DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
THE UNIVERSITY OF TEXAS AT ARLINGTON

PROJECT CHARTER
CSE 4316: SENIOR DESIGN I
SUMMER 2016

SMART HOSPITAL DEV TEAM
S.H. MANAGEMENT TOOL

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Revision History

Revision	Date	Author(s)	Description
0.0.1	06.28.2016	EF	document creation
0.0.2	07.07.2016	AJ, EF, NR, NH, VG	Turn-in candidate 1
0.1.0	07.08.2016	EF	First Turn-in

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1 VISION

Smart Hospital is a web-based software application which is created to manage the simulated environment in the UT Arlington Smart Hospital facility. The software will help the Smart Hospital client in successfully managing their inventory, employee schedules, time, generated reports, and other factors. THere has not been any software in the market where all of these things can be accomplished in a single place. The Smart Hospital Management Tool is valuable to our customer because using multiple applications for a single purpose is a hassle when it can be done with one. This project is valuable to the team because it gives us an opportunity to create a marketable product. THe success of this project will allow the team to form a product company. The team will deploy the Smart Hospital Management tool in multiple stages with increasing measures of success at each stage. The team will be successful if the customer and agile expert give positive responses. The second stage will see a Smart Hospital beta available for customer trial. Meeting the customer's needs will produce success in the product. The final stage will finalize work and handover completed software to the customer and open source community.

2 MISSION

The Smart Hospital project is given the duty of creating an system for the students and staff of the Smart Hospital. The system will accomplish being able to keep track of time of employees, inventory, and schedules. It might appear simple, but Soohyun Kim, the head of the Smart Hospital has requested more specific items under each of the categories previously listed. Achieving the end goal will require the team to learn HTML, CSS, Javascript, Nodejs, MySQL, and use the Bracket IDE. Upon learning these items the team also must keep a constant communication with Stone Kim to assure everything is to his expectations. The team will work rigously to meet the demands of this project and in the end produce a product to the liking of Soohyun Kim.

3 SUCCESS CRITERIA

We feel that the project will be successful when the following major functionality is implemented:

- The system or some aspect of our deliverable will allow the smart Hospital Faculty to easily view which workstations are free and which workstations are taken from a calendar view.
- The system allows inventory to be checked easily and quickly.
- Event notifications and confirmations are correctly sent to the correct faculty or student members.

and these issues are addressed:

- The system is easy to learn to use.
- Information is easily managed.
- The data is correct and is organized such that interaction between data, such as dates and events, are valid.

4 Background

The Smart Hospital is using several websites such as mysignup.com, signupgenius.com, quartz, timeclockwizard.com, and outlook calendar. It is a system to keep track of students clocking in and out, inventory management tracking, simulation schedules, and student hours. This system is currently used by faculty and students to maintain the Smart Hospital. The Smart Hospital Management Website has been assigned to the team inorder to establish a single web application for the Smart Hospital. The web application is being created to speed up the everyday proceedings and to better manage the inventory of the Smart Hospital.

5 Related Work

Current work that is related to this projet includes:

- mysignup.com - This is a website that basically allows for online sign-ups
- signupgenius.com - This is another website that allows for online sign-ups.
- quartz.com - This is a website that manages employee times.
- outlook.com - Outlook contains a calendar feature that the Smart Hospital faculty desired.

6 System Overview

The Smart Hospital Management Tool is a deployable website for use in UT Arlington's Smart Hospital. The management tool will be based on a node.js back end with HTML, CSS, and Javascript front ends. The website will be fast and responsive in order to keep up with the demands of a fast paced simulation hospital. Tools within the program will be touch friendly and easy to understand for use on tablet devices throughout the Smart Hospital and future deployment locations. Students and faculty will be able to log in using UT Arlington's universal log in. Future document updates will include updated detailed information as the system becomes more clear.

7 Roles & Responsibilities

The team members are split up with the following responsibilities:

- Scrum Master/Project Owner: Edward Fankhauser
- Development Member: Victor Garcia
- Development Member: Allison Johnsgard
- Development Member: Narayan Rimal
- Development Member: Neelim Haider
- Smart Hospital Contact: Soohyun Kim
- S.H. Item Manager: Jacquelyn Donaldson
- Senior Design Stakeholder: Christopher McMurrough

8 Facilities & Equipment

The facilities and equipment needed for this project are extremely simple. The team will be using the layout of the entire Smart Hospital for references and the scanning system the Smart Hospital already has in place. As for other equipment, the team will use their personal computers with Brackets, Github, Nodejs, and MySQL. All of the items listed will help move the team forward as the project goes underway.

9 Cost Proposal

The Smart Hospital project is a deployable, web based management tool. Costs for the project will focus solely on server and domain costs.

9.1 Preliminary Budget

The Preliminary costs will be low. The Smart Hospital project is a software one. Little to no hardware is required at the current stage. As the project moves forward, costs for server services will be researched. A quality shared hosting server for websites can be as low as $50 per year, some even for free. This will likely be the teams cost for testing and deploying before the management tools are officially released.

9.2 Current & Pending Support

The current budget for the program is $800 provided by the senior design class through the use of tuition fees. Pending support will come from UT Arlington and the Smart Hospital stakeholders in the form of long term server and maintenance fees. UT Arlington may be able to provide a server for the Smart Hospital to run on after the product release. Secondary options are still being considered in case UT Arlington cannot provide a suitable server.

10 Documentation & Reporting

In this section, the team will describe all of the various artifacts that the team will generate and maintain during the project lifecycle.

10.1 Project Charter

The purpose of the Project Charter is to lay out an idea of what the project will be about and what the finished product will be. The Project Charter will be posted on GitHub with the rest of the team's documents.

10.2 Product Backlog

The team will be using scrumdesk.com to keep track of the amount of hours worked on certain aspects of the project. The team will discuss the backlog requirements during meetings and vote on times to required to complete the backlog item. The team will keep in touch with the stakeholders to decide backlog prioritization.

10.3 Sprint Planning

Sprint planning will be done in person and recorded in journals on the third week on a Thursday.

10.3.1 Sprint Goal

The sprint goal will be recorded in team members journals and will be recorded in the future on scrumdesk.com.

10.3.2 Sprint Backlog

The team will be using scrumdesk.com to keep track of the amount of hours worked on certain aspects of the project

10.3.3 Task Breakdown

Task breakdown is all recorded in journals during meeting times.

10.4 Sprint Burndown Charts

Sprint Burndown Chart. Culmination of hours of each day.

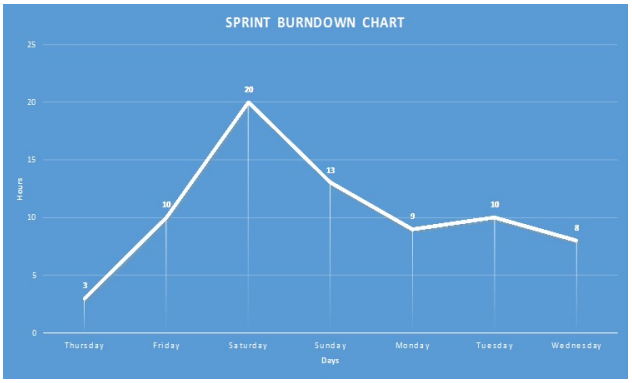

Figure 1: Sprint burndown chart

10.5 Sprint Retrospective

The team will hold a retrospective meeting, write down information in their journal, and a presentation will be created every Thursday before the retrospective presentation on Friday.

10.6 Individual Status Reports

Individual Status Reports are done when the professor decides to check the engineering notebooks.

10.7 Engineering Notebooks

Engineering Notebooks are maintained by each team member. The purpose is to log information discussed in meetings and personal ideas about the project.

10.8 Closeout Materials

The team will deliver the project charter, the SRS, the source code, and binaries to the stakeholders when the project is finished. The user manuals will be distributed to the smart hospital team when the product launches.

10.8.1 System Prototype

Protoypes will be stored on GitHub and presented to stakeholders during the appropiate times.

10.8.2 Project Poster

The project poster will be debated at a later time.

10.8.3 Web Page

The web page will be stored on a UT Arlington server and created at a later time. The purpose will be to provide information about the creation process.

10.8.4 Demo Video

The demo video will be made at a later time.

10.8.5 Source Code

The source code will be maintained on GitHub.

10.8.6 Source Code Documentation

The source code documentation will be stored on GitHub and provide development comments and reference informaiton.

10.8.7 Installation Scripts

The installation scripts will be made at a later time.

10.8.8 User Manual

The user manuals will be distributed to the smart hospital team when the product launches. The manuals will be availble on the website after the product launches.