



CSE 545: Software Security

Secure Hospital System

Group 09 Weekly Report - 04

Person prepared this report: Kiran Shanthappa on 12pm 15th Feb 2022

Person approved this report: Yash Bhokare on 2pm 15th Feb 2022

Person submitted this report: Yash Bhokare

List of members

1. Yash Bhokare (Group Leader)
2. Kiran Shanthappa (Deputy Leader)
3. Anthony Mac
4. Rajesh Badugula
5. Shashank Baradi
6. Sai Manoja Gadde
7. Karan Naik
8. Bhaskara Atluri
9. Jayanth Gorinta

Meeting Notes

[Feb 11th, 2022 – 04:00 pm] - The agenda of the meeting was to prepare design documentation. Meeting scheduled from 4:00pm to 6:00pm. Understanding the structure of a good design document and forming a consensus for document preparation. Task distribution among team members for design document preparation.

[Feb 12th, 2022 – 04:30 pm] - As per the task distribution from week 3, each team member consolidated their design for document preparation. Final design discussion and review completion.

[Feb 13th, 2022 – 04:00 pm] - Design document review. Task summary describes the individual responsibilities.

Tasks Summary

Task No.	Task Name	Details of Task	Member	Status
1	Research on blockchain	Going through the Hyperledger Fabric tutorial. Understanding blockchain for storing various transactions.	Kiran and Jayanth	Completed
2	ML for malicious login	Researching - prevention of malicious logins using ML. Working on dumping json files onto AWS to get familiarized with API calls	Shashank	Completed
3	Patient web-profile design	Preparing web pages design of patient's login and their profile info.	Rajesh and Karan	Completed
4	Secure Database on AWS	Understanding to host the whole project on AWS server and the possible ways of how we could secure the database.	Jayanth	Completed
5	Wireframes for web pages	Designing the wireframes for all web pages.	Yash	Completed
6	Login auth token	Designing login page auth token.	Yash	Completed
7	Insurance claim design	Research and design of insurance policies and claims.	Bhaskara	Completed

8	Database ER and class Diagram	Prepare the ER diagram in relation to the database and tables requirement.	Anthony and Manoja	Completed
9	Database scripts	Prepare SQL scripts to create the database and tables.	Manoja and Anthony	Ongoing
10	Database Connection API	Implementation of APIs for interaction of JWT authentication support with database.Hosting of application layer over cloud.	Bhaskara, Shashank	Ongoing
11	Two Factor Authentication design	Designing the two-factor authentication flow between the web and app tier, with the possibility to store the OTP in the database.	Yash	Completed
12	Hyperledger on AWS	Research on hosting the Hyperledger block chain on AWS.	Kiran	Ongoing
13	Design Document	Preparation of design document. Each member prepares a system design diagram and details for the components under their responsibility. (Sub-divided under task summary)	Team effort	Completed
14	Database Connection API	Implementation of APIs for interaction of application with database.	Yash	Ongoing
15	Web-profile design	Implementing multiple web pages for the front-end.	Rajesh and Karan	Ongoing

Task Progress

Task Name	Member	Date of Review	Reviewer (s)	Review Conclusion	Recommended Action
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Insurance claim design	Bhaskara	Feb 11 th , 2022	Jayanth	Satisfactory	
Secure Database on AWS	Jayanth	Feb 11 th , 2022	Kiran	Satisfactory	
Database Design	Anthony and Manoja	Feb 11 th , 2022	Group Review	Satisfactory	
Research on blockchain	Kiran and Jayanth	Feb13 th , 2022	Group Review	Satisfactory	
ML for malicious login	Shashank	Feb13 th , 2022	Karan	Need work	Design requires more elaboration.
Patient web-profile design	Rajesh and Karan	Feb13 th , 2022	Group Review	Satisfactory	
Login auth token	Yash	Feb13 th , 2022	Shashank	Satisfactory	
Insurance claim design	Bhaskara	Feb13 th , 2022	Rajesh	Satisfactory	
Database ER and Class Diagram	Anthony and Manoja	Feb13 th , 2022	Group Review	Satisfactory	
Two Factor Auth design	Yash	Feb13 th , 2022	Group Review	Satisfactory	
Design Document - Document preparation, architecture diagram and blockchain	Kiran	Feb13 th , 2022	Group Review	Satisfactory	
Design Document - Wireframe, Secure login and Data flow diagram	Yash	Feb13 th , 2022	Group Review	Satisfactory	
Design Document - Use case and Misuse case diagram	Rajesh and Bhaskara	Feb13 th , 2022	Group Review	Satisfactory	

Design Document - Sequence diagram	Jayanth, Karan, and Shashank	Feb13 th , 2022	Group Review	Satisfactory	
Design Document - Test Strategy	Manoja	Feb13 th , 2022	Group Review	Satisfactory	
Design Document - Malicious login and JWT token	Shashank	Feb13 th , 2022	Group Review	Satisfactory	

Issues

1. Difficulty in creation of integration points for new technologies such as block chain and hosting individual components on AWS.
2. Managing project work has become difficult, as mid-term exams are near.
3. Consolidation of the design requires additional team meeting hours to interact and communicate with team members.
4. Some of the security techniques are theoretically understood. Hence, can face difficulty during implementation.
5. Organization of the work due to interdependencies of different components.

Gantt chart

