



EPAP FINAL PRESENTATION

Team Crawford Long
November 29, 2017

AGENDA

- Stakeholders
- Project Overview, Benefits, and Guiding Principles
- Initiation Phase
- Planning Phase
- Design Phase
- Project Challenges
- Next Steps

PROJECT STAKEHOLDERS

Development Team



John Peeler

Data Analyst, Full-Stack Developer



Ben Pitts

Front End Developer, Test Analyst



Dan Crittenden

Assistant Project Manager, Back End Developer



Ashley Reese

Project Manager, Lead Developer



Justin Ucol

Full-Stack Developer, Database Administrator

PROJECT STAKEHOLDERS

Sponsors



Dr. Vikas O'Reilly-Shah, MD, PhD

Emory University, Children's Healthcare of Atlanta

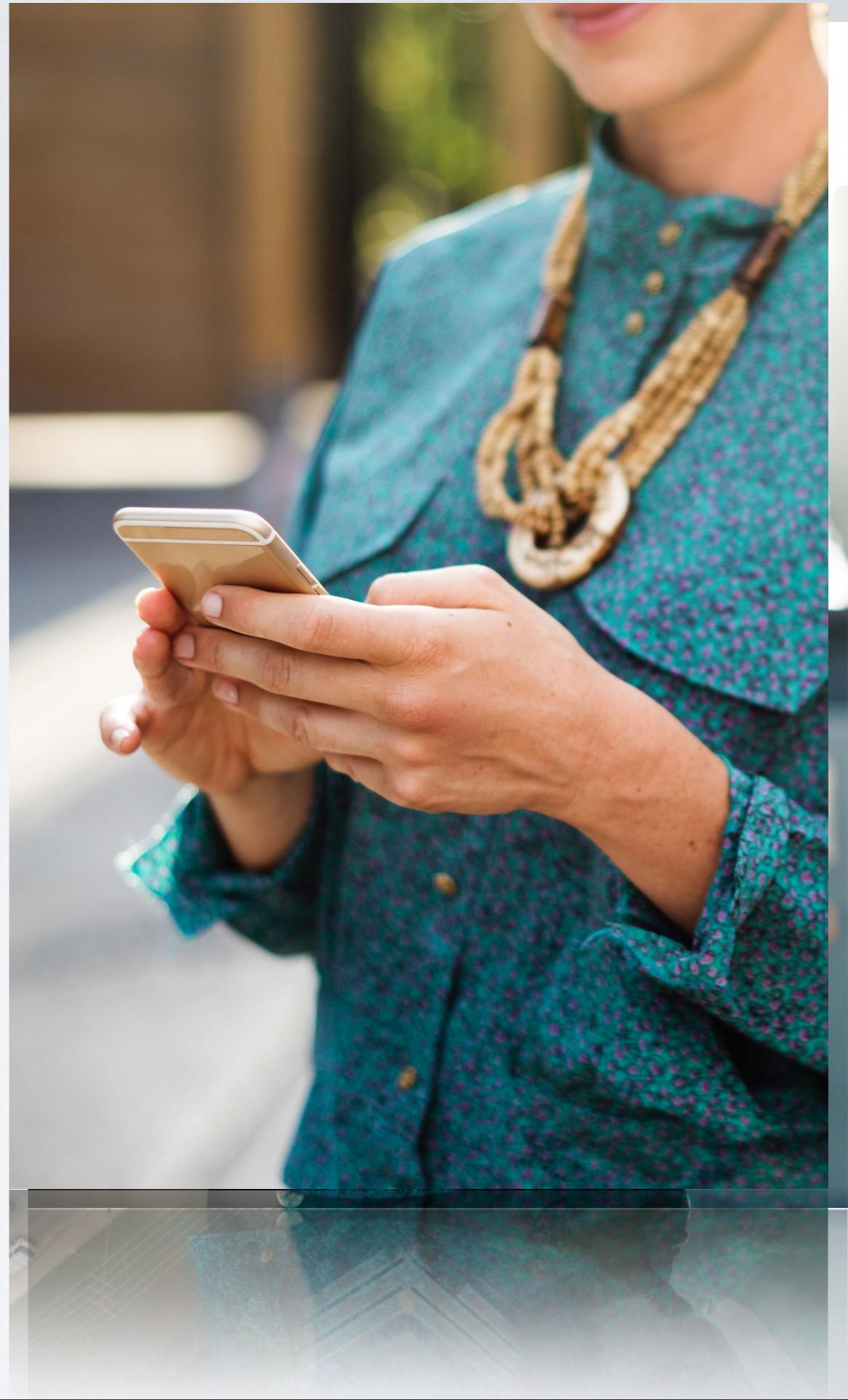


Dr. Aalap Shah, MD

Freelance Anesthesiologist, Los Angeles, CA

AMANDA

Age 28 | Anesthesiology Resident





55yo F c cholesterolemia → gallbladder hme for cay.

PMSX

DM

CHbAIC 8.2

HbA1c

NL

Hb MI (2003)

↓ start x2

PSHX

- Abnormal HB (2013)

- HbC (2013)

- Wisdom teeth extn

Date:
1/3/15

OR:

NAME: [REDACTED]

MRN: [REDACTED]

WT: 92 kg

HT:

All: PCN → Hives

Rx!

ASZ

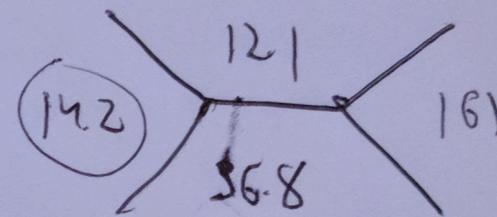
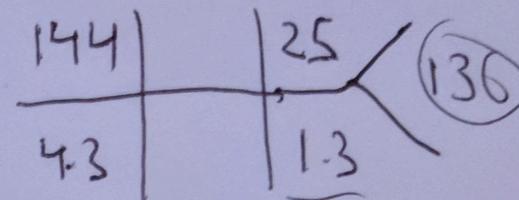
Mefenamic Acet 1.5g RTD

Loratadine 10 mg QD

HCTZ 25 QD

Metformin 1g S QDH

Simvastatin



Plan:

Preop N.

Metformin/Fection PreOp

Metformin 600 mg TID.

Injuse Propofol (1.5 mg/kg) + Phenylephrine.

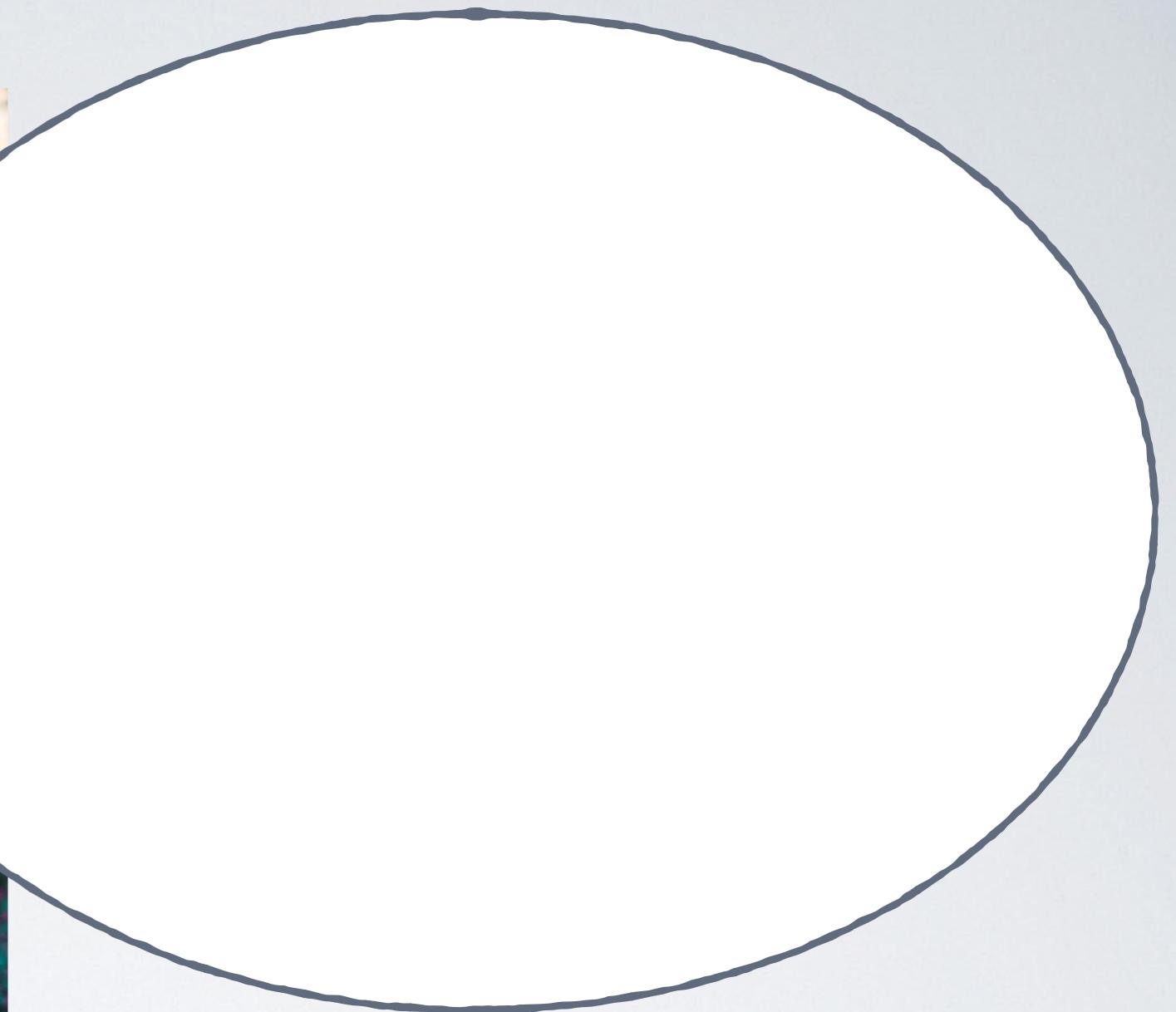
Maintain Rocuronium^{SO}/Neostine 4 mg / Ativan 0.8 mg

Aerosol N x2 (18-18_s)

Analogon Fentanyl/HM. [?] TAP block → astc oxygen

Rx Metronidazole SW/200g 3.375 g

? ART line
? phenylephrine drip.



CURRENT PAIN POINTS

- Disconnected
 - Error prone
 - Unorganized
- Physical objects
 - Inefficient delays and waste
- No centralized data



Modern



PHASE I: INITIATION

PROJECT OVERVIEW



- Prototype smartphone app
- Plan creation and workflow
- Customizable
- Reporting

PROJECT CHARTER

- Scope & requirements
- Assumptions & risk
- Management plans
- Executed in early-October

EPAP MOBILE APPLICATION



Project Charter

Prepared for: Dr. Aalap Shah & Dr. Vikas O'Reilly-Shah, Project Sponsors

Prepared by: Team Crawford Long, Terry College of Business, University of Georgia

October 1, 2017

Proposal Version 1.0

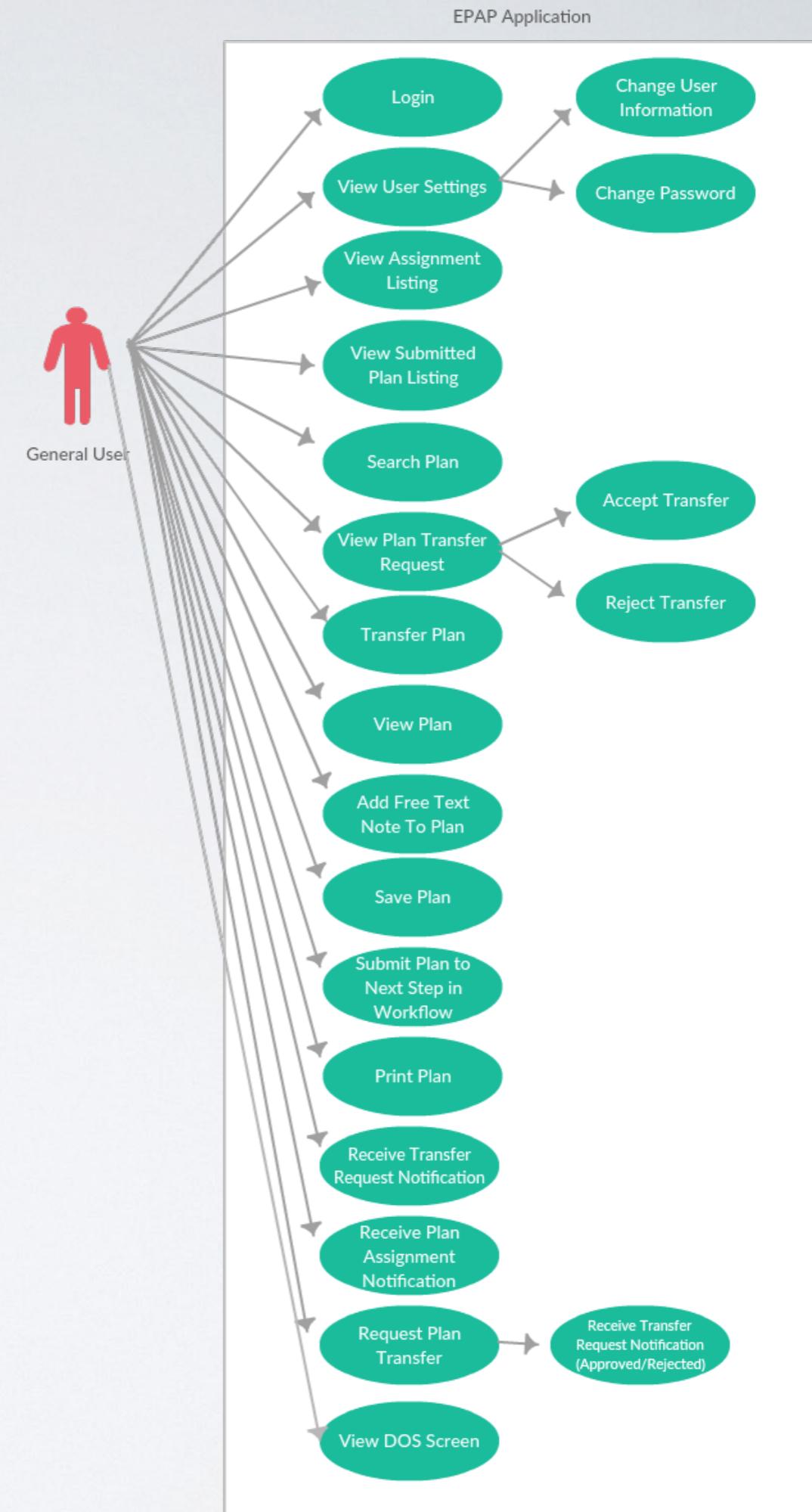
PHASE 2: PLANNING

PLANNING OVERVIEW

- Project plan/WBS
 - Use cases
 - Technology stack

USE CASE DIAGRAM

General User
(All Roles)



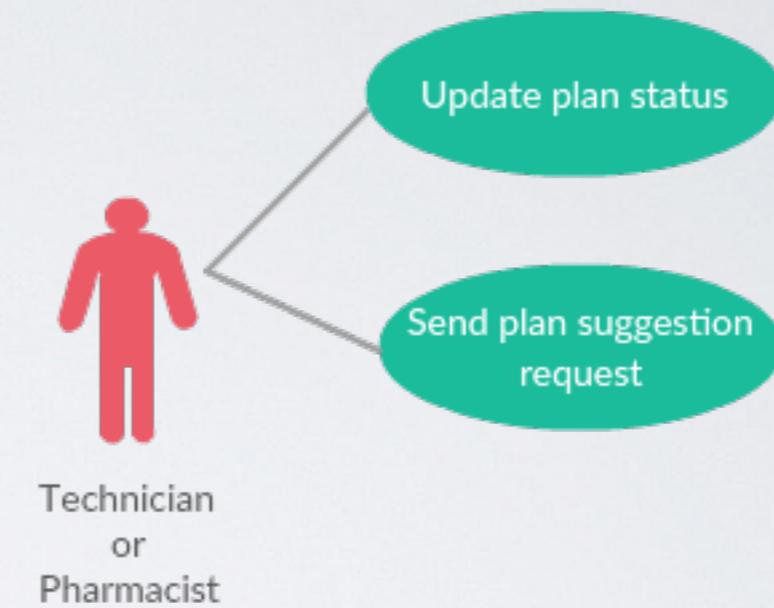


USE CASE DIAGRAM

Physician

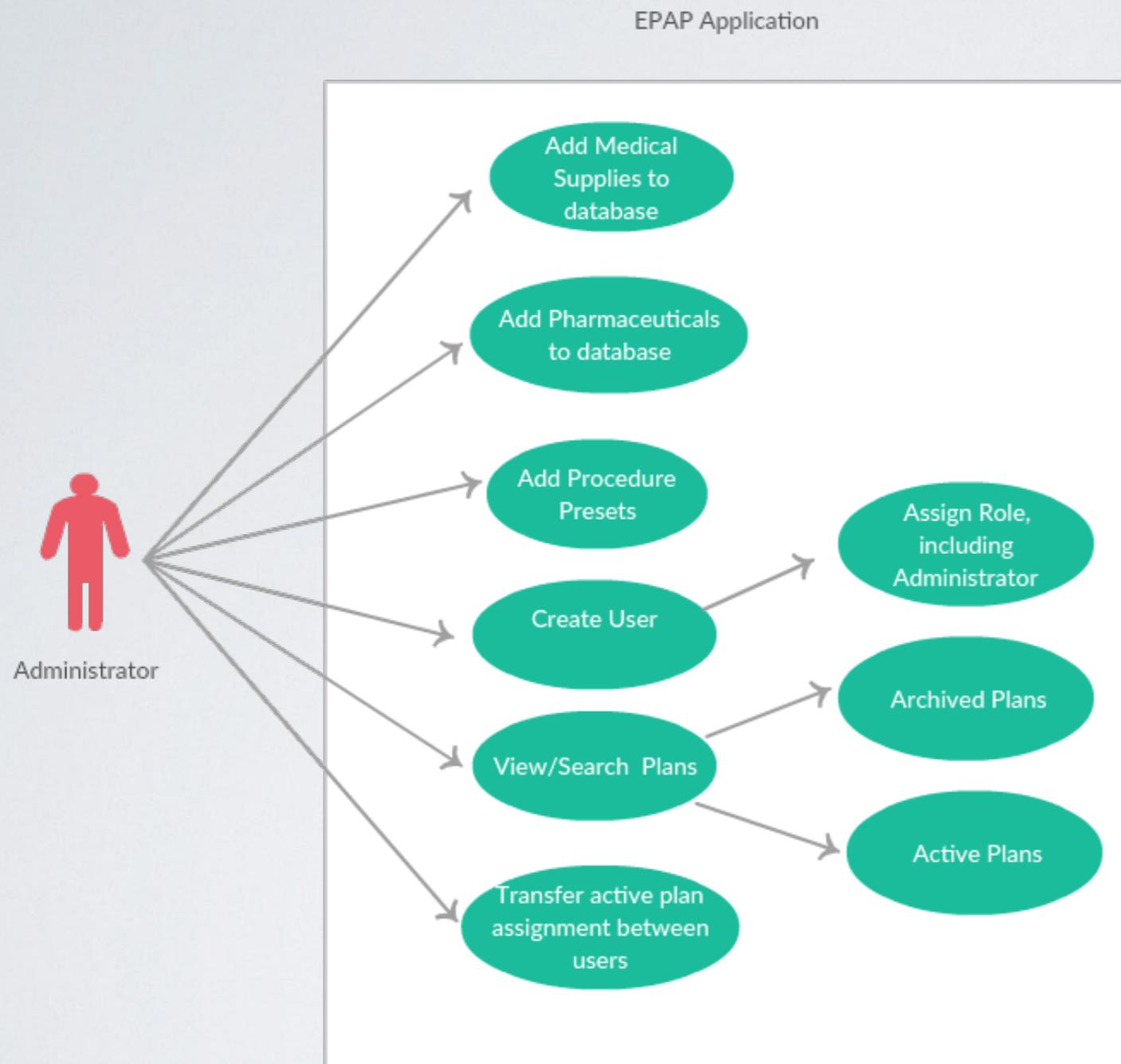
USE CASE DIAGRAM

Technician or Pharmacist



USE CASE DIAGRAM

Administrator



TECHNOLOGY STACK & FRAMEWORK SELECTION

Front-end Decision Matrix

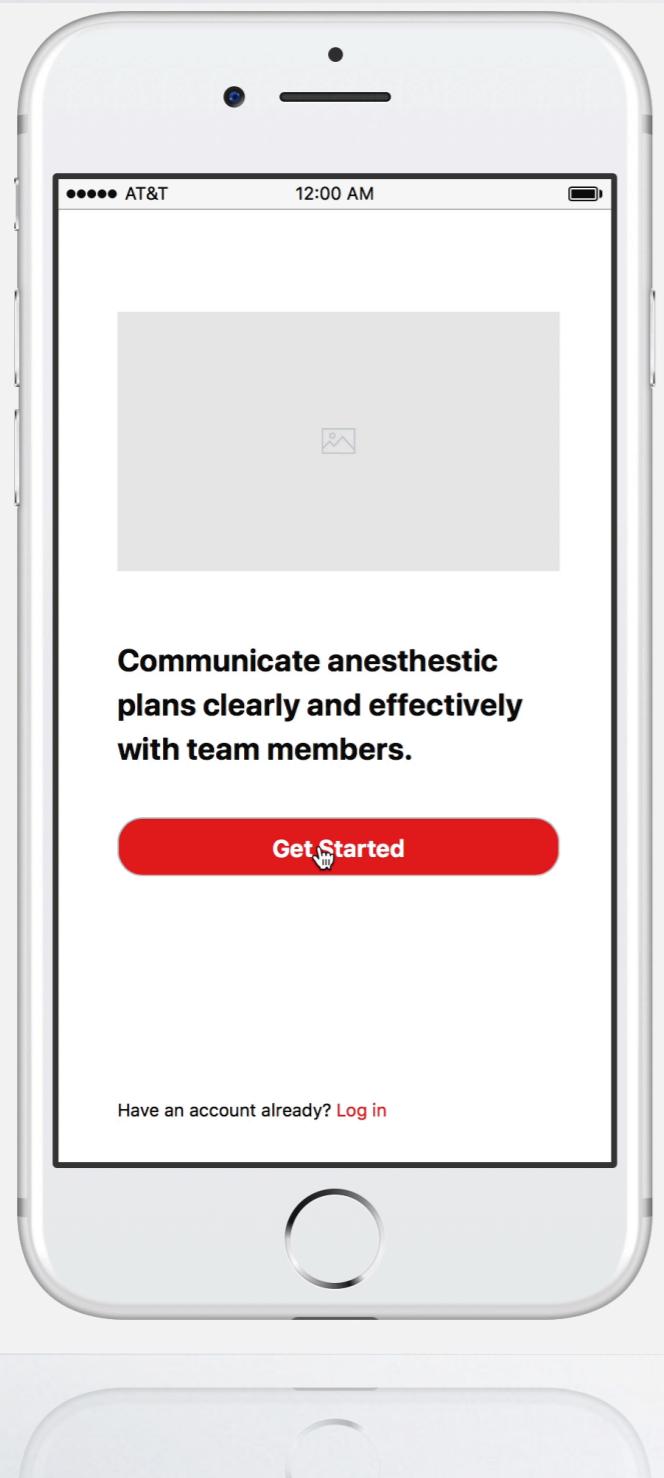
	26%	16%	26%	11%	21%	100%	
Option	Cross-Platform develop	Development-test speed	Ease of Learning	GUI(Utilizes Native widgets)	Features(Push Notification,etc)	Total Score	
React Native	80	100	80	100	100	89	<div style="width: 89%; background-color: #f08080;"></div>
Xamarian	100	50	50	100	100	79	<div style="width: 79%; background-color: #f08080;"></div>
Ionic	100	100	90	0	40	74	<div style="width: 74%; background-color: #f08080;"></div>

Back-end Decision Matrix

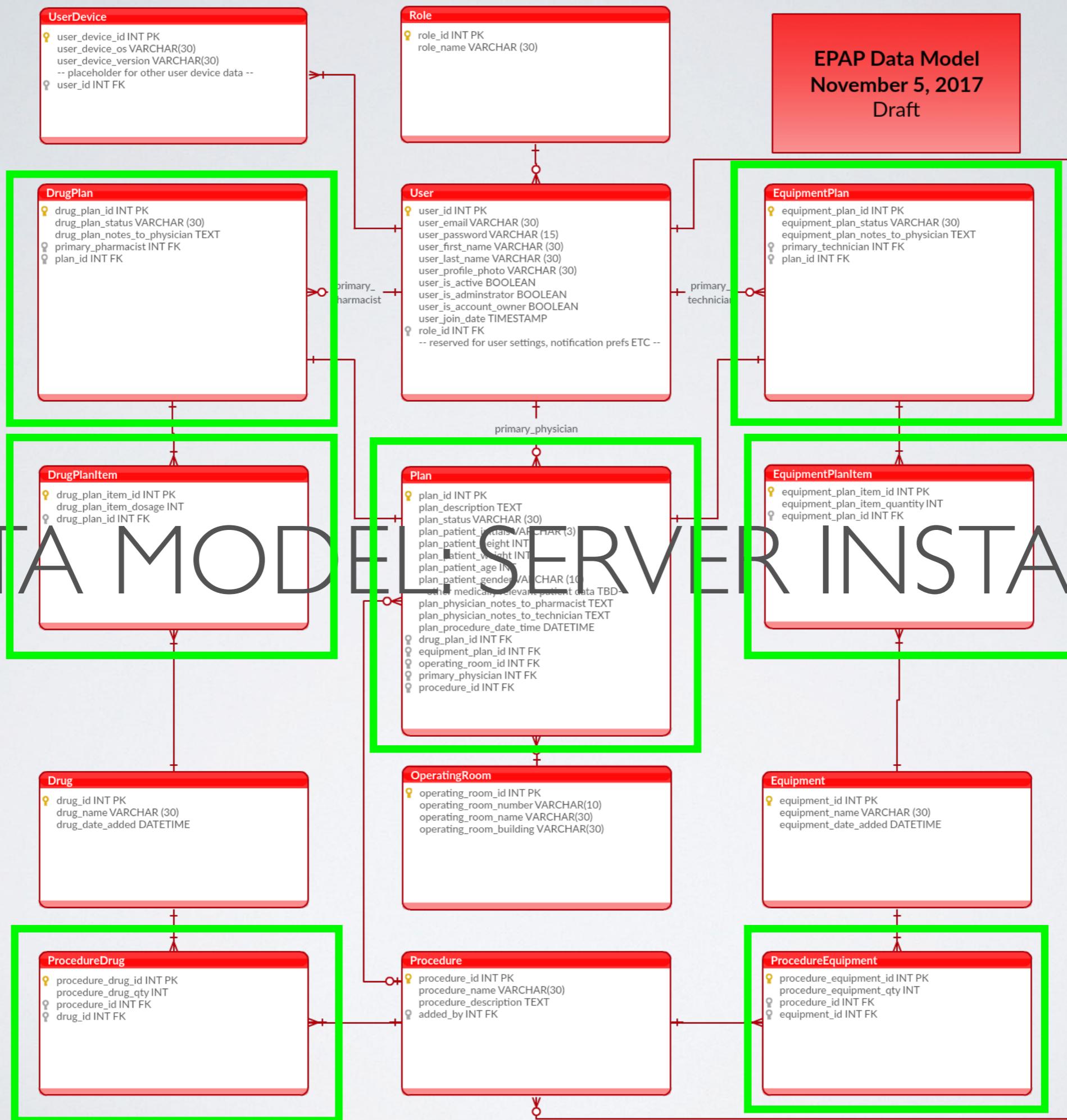
	18%	29%	24%	24%	6%	100%	
Option	Cost	Implementation speed	Difficulty(Learning Curve)	Security	Customizability	Total Score	
Custom backend (in house)	20	20	30	80	100	41	<div style="width: 41%; background-color: #f08080;"></div>
MBaas(Mobile Backend as a service)	80	100	80	50	50	77	<div style="width: 77%; background-color: #f08080;"></div>

PHASE 3: DESIGN

APPLICATION DESIGN



- Mockingbot prototype
- Database models
- MVC planning



DATA MODEL SERVER INSTANCE

PROJECT CHALLENGES

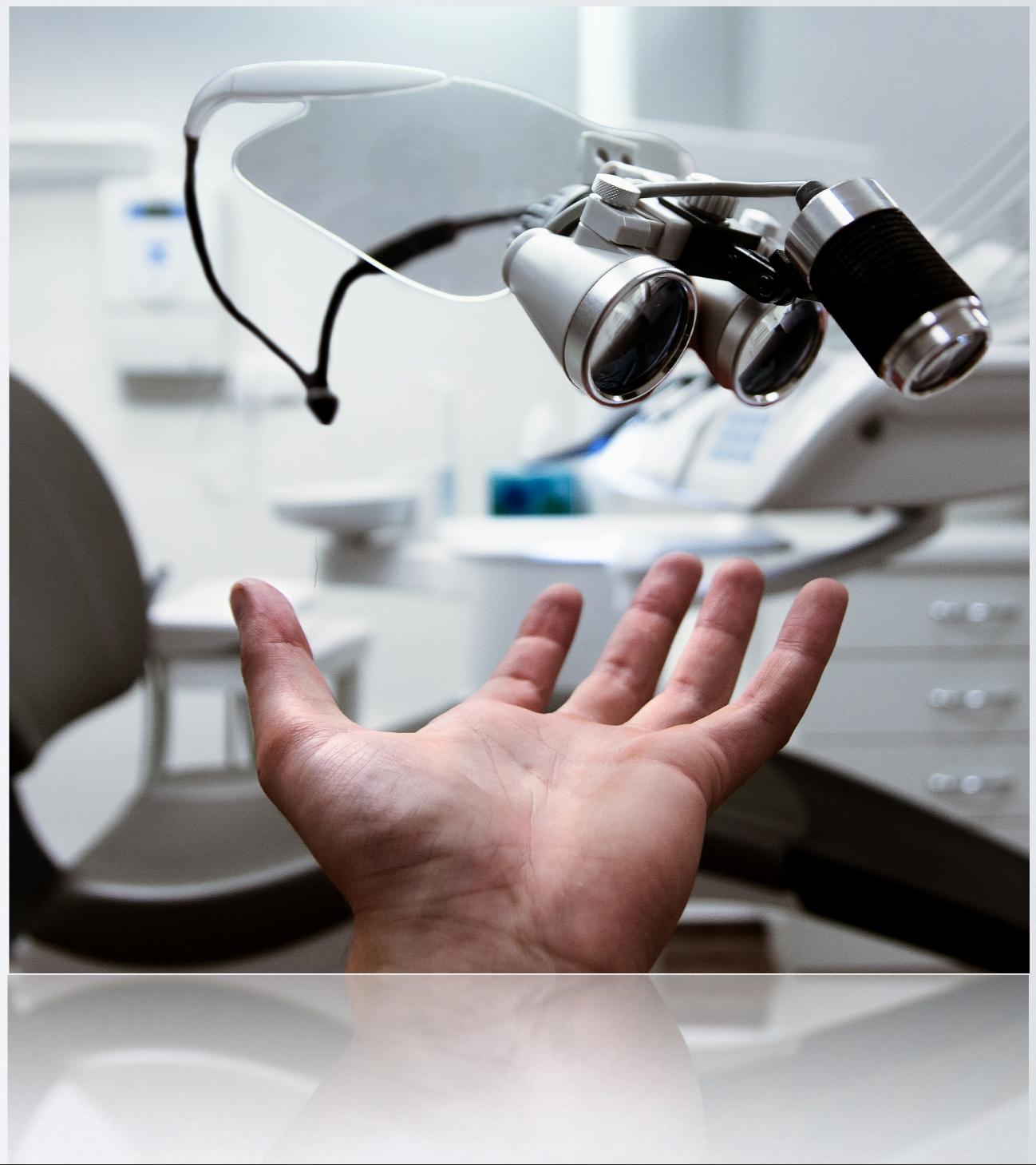
SCOPE CREEP



- **Initial scope: Demo Application**
 - Prototype
 - HIPAA compliance: Out of Scope
- **Now requesting: Production ready application**
 - Production Environment Ready
 - HIPAA: In Scope
 - Custom Back-End Development

ADDITIONAL CHALLENGES

- Medical terminology
- Sponsor meeting coordination
- New programming languages & frameworks
- Kinvey-React Native compatibility issues



NEXT STEPS

FRONT END STANDARDS CURRICULUM

- **Identified**

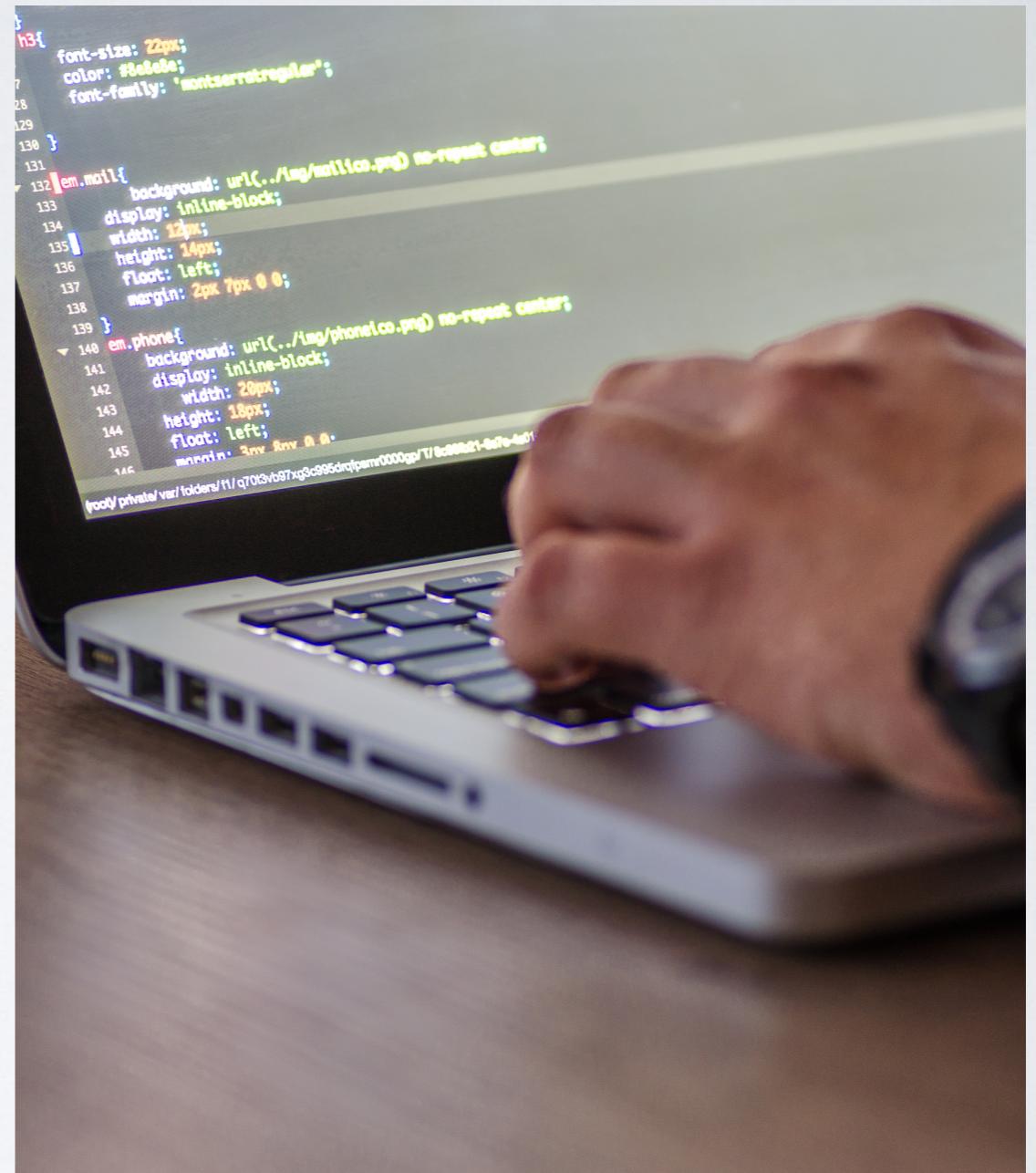
- 12 Lynda Courses
- 10 Articles/Documentation

- **Goal**

- Facilitate common understanding and vocabulary

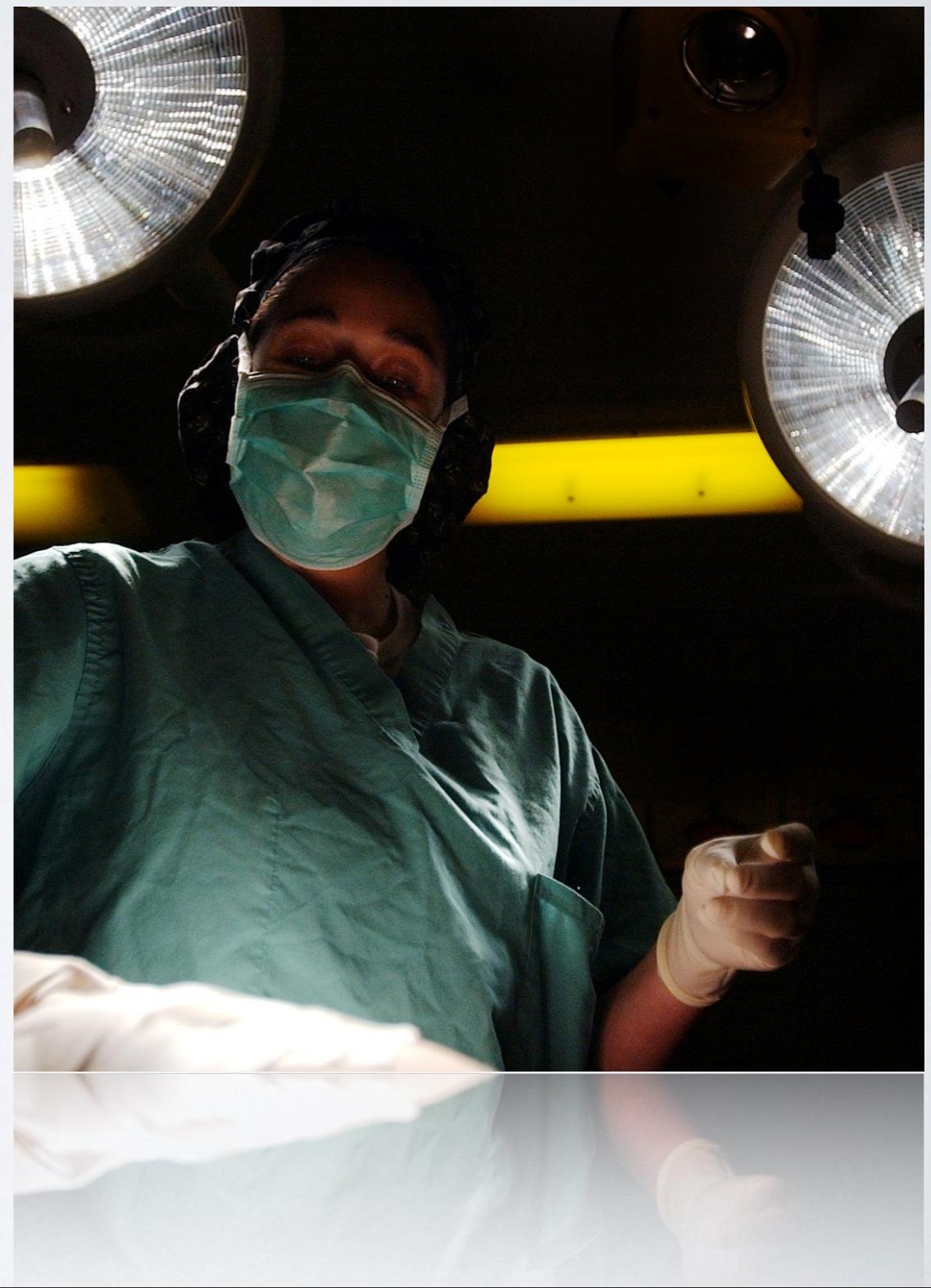
- **Material covered**

- JavaScript/ECMA6
- NPM
- React.js
- React Native



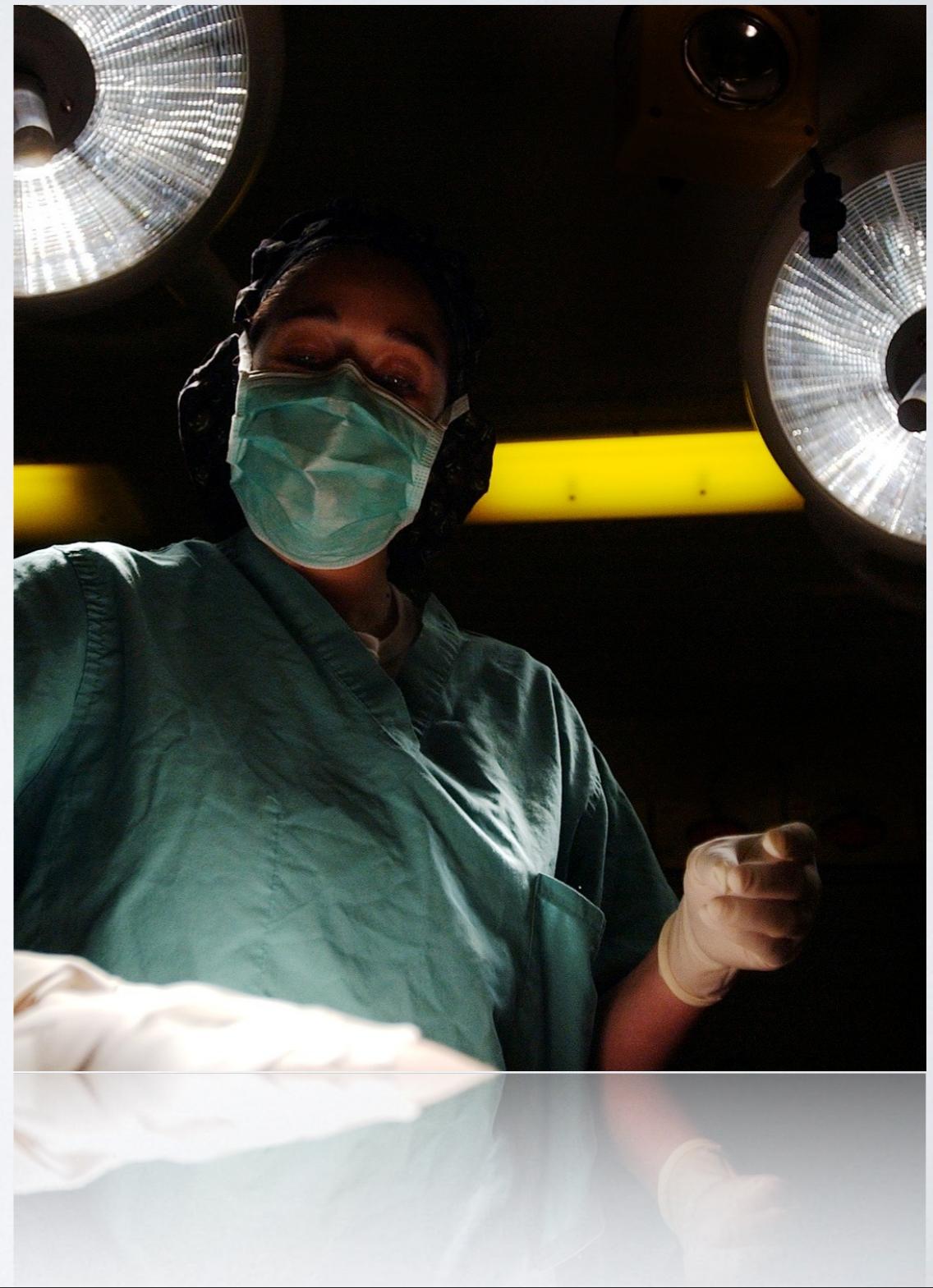
ADDITIONAL MILESTONES

- **Coding**
 - January 2018
 - Parallel development followed up by Integration
 - Database creation and loading



ADDITIONAL MILESTONES

- **Testing**
 - March 2018
- **Deployment**
 - April 2018
- **User Manual**
 - Concurrent documentation development



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HTN L stent x2
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All: PUN → Hves

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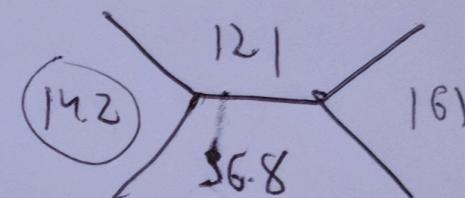
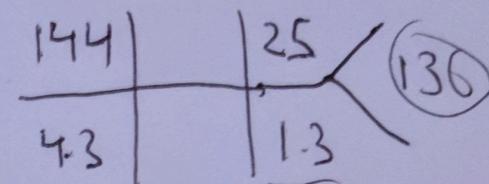
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ABX/Fast n PreOp

Mag Eft 7.0.

Indw Propofol (1.5 mg/kg) + Phenyleph.

Intramus Rovenium^{SO}/Neostine 4 mg / Glyc 0.8 mg

Aerosol N x2 (18-18₂)

(? ART line
? Phenylephrine drip)

Inj Fentanyl/HM. (?) TAP block → astc organ

Sh Metronidazole SW / Zoxy 3.375 g

BPK Worsing 2m | SWD 33-22

Tapered HW | (?) Hgb 10.6 mmHg = vnf 200ml