TRILLIUM DAY HEALTH PROGRAM

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SE Department Senior Project - 2015

Motivation
Assist Trillium Day Health staff in providing effective Patient care
- Digitize currently physical artifacts (Assessment, Care Plans, Attendance)
- Provide a web application to view these artifacts
- Provide a database to store the artifacts
- Provide and application to log and verify attendance with fingerprint scans

More Time for Clinic Workers
Better Care for Patients

Background Info
- Trillium is a local health care clinic
- The Day Health Program provides patient education and activity
- Day Health Sessions are hosted by Trillium and run by different facilitators
- To manage this program Trillium needs...
  - Medical documentation for the patients
  - Tracking patient progress in the program
  - The ability to record accurate patient attendance

Process and Methodology
Overview
- Waterfall for Requirements and Design
- Scrum for Implementation
- "Infrastructure" stage to set up development tools (Git, Database Server, etc.)

Design
Key aspects of Design
- User friendly and easy to learn
- Patient-Document and Patient-Session relationships
- Document history for Auditing
- Security

Database Design
- Allowing variable Document Types

Learned to save time by switching to technologies better suited to the project. Changing from Spring to node.js saved the team a lot of time.

Lessons Learned
Process Lessons
- Scrum is ineffective when team and domain are new
- Need time to learn domain and understand requirements

Outsourcing Fingerprint Application to 360Biometrics
- Did not have to spend time learning new technologies
- Experts much more efficient than we could have been.
- Less control over finished product
- Integration risks
- Overhead on requirements communication.

Technology Lessons
Learned the importance of quick and organized team communication. Slack was especially helpful.

Delivered Product
Changes to Trillium Work-flow
- Easier to review patient attendance
- Easier to look up patient documents
- Session App and Fingerprint scanning provides solid attendance verification
- Updating changes to patients or documents is much simpler

Web Portal
An Application to assist Trillium Clinic workers in day-to-day Activities

Patients
View and manage Patients in the Program

Classes
View and manage Classes offered by Day Health

Billing
Perform and manage the billing process

Statistics
Information about the Program as a whole, such as Attendance

Session App
Fingerprint Validation - Patient Attendance

Database
Auditing Support
Configurable Document Types

Here you see our main metric for measuring progress, story points, in a burn-down chart.