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HIPAA Compliant Database App

CSCI 581

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Motivation

- Secure virtual storage of patient information is a vital concern in our interconnected world.
- Services that offer such storage are often expensive, going as high as 200 USD a month.
- Such a service should be cheaper for those who really need/desire it.

What is HIPAA?

- HIPAA, the Health Insurance Portability and Accountability Act
 - Changed how health care providers had to protect a patient's health information
 - Provides a data and transaction standardization that very few health care providers can sidestep if they bill third parties for services.

HIPAA Privacy Rule

- The HIPAA Privacy Rule inspires our app since it.....
 - Sets boundaries on the use and release of health information
 - Empowers individuals to control certain uses and disclosures of their health information
 - Establishes appropriate safeguards to use when protecting health information

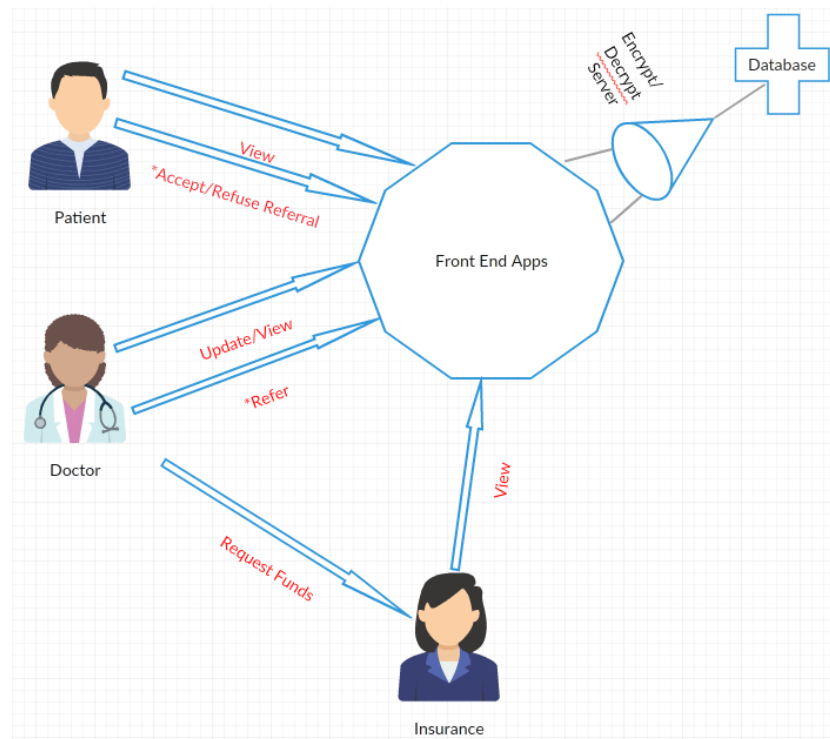
Tools

- Visual Studio (2015 and later)
- C#
- JSON
- Android Studio/ Net Beans
- Amazon web services
- WAMP/XAMPP database

Design

- Create all records for the database
- Create front end apps for Android/iPhone
- Create online database to container

Design Pt. 2



Division of Labor

- ◉ Jared/Mayur – Research HIPAA standards
- ◉ C# development or Java code – Jared and Mayur
- ◉ Jared – implement online database
- ◉ Jared/Mayur – Database/App interface
- ◉ Mayur – Database Encryption
- ◉ Jared/Mayur - Testing

Milestones

- Step 1: System and society requirements and define the modules.
- Step 2: Develop each system module and create the database.
- Step 3: Try to connect the interface between system and database using to test the environment.
- Step 4: Develop the final project module
- Step 5: Project demonstration with the final deployment.

- Step 1: 1 week
- Step 2: 4 weeks
- Step 3: 2 weeks
- Step 4: 1 week
- Step 5: 1 week

References

- 1] [Tariq Alshugran](#); [Julius Dichter](#) , "Extracting and Modeling The Privacy Requirements from HIPAA for Healthcare Applications", [IEEE Long Island Systems, Applications and Technology \(LISAT\) Conference 2014](#), DOI: [10.1109](#)
 - 2] Denis Verdon and Gary McGraw "Risk Analysis in Software Design", IEEE Journals & Magazines, 2004, pp. 79 - 84, DOI: [10.1109](#)
 - 3] Vivying S. Y. Cheng and, Patrick C. K. Hung "Towards an Integrated Privacy Framework for HIPAA-Compliant Web Services" Proc. E-Commerce Technology (CEC'05) 7th IEEE Int. Conf., 2005, pp. 480 - 483, DOI: [10.1109](#)
 - 4] [Annie I. Anton](#), et al., "HIPAA's Effect on Web Site Privacy Policies", [IEEE Security & Privacy](#) - IEEE Journals & Magazines, Vol. 5, 2007, pp.45 - 52, DOI: [10.1109](#)
 - 5] Aaron K. Massey, et al., "Evaluating Legal Implementation Readiness Decision-Making", IEEE TRANSACTIONS ON SOFTWARE ENGINEERING, 2014, pp. 545 - 564, DOI: [10.1109](#)
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Questions ?