**CS402**

**A Healthcare Domain Project**

**Project Charter**

**June 1, 2017**

**Version <1.0.0>**

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# Dates:

* Project Start date: 1 June 2017
* Project End date: 20 March 2018

# Project Description:

This project will provide a comprehensive set of solutions focused on making life easier for patients and care takers. It will cover all core processes including managing health records of patients, communication, medication management, inventory and laboratory management. It will streamline processes, optimize flow of information, help doctors, nurses and other care takers make better and quick decisions and equip patients with digital self services. Patients information would be made easily accessible and can be exchanged whenever and wherever it is needed, ensuring secure, fast and better quality of care.

# Budget:

Budgeted $400,000 for hardware and software costs and $700,000 for human resources.

# Project Manager:

Achal Patel, (607)-0000000, apatel58@binghamton.edu.

# Project Scope

* The software involves patient care areas and related support areas within health care facilities like the hospitals, clinics and nursing. Provide reliable automation of existing systems. Identifying required changes to workflows so that they are aligned with best practices.
* Purchasing new servers is out of scope however existing servers may need to be upgraded for better performance and efficiency.
* User – System interaction must be secure. User data must be secure.
* Robust and reliable storage and backup facilities.
* Developing training material and training medical staff.

# Business case

Today health systems around the world need better EHR and financial management. The current system involves lot of unwanted paper work which can be digitized. It is too slow. The expected turnaround times are not met. Excessive delays negatively impact customer (patients/physician/nurses) satisfaction, patient care and finances of the hospitals.

# Project purpose

The purpose of this project is to:

* To offer a seamless experience, with the goal of improving patient’s well-being.
* Improve safety and quality of patient care and services. Increase the productivity and efficiency of healthcare operations.
* To provide better tools for doctors and other care personnel.

# Measurable objectives

* Upgrade existing hardware and develop software in thirteen months.
* Reducing the door-to-doctor time by 60%.
* Improving patient-physician communication.
* Eliminating human errors (e.g. Administrating incorrect doses/combination of medicines, mislabelling blood samples, etc.)

# Requirements:

**Functional:**

* A web based solution which guides the users through the work process using workflows.
* Manage a hospital’s process workflow from admission to discharge of the patient.
* Admin has authority to add/delete users, grant permission to doctors/nurses to generate and view reports.
* Admin also views complaints of patients and takes necessary actions.
* Patients can search for doctors. They can view their health records, lab reports, doctors prescription and medical expenses.
* Centralized management of patients’ medical record.
* All authorized healthcare providers can access a patients’ information.
* The user interface adapts to the user role.
* A decision support system so that physicians spend more time treating the patient by reducing time spent on searches.
* The system should warn any adverse drug reactions and give information on the disease for which patient is diagnosed.
* A system that increases patient participation. Patients can book/cancel their appointments. They can view their own data/ history online. They can post questions online to doctors.
* Streamline common tasks to get jobs done fast.
* Consolidating all balances of a patient into a single statement for easy bill paying.

**Non-Functional:**

* A secure access of confidential data.
* User friendly UI for an easy interface.
* Scalability, testability and maintainability is embedded in the architecture of the software.
* The GUI should be localized.

**Constraints:**

* For the initial release the GUI should be in English.
* Only registered user can access the system.
* System is limited to HTTPS/HTTP.

# Risks:

* Unavailability of a team to resource to obtain requirements by co-ordinating with our potential customers may delay the project deliverables. A possible mitigation strategy might be to schedule regular requirement gathering sessions.
* The team co-ordinating with the end users will need an experienced leader who will work with R&D, customers and the marketing functions. Choosing the right individual is very critical to this projects success.
* The project may fail to maintain its budget.

# Milestones

|  |  |  |
| --- | --- | --- |
| Milestone | Start Date | End Date |
| Project Kick off | 8 June 2017 | 9 June 2017 |
| Requirements Gathering | 12 June 2017 | 9 August 2017 |
| Design phase | 11 August 2017 | 21 August 2017 |
| Development phase | 21 August 2017 | 20 April 2018 |
| Systems Integration testing | 23 April 2018 | 14 May 2018 |
| User Acceptance testing | 15 May 2018 | 14 June 2018 |
| Production environment testing | 15 June 2018 | 29 June 2018 |
| First Release | 2 July 2018 |  |

# Main Project success criteria

All requirements and specifications must be met and tested before the decided date of completion.

# Roles and Responsibilities

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Role | Position | Contact |
| Dipankar Ghosh | Sponsor | CEO | dghosh1@binghamton.edu |
| Achal Patel | Project manager | Manager | [apatel58@binghamton.edu](mailto:apatel58@binghamton.edu) |
| Kishankumar Patel | Team member | Team lead | [kpatel51@binghamton.edu](mailto:kpatel51@binghamton.edu) |
| Tom George | Team member | Test lead | tgeorge9@binghamton.edu |

# Approval Signatures

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| Jim Pitt, Project Client |  | Dipankar Ghosh, Project Sponsor |  | Achal Patel, Project Manager |