Centralized Health Database

System Request Statement / Planning Phase   
(Homework No.1A)

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Submitted in partial fulfillment of the requirements of the INFT 2303: Systems Analysis and Design course project

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| GitHub repository | https://github.com/ADA-SITE-INFT2303-2022-Spring/systems-development-project-team-10 |
| Version date | Version information |
| 20.02.2022 | Initial draft |
| 20.02.2022 | All the fields filled in |

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| Project sponsor |
| Kanan Gafarov, on behalf of Ministry of Healthcare of Azerbaijan Republic |
| Business Need |
| When it comes to healthcare databases, only recently government clinics and hospitals started implementing online databases. 10-15 years ago, all the diagnoses and treatment were written on paper and kept in warehouses that looked like libraries. People had to wait in queue and wait until a “librarian” would find your documents. And even though now doctors use online database it is inefficient. Since some of the older data is still in the form of paper, have data in 2 different states is difficult to manage. Moreover, there are a lot of private clinics and hospitals that have their own databases and do not have access to each other. |
| Business Requirements |
| 1.This system will require a strong sub-system that will protect the data that will keep the data private, confidential, and safe. Since the database is so large, cyber security department will look after a lot of data and make sure they kept it safe from outside threats. The cyber security department must consist of the best professionals so they can eliminate all the threats by improving weak parts.  2.Ministry of Healthcare must require all private clinics and hospitals to use their database instead of their own one to keep the data up to date so doctors from other institutes can see all possible information about patient’s health. Moreover, those private clinics must share their own databases with existing data about all patients, so the collected data is more complete.  3.All the doctors and pharmacists will have to go through a training to be able to use the system.  4.Intuitive interface for using the database needs to be developed so anyone can use it. Users of this database system  5.Access process needs to be created. Users of the database will be able to access patient’s data only after patient provides his identifying information. For example, a patient needs to provide his FIN code or randomly generated token so the doctor can access his health data. |
| Business Value |
| 1.Knowing all possible information about patient’s health will make doctor’s diagnoses and treatments more precise. Moreover, health care will become more efficient. Since doctors will be able to see all the information about patient, it will be easier for him to do his job. For example, it will be easier to find the cause of the illness or diagnose the patient or the doctor won’t make a mistake when he prescribes treatment because he will be able to see allergies or other illnesses. And those are just some cases where knowing everything about patient’s health will make doctors’ jobs more precise and efficient.  2.Having a centralized data can result in better governance of it (Matthews, 2019). Since there is one centralized database with one standard IT specialists will be able to govern it more easily because they don’t have to deal with the fact that there are many different databases that are all built differently. |
| Special Issues or Constraints: |
| 1.To implement this database Ministry of Healthcare will have to deal with a lot of legal issues first. Creating such database will oblige all citizens to agree to share their personal data with Ministry of Healthcare. Because of that protection of data needs to be ensured.  2.All doctors and pharmacists will need to pass the training where they will learn how to correctly use the system. This process will require a lot of resources and time.  3.Most of the data with information about health of citizens older than 18 are still in the form of paper documents. Since one of the system’s purposes is to store the complete data about each citizen, all the data must be added to the database. Which means that paper documents must be transferred into the database ether by scanning the papers or typing the text manually. This will require a lot of resources. Furthermore, this process will require a lot of time.  4. As it was mentioned in previous point this process will take a long time because there are so man. For instance, in Iceland’s case it took 12 years (Gulcher & Stefansson, 1999).  5.Moreover, a lot of people registered in different private clinics because all the private clinics have their own databases. These databases need to be merged with main database, so it is complete |
| References |
| Gulcher, J., & Stefansson, K. (1999, July). *An Icelandic saga on a centralized healthcare database and democratic decision making*. Retrieved from nature biotechnology: https://www.nature.com/articles/nbt0799\_620  Matthews, K. (2019, November 20). *How Centralized Data Improves the Health Care Industry*. Retrieved from Cyberguard Compliance: https://info.cgcompliance.com/blog/how-centralized-data-improves-the-health-care-industry |