Sponsor Overview

Provider of a variety of healthcare services

Local to Rochester

Require specially tailored solutions for Day Health Program
Project Overview & Scope

Major Project Components
- Clinician Portal -
  - Database -
  - Session Sign In -
Team Roles

Eric Majchrzak - Group Coordinator - Database
Calvin D’rozario - Website Coordinator
Peter Buttler - ScrumMaster
Zachary Nielsen - Design Coordinator - Source Control
Daniel Hudy - Customer Representative - Session Application
Karen Snavely - Testing
Risks and Management

Major Risks
- Fingerprint Scanner
- Deploying Database
- Shorter project time span

Risks were identified and assigned a mitigation strategy.
Initial Methodology

Full Scrum Process
- Stories, tasks, points, sprints

Did not work
- We needed a more traditional approach to Requirements and Design
Methodology Re-Work

Requirements → Design → Infrastructure → Plan → Develop → Deliver & Test → Deploy → Scrum Cycle → Review → Plan → Requirements
Requirements Gathering

- Frequent customer meetings
  - On-site visits
- Heavy focus on SRS
  - Many Use Cases
- Required multiple customer artifacts
  - Many of our design decisions centered around these
Major Requirements

● Functional
  ○ Handle multiple documents
  ○ Maintain patient care plans
  ○ Tracking of patient billing
  ○ Maintaining accurate patient attendance
  ○ Generate statistical reports

● Non-functional
  ○ HIPAA Security Compliance
  ○ Usability
Requirements Analysis

- Flexible Database Design
  - Accomodate evolving document types
- Easy integration of an external application
  - Fingerprint scanner
- Web based
  - Platform independent
Data Driven Design

- Maintain Documents
  - Variable Tracked Data
- Run Statistics
- Auditing
Database Design Decisions

FieldInstance<Type>
- FieldInstance<Type>ID Int
- FID Int
- DIID Int
- RIID Int
- Value <Type>
- Active Bit

Field
- FieldID Int
- DID Int
- RID Int
- Name VARCHAR(45)
- Type VARCHAR(45)
- Date Int
- Active Bit
Audit

Audit

AuditID Int
TableName VARCHAR(45)
Action VARCHAR(45)
Previous VARCHAR(1024)
New VARCHAR(1024)
Date Int
Original Architecture & Plan
Technologies

Tech Stack
- Angular
- SQL Server

Dev Tools
- maven
- Karma

Other Technologies
- B
Demo
Fingerprint Scanner

Ordered a Scanner

Didn’t Get Access to SDK

Mitigation Solution:

360 Biometrics
Integration Problems

Database

Spring

Microsoft SQL Server

No connection icon

Spring icon
Testing

- Integration Testing
  - Fingerprint Scanner
  - Database Connection Issues

- Usability Testing
  - End User Technology Skill Level
  - Strongly Stressed Requirement from Sponsor
Plan for Second Semester (Summer)

- **Starting Scrum**
  - Deliver New Features Every Sprint

- **Deploy Key Features**
  - Statistics
  - Billing
  - Session Application Integration
  - Document Templates

- **RIT Required Deliverables**
Questions?