

# Checkpoint Presentation

## Automated VTE Quality Assurance Tool

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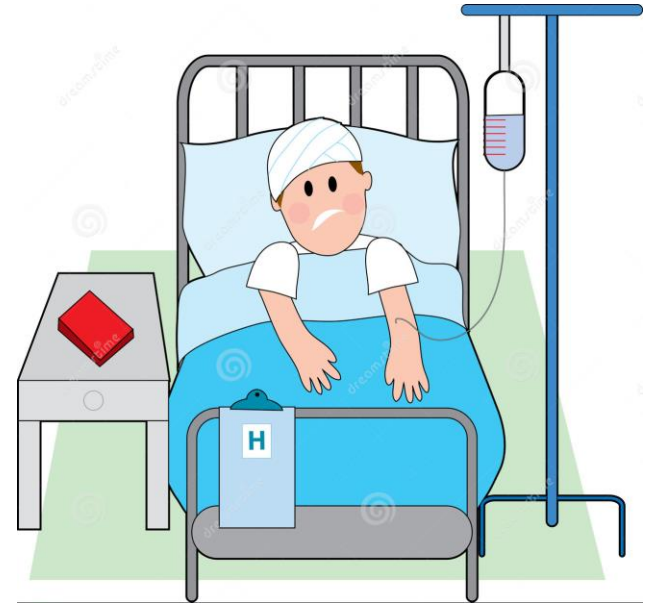
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# Project Background

- Venous Thromboembolism (VTE)
  - Combination of Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE)
  - Responsible for 800,000 deaths each year worldwide
- $\frac{2}{3}$  of the cases happen during hospitalization

**Problem: In 2005, only 32% of patients received risk-appropriate VTE prophylaxis in the Johns Hopkins Hospital. After introduction of a VTE order set, compliance only increased to 65%.**



# Project Statement

- Develop a clinician review tool that keeps track of suggested versus prescribed prophylaxis treatment
- Ranks clinician adherence to risk-appropriate prophylaxis prescription
- Provides automated continuous tracking of clinician's treatment procedures on a monthly and annual basis
- **Purpose: Improve prescribed risk-appropriate VTE prophylaxis compliance to prevent VTE onset.**

# Deliverables

## Minimum:

- Basic web tool ranking clinician adherence

## Expected:

- Incorporate advanced features
  - Trends
  - Administrator view
  - History of incorrect prophylaxis treatment
- Create manual and troubleshooting documentation

## Maximum:

- Achievements for positive reinforcement
- Transition Quality Assurance Tool to other hospital scenarios

# Responsibilities

## Stephen: Front-End

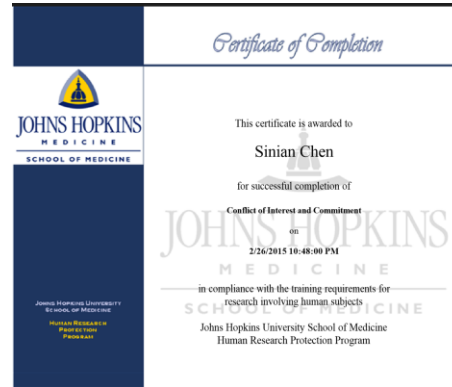
1. Receive approval for mock-up design
2. Design GUI with Bootstrap

## Vamsi: Back-End

1. Acclimate to VTE data
2. Model back-end database
3. Design database
4. Test database with data

# Current Status - Certifications

- HIPAA for Research
- Conflict of Interest
- Basic Human Subjects Research



**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)  
COURSEWORK REQUIREMENTS REPORT\***

\*NOTE: Scores on the Requirements Report reflect self-completion at the time all requirements for the course were met. See below for details. See also the "Requirements Report for Core Report EDC Scores, Including those on optional (supplemental) course elements."

• Name: Sinian Chen (ID: 2485831)  
• Institution Affiliation: Johns Hopkins Medical Institutions (ID: 840)

• Curriculum Group: Human Research  
• Current Lesson Group: Structured Research Course  
• Stage: Stage 1 - Basic Course

• Report ID: 1662762  
• Completion Date: 03/10/2016  
• Expiration Date: 03/10/2017  
• Minimum Passing: 80  
• Reported Score: 85

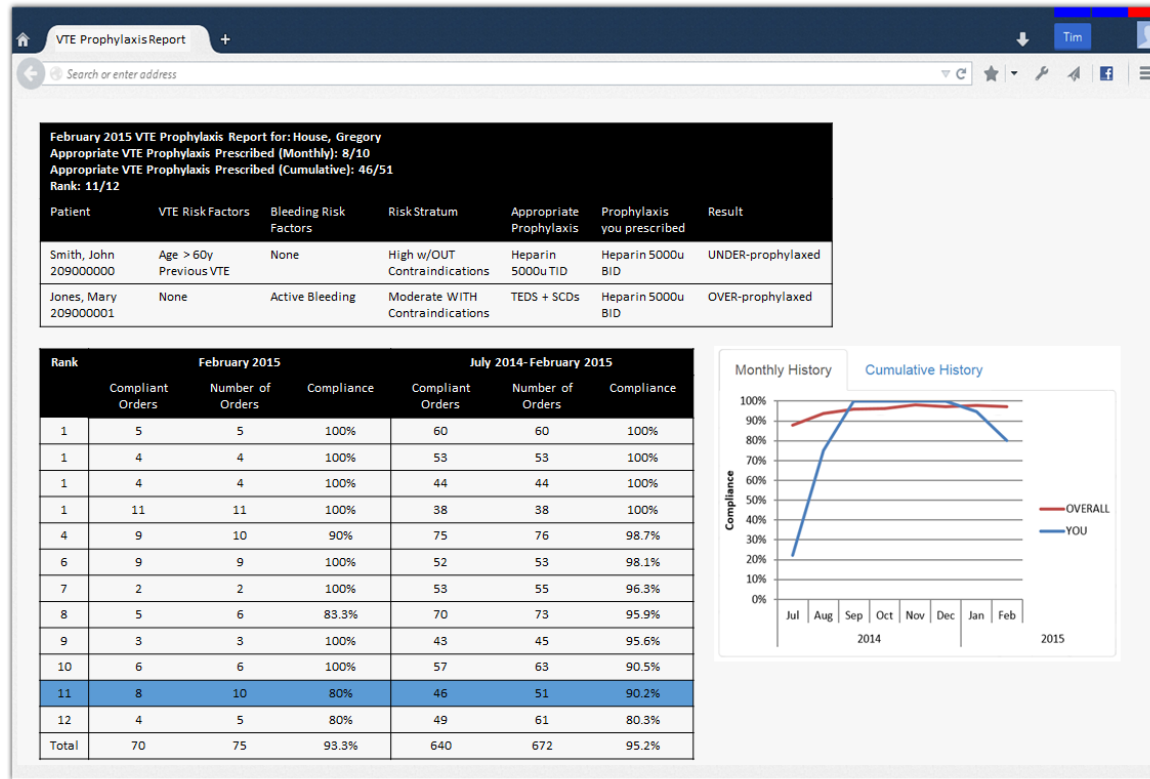
| REQUIRED AND ELECTIVE MODULES ONLY   | DATE COMPLETED | SCORE     |
|--|----------------|-----------|
| General Report and CITI Course Introduction  | 03/10/16       | 83 (100%) |
| Subjects in Research   | 03/10/16       | 87 (100%) |
| History and Ethical Principles - cont.   | 03/10/16       | 87 (100%) |
| History and Ethics of Human Subjects Research  | 03/10/16       | 77 (100%) |
| Defining Research with Human Subjects - ISE  | 02/05/16       | 45 (90%)  |
| The Federal Regulations - ISE  | 03/10/16       | 43 (90%)  |
| Basic Institutional Review Board (IRB) Regulations and Review Process                | 02/05/16       | 45 (90%)  |
| Assessing Risk - ISE   | 03/10/16       | 55 (100%) |
| Informed Consent - ISE   | 03/10/16       | 55 (100%) |
| Privacy and Confidentiality - ISE  | 02/05/16       | 45 (90%)  |
| Human and Behavioral Research (HBR) for Biomedical Researchers                       | 02/05/16       | 44 (100%) |
| Research Abuse Research  | 02/05/16       | 52 (100%) |
| Population - Research Involving Additional Considerations and/or Protections         | 02/05/16       | 39 (90%)  |
| Research on Prisoners - ISE  | 03/10/16       | 42 (100%) |
| Vulnerable Subjects - Research Involving Prisoners                                   | 03/10/16       | 44 (100%) |
| Research on Children - ISE   | 03/10/16       | 45 (90%)  |
| Vulnerable Subjects - Research Involving Children                                    | 03/10/16       | 53 (100%) |
| Research on Public Emergency and Disaster Situations - ISE                           | 03/10/16       | 54 (100%) |
| Vulnerable Subjects - Research Involving Pregnant Women, Human Fetuses, and Neonates | 03/10/16       | 33 (100%) |
| International Research - ISE   | 03/10/16       | 48 (100%) |
| International Studies  | 03/10/16       | 33 (100%) |
| Assessing Critical Events - U.S. Research Perspectives                               | 03/10/16       | 33 (100%) |
| Research and HIPAA Privacy Protections   | 03/10/16       | 25 (60%)  |
| Vulnerable Subjects - Research Involving Women/Children                              | 03/10/16       | 28 (90%)  |
| Johns Hopkins Medical Institutions   | 03/10/16       | 76 (90%)  |

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above at the time this is a paid independent Learner.

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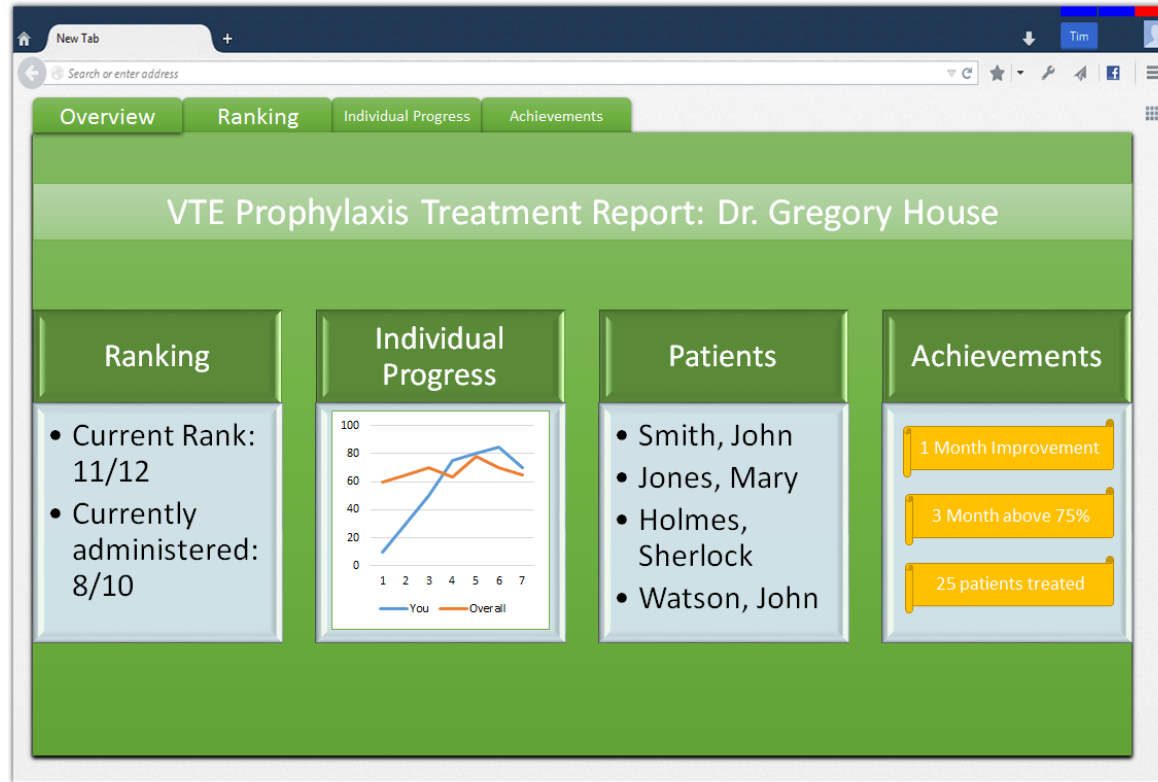


# Current Status - Mockup 1

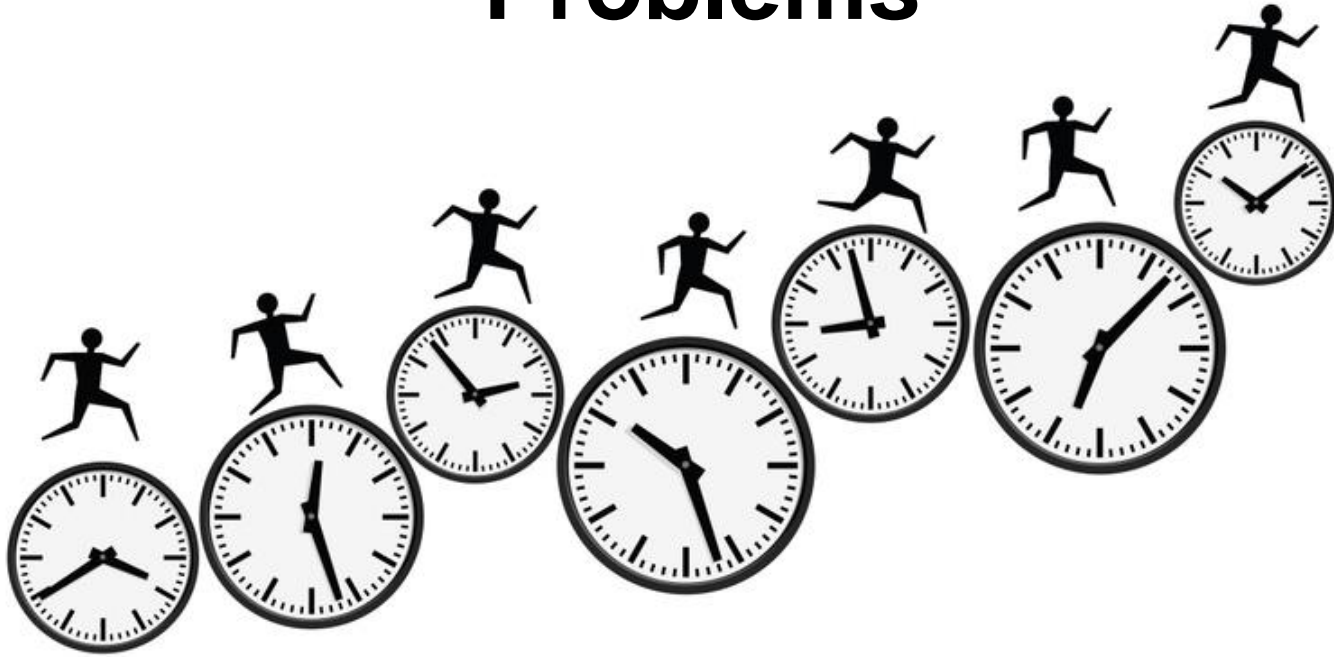




# Current Status - Mockup 2



# Problems

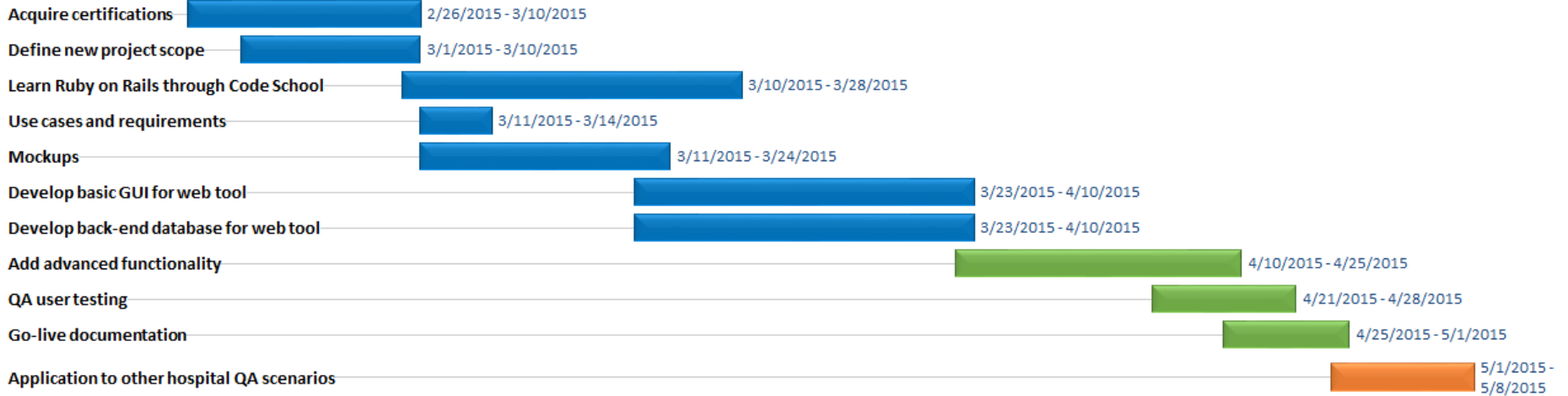
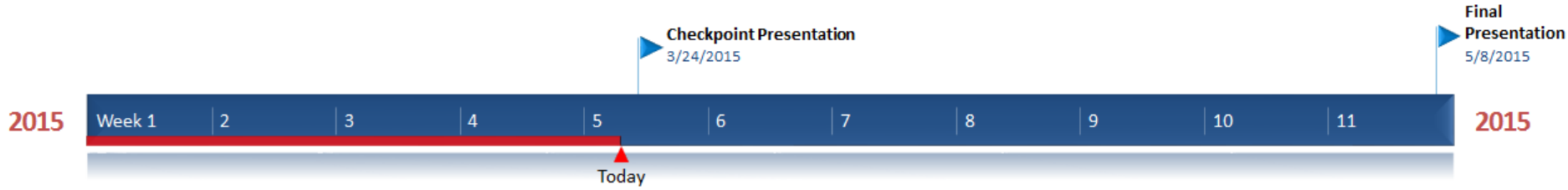


# TIME!

# Dependencies

- Certifications - **completed**
- Code School to learn Ruby on Rails - **completed**
- JIRA, Stash, Confluence - **pending**
- Prophylaxis data - **pending**
- Web Hosting server - **pending**

# Updated Timeline



# Summary

1. Necessity for this tool is more present than ever
2. Next steps: design web tool and database
3. User feedback is imperative

