Hospital Comparison Tool
Purpose of the document

This Inception Report defines the scope of the solution, in compliance with the agreed upon project scope. The Potentia team uses this report to measure the BITS team understanding of initial business requirements. This document will serve as a binding tool between the Client and the Consultant to clarify the scope and units addressed.
Inception Report

Project Name: Hospital Comparison Tool

Date: 12/11/2018
Revision Number: 1
AUTHORS
This document was prepared by:

Jeremy DeVries, Project Manager
Southern Illinois University
Carbondale, IL
(217) 883-2835
jeremyldvrs@siu.edu

Grant Tulacro, Developer
Southern Illinois University
Carbondale, IL
(815) 687-6747
grantulacro0719@siu.edu

Nour Farhat, Developer
Southern Illinois University
Carbondale, IL
(618) 305-5021
noureihoda.farhat@siu.edu

Nick Ramsey, Developer
Southern Illinois University
Carbondale, IL
(618) 969-2497
nicholas.ramsey@siu.edu

Brennan Powers, Developer
Southern Illinois University
Carbondale, IL
() -
brennan.powers@siu.edu
Contents:
1 Background ........................................... 6
2 Project Objective ..................................... 6
3 Project Scope .......................................... 6
4 Project Deliverables (Expected Outputs) ............. 7
5 Project Assumptions and Constraints ................. 7
   5.1 Assumption ...................................... 7
   5.2 Constraints .................................... 7
6 Team Organization .................................... 7
7 Project Management Approach ......................... 8
8 Methodology .......................................... 9
9 Risks Management .................................... 9
10 Detailed work plan .................................. 10-11
   10.1 Major milestones ............................... 10
   10.2 Project Schedule ............................... 11
1 Background
R&B, founded in 2013 by Dr. Shahram Rahimi and M.D. Sean Bozorgzad, set out to improve patient care by means of technological advances and cutting edge research. Later changed to Potentia in 2017, their first goal was to improve the scheduling of Emergency room doctors. This was accomplished by their first software development called “Symphony”, which was released to its first client in 2014. By 2017, Symphony had reached 35 million lifetime hours scheduled at 15% of the hospitals in the US. Their next software “Bernoulli”, aims to improve patient flow using AI simulations. The Hospital comparison tool concept presented in October 2018 aims to used publicly gathered data and present it in an easy to understand format to be used as a marketing tool. This project picked up by “The BITS team” has been initiated and is currently in planning phase. It is set to be released by May 2019.

2 Project Objective
The hospital comparison tool is used to find and compare hospital/emergency room statistics against national/state averages. The tool could help hospital admins recognize their problem areas by using publicly available data. The system also helps Potentia identify how hospitals would benefit from the other tools (Symphony, Bernoulli, etc.) the company uses. The project will create a web application to better visualize comparison data, make data easily searchable (by state, hospital name, etc.), distill complex data into simple charts to provide at-a-glance analysis and highlight problem areas, etc.
Technology to be used: Django, Angular, and PostgreSQL

3 Project Scope
The tasks of the BITS team is to create an easily readable and searchable website that have the ability to compare any Hospital information and metrics to the national average statistics, and provide an overall rating for each hospital in the database.
This task will be accomplished using Django, a free and open source software for quick development of web based programs. Using Django, this website will be connected to the already established SQL database which is home to the data gathered about hospital wait times, etc. The BITS team will also employ the use of AngularJS to construct the overall look and functionality of the website. The use of this web application will be open to clients without the need of credentials.
Documentation will be provided biweekly to Potentia as well as the functioning website set to be delivered by May of 2019.
4 Project Deliverables (Expected Outputs)
The BITS team recognizes that it has to deliver, in hardcopy and softcopy, project deliverables in properly defined timeframe. The following are the main deliverables:

- Easily consumable website design to compare and show stats of different hospitals.
- Inception Report.
- Requirement Specification.
- Software package with source code.
- Project closure report.

5 Project Assumptions and Constraints
The success factors for the on-schedule completion of this project are dependent on certain assumptions and constraints. The following paragraphs describe the assumptions and constraints of this project...

5.1 Assumption
- The group roster will not change
- Potentia will continue to require this project
- Mentors at Potentia will continue with support

5.2 Constraints
- Must be able to complete the project by May 2019
- Minimal room for scope creep
- Resources are available to produce outcome that meets quality expectations

6 Team Organization
The project will have members both from Potentia Technologies and the BITS team. The Potentia team will participate in staff/site facilitation, resource facilitation, information gathering, need analysis, scope definition, change management, report and deliverables review, and overall project management. The
BITS team is responsible for all the activities in all phases of the solution process such as study, design, coding, testing, and deployment of the systems.

6.1 Project Protocols

Stakeholders

The Potentia Team are the project stakeholders.

Contact Lists

The following table provides contact information of the key individuals representing the project stakeholders.

Table 1: Project contact list

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Contact Person</th>
<th>Phone</th>
<th>e-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potentia</td>
<td>Alexander Stephens</td>
<td>618-889-2411</td>
<td><a href="mailto:alex@potentaico.com">alex@potentaico.com</a></td>
</tr>
</tbody>
</table>

6.2 Project Governance Structure

The Potentia Team will work with the BITS team in all phases of customization of the systems. Potentia advises that the BITS team be available all the time at least for the duration of the project phases. Such a team will ensure that the Potentia team can pass knowledge, transfer skills, and share experiences in each phases of the project, such arrangements will ensure project continuity and momentum.

7 Project Management Approach

The BITS team understands the necessity of applying solid and industry standard project management model. In this regard, BITS will use an the Iterative and Incremental management approach which includes three phases:

- Initiating: it authorizes the project
- Executing: it coordinates people and other resources to carry out the plan. The execution phase of the Iterative and Incremental management approach includes: Planning, Requirement Gathering, Design Analysis, Implementation, Testing, and Evaluation.
- Deployment: it formalizes the acceptance of the project or phase and bring it to an orderly end.
8 Methodology

BITS understand the importance of applying an industry standard development methodology that fits our team and project needs. In this regard, BITS will be using the Iterative and Incremental approach of Rapid Application Development. This is chosen due to a need of prototypes and a high risk of scope creep.

9 Risks Management

<table>
<thead>
<tr>
<th>Common Risks</th>
<th>Major Risks</th>
<th>Initial plan to avoid/ handle the risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in personnel</td>
<td>Team members will meet weekly and submit weekly reports to foresee uninterested personnel.</td>
<td></td>
</tr>
<tr>
<td>Poor Communications between project members</td>
<td>Slack and Github accounts have been established, in addition to weekly meetings. If poor communication is detected the issue is to be brought to the team leader’s attention.</td>
<td></td>
</tr>
<tr>
<td>Schedule/plan not realistic</td>
<td>Reestimate each prototype due date as we are working it. If some parts need extra time, the team will adjust the current schedule to fit the plan</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology Risks</th>
<th>Major Risks</th>
<th>Initial plan to avoid/ handle the risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrong/incorrect development leading to redesign</td>
<td>Schedule a meeting with the client whenever a prototype is completed. Keep the client up to date with our plans through GitHub and Slack.</td>
<td></td>
</tr>
<tr>
<td>Critical skills for the project are not found in current personnel</td>
<td>Review the tools needed during the winter break. If more help is needed seek guidance from the potential team.</td>
<td></td>
</tr>
</tbody>
</table>
10 Detailed work plan

10.1 Major milestones

*Table 2: Major milestones*

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Major deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/18</td>
<td>Requirement Analysis Document</td>
</tr>
<tr>
<td>2/1</td>
<td>First Prototype</td>
</tr>
<tr>
<td>2/22</td>
<td>Second Prototype</td>
</tr>
<tr>
<td>3/15</td>
<td>Third Prototype</td>
</tr>
<tr>
<td>4/5</td>
<td>Fourth Prototype</td>
</tr>
<tr>
<td>TBD</td>
<td>System Analysis and Design Document</td>
</tr>
<tr>
<td>Before 3/3</td>
<td>Deployable Software</td>
</tr>
<tr>
<td>TBD</td>
<td>Project Closing Report</td>
</tr>
</tbody>
</table>
10.2 Project Schedule