Final Presentation - Team #6

CIS280: Professor Huitsing

Machot Lat Thiep

Jeffrey Hager

Alexandria Yeoman

Due Tuesday 2/20/2021

Points: 250

Team Participation:
Jeff Hager: 100%
Machot Lat Thiep: 100%
Alexandria Yeoman: 100%

Screencast URL: https://screencast-o-matic.com/watch/crerh2VVhwD

This assignment is your 'final exam'.
You need to submit three things -
Presentation (Step 1)
Executive Summary (Step 2)
5-7 minute screencast of your findings (Step 3)

Step 1 - Prepare a presentation for the following (100 pts):
ALL the models and analysis work you've completed for your team project
Feasibility Analysis
Project Plan
Requirements Models
Data Flow Diagram
UML/Object Models
Discuss what you know, have learned, and like to learn more of from each model or analysis framework (in the context of your project)
All your graphics, screenshots and related explanations must be readable.

Step 2 - Based on your analysis above, write an executive summary or abstract of the key concepts and ideas you've learned in this class (50 pts)
The paper must be 1-2 pgs long, single-spaced, must use paragraph headings, bulleted, and numbered points. It may include graphics.
It must be a professional technical write up. Please check for spelling errors and grammar before submitting.
Optional - provide current research articles or links if/where appropriate. Cite your references in a bibliography if/where needed.
Draft and/or rough outlines will be assigned half the points.

Step 3 - Present your findings and work, in a 7-minute presentation. (50 pts)
Please create a 5-7 minute team video presentation and submit it.

Upload your work to GitHub and submit your repository link

A few options:
-Hold a Zoom team meeting (it's free for up to 40 minutes, record your 9-10 minutes presentation and submit that recording/ URL).

-Hold a canvas 'cranium cafe' meeting, record a 10 min team presentation session via screencast-o-matic and submit the URL.

-You may have one person represent/record your team presentation, and note the team contribution breakdown.

Please see the videos below and select the option that works best for you and your team. You may need a couple of practice runs first before you record your presentation. After recording, please test the recording link to make sure it is working as expected before submitting it.

Executive Summary

One of the leading causes of hospital readmissions is poor coordination after discharge. This dilemma not only negatively impacts cost, but patient outcomes as well. The project proposed is to mitigate this issue by implementing the Admission Discharge Transfer (ADT) System which will convert patient medical records from being kept on paper files to electronic documentation.

Although the mission is to standardize ADT across all medical facilities, this project will focus on selected facilities in the local area to ensure that the transition is smooth before broadcasting to a larger scale. The project team will be working with three local medical facilities, a hospital, a referral clinic, and a primary care clinic. This team is made up of one member from the IT staff of those facilities. The components of the project include benchmarking, training, implementation, and then re-evaluation of the benchmarking criteria.

Purpose

The purpose of this project is to simplify patient data transfer between departments within a medical facility and other cooperating medical practices.

Problem

The problem that this project solution addresses is that the current system utilizes the documentation of patient records on paper. Paper records are easily lost or misplaced, and can

become unrecoverable in situations or fire, natural disaster, human error, or theft. These records must be faxed or mailed between offices and not only is it unreliable but also gives easy access for breach in Personally Identifiable Information (PII).

Strategic Objectives

The strategic objectives and business requirements that must be supported by the new system are streamlining the management of patient data records, increasing patient data quality, increasing productivity of medical staff and reducing possible data entry errors.

Benefits

The proposed system converts all patient medical records to electronic stored records and introduces a process for medical staff and doctors to become paperless. The ADT system increases patient data record security as you must have two-step authentication to access the electronic records, streamlines patient data transfer between facilities, and increases efficiency of medical staff which allows more time for face-to-face patient care. Medical staff can document patient information directly into the new system.

The benefits of ownership (TCO) include the increased security to patient data records by reducing the need for paper, increasing quality of care, and decreasing hospital readmissions, which according to HealthStream (2020) can cost a hospital up to $26 billion annually.

Transactions

The transactions that the system will process once the new system has been implemented, begin with the medical staff when they intake their patient and make the initial notes and vital signs during patient triage. The process continues when the physician meets with the patient to discuss concerns and the treatment plan. Once the physician has a course of action the system will be utilized again to update the patients' record with any prescriptions and/or referrals. Upon patient discharge the patients' chart will be signed and closed by the discharging physician and an alert will be sent to the patients' primary care physician that they were treated at another facility, as well as an alert to the referral clinic if one was needed. When a separate facility sees a patient, medical staff can send an electronic request for patient data access, which will be approved with proper credentials and need-to-know, and the records will be released electronically to the requesting facility.

Lessons Learned

The medical field has always had many different mediums of transferring patient data but there has never been a set standard. The following points are what we have learned regarding patient data transfer and the ADT system:

- Feasibility Analysis - The breakdown of each section was easy to understand how to determine whether a project is, or is not, feasible to implement.
- SWOT Analysis - This type of analysis made us look at our project from different angles that we did not before. Identifying our weaknesses and how to mitigate them from happening in the future.
- Object Relationship diagram - Seeing the relationship first-hand made it easier to breakdown what responsibilities each entity in the ADT system had.
- Fishbone diagram - This broke down the root cause problem that gave reason for the need of the implementation of this project. You could then not only see the root problem but the bones of that problem individually.

What We'd Like To Know More About

- Total Cost Ownership (TCO) - This entire section was a little fuzzy for each of us. I would like to have a better understanding of this topic and be able to generate a theoretical TCO based on this type of project.

Felix, Holly C, Beverly Seaberg, Zoran Bursac, Jeff Thostenson, and M Kathryn Stewart. "Why Do Patients Keep Coming Back? Results of a Readmitted Patient Survey." Social Work in Health Care. U.S. National Library of Medicine, 2015. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4731880/

HealthStream. "The Economic & Emotional Cost of Hospital Readmissions". HealthStream. 2020. https://www.healthstream.com/resources/blog/blog/2020/06/02/the-economic-emotional-cost-of-hospital-readmissions

Final Presentation
1. Presentation Presentation of models and your project analysis (see assignment details)
2. Executive Summary 1-2 page abstract of key concepts
3. Team Recording 5-7 minute screencast of your project findings
4. Team Presentation Participation Self-report team member assignment participation
6. Submission Criterion 1- Presentation 2- Executive Summary or Abstract 3- Team Presentation screencast URL 4- GitHub repo link/URL