21:23:27	ABC Pediatrics PC	Baxter Comm Ctr (Baxter Comm Ctr)
fosskat1@msu.edu User Info	03/29/2017 21:04:06	03/29/2017 21:08:49	ABC Pediatrics PC	Baxter Comm Ctr (Baxter Comm Ctr)
fosskat1@msu.edu User Info	03/28/2017 14:48:22	03/28/2017 14:48:28	ABC Pediatrics PC	Baxter Comm Ctr (Baxter Comm Ctr)
fosskat1@msu.edu User Info	03/28/2017 14:33:33	03/28/2017 14:34:31	ABC Pediatrics PC	Baxter Comm Ctr (Baxter Comm Ctr)
fosskat1@msu.edu User Info	03/27/2017 15:27:00	03/27/2017 15:27:00	ABC Pediatrics PC	Administration (ADM)

Admin Web Portal

The screenshot shows a web browser window with the URL `localhost:5000/Shifts/ResidentPage?username=lambmat1@msu.edu`. The page title is "ResidentTracking" and the user is logged in as "lambmat1@msu.edu". The page displays a table of shift data with columns for Start Time, End Time, Location, Assignment, and Shift Length. There is a search filter with "From" and "To" date inputs and a "Search" button. An "Export to CSV" button is located at the bottom right of the table area.

Start Time	End Time	Location	Assignment	Shift Length
03/25/2017 17:52:34		ABC Pediatrics PC	Administration (ADM)	
03/24/2017 16:25:00	03/25/2017 17:45:00	ABC Pediatrics PC	Away Rotation (AWAY)	1.01:20:00
03/20/2017 08:00:00	03/20/2017 20:00:00	ABC Pediatrics PC	Administration (ADM)	12:00:00
03/17/2017 08:00:00	03/17/2017 18:00:00	ABC Pediatrics PC	Away Rotation (AWAY)	10:00:00
03/15/2017 08:00:00	03/15/2017 18:00:00	ABC Pediatrics PC	Administration (ADM)	10:00:00

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What's left to do?

- Fix bug in iOS where transition timer doesn't start while the app is closed
- Unit test
- Fix bugs related to authentication on the web portal
- Fix bug related to time zone differences between server and ios/android apps
- Documentation



Questions?

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