Pan Chen

IST 659

Prof. Huang

9/18/2016

**Project Proposal**

1. **Business description (20 pts)**

As someone who has just been exposed to the information management field for 2 weeks, this assignment posed a great challenge when I first saw it, as I did not know too much about information management nor the database management. However, something did come up my mind when I was chatting with my aunt in California the other day. I remember the times when my cousin and I visited her clinic and waited for her to go to dinner together. She is an acupuncturist with great reputation in Camarillo, CA. Her office hour ends at 6 pm each day, but every time we were there we had to wait her until at least 8:30 so she could finish inputting all the stuff about the patients she saw that day into her computer’s patient records software. I guess I could do something for her to make her life easier with the stuff I am going to learn from this class. Her business clearly belongs to healthcare industry, and she provides acupuncture treatment, cupping treatment, consultation and supplementary Chinese medicines to the patients. Her clinic’s general business function is to treat various symptoms from her patients, and bill them accordingly, which means in most cases, she has to deal with insurance companies.

1. **Problem statement (30 pts)**

Apparently the patient record software my aunt current uses is not too easy to use and not efficient enough. It might have too much functions/options that an acupuncture clinic does not need, so it takes extra time to navigate through these redundant options input each patient’s entry. It might not be too up-to-date to the current insurance policies from various insurance companies so my aunt has to spend extra time to modify each entry. The reason current software is not adequate is it makes my aunt working way too long for a person at her age, and since it is cumbersome and redundant, it might be prone to mistakes. She deserves a better patient record system.

1. **Proposed solution (30 pts)**

I hope I can build a simplistic yet efficient database management program or make a template with an existing software or something to make things easier for her. The main functions include recording patients’ basic information, visit dates, symptoms, treatment codes, insurance companies, the insurance plan/coverage, referral doctors, medicines sold, the total charge for the patient, the payable by insurance companies, the actual out-of-pocket charge for the patients and whether the payment has been received from insurance company and/or the patient. In order not to make things too complicated, I decide not to include the financing part of the business other than insurance billing, including how much did my aunt pay the assistant’s salary, how much did my aunt spend on the medicines and medical equipment and how much money my aunt makes each month, because those data are usually dealt with by an accountant, not a practitioner. The primary business objective is to build a more efficient patient record system, so it would become clearer to track each patient’s situation, and their payments for the provider, and it would be easier to send patients’ related information to insurance companies, and more articulated information for the state medical board to review.

There are several entities in this model that could be easily identified, including Treatment, Insurance, Patient, Appointment, Billing Statement, and Payment.

1. **Users (20 pts)**

My proposed system’s user includes my aunt the business owner, her assistant (the receptionist), insurance companies, State medical boards, the patients, and other parties that require medical records with the consents of the patients. They will not have equal access to the data.

1. For my aunt, the business owner/the doctor: she should have access to all the information.
2. For the assistant, she could get answers of patients’ basic information, insurance company, insurance plan information, referral doctor and all the date and billing related information so she could schedule appoints for the doctor, contact insurance companies and track the payments.
3. For the insurance companies, they could get answers of all treatment and billing related information related to a particular patient.
4. For state medical reviewing boards, they might review all the date and billing related information and the treatments the doctor provides, but not the information that is related to the patients’ privacy.
5. For the patients, they should only be able to get their own set of data when querying the database.
6. For the other parties that require medical records with the consents of the patients, they should only have the access to that particular patient’s information excluding the billing related information.

I will continue to discuss with my very busy aunt about which party should access how much information from the system and keep adding other important information that should have been mentioned to build a complete solution. I apologize for my not-so-professional description of the case due to my limited knowledge of database, please let me know if it is a good starting point to work on. Thanks!