CSE 545: Software Security

Secure Hospital System

Group 09 Weekly Report - 06

Person prepared this report: Kiran Shanthappa on 11am 01st Mar 2022

Person approved this report: Yash Bhokare on 2pm 01st Mar 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 25th, 2022 – 04:00 pm] - The agenda of the meeting was to see the implementation progress. Meeting scheduled from 4:00pm to 5:00pm over zoom. Progress of the week was discussed and some of the pain points addressed. Update from backend team: Shashank hosted sample database on cloud and tested the API's. Bhaskara looking iinto hosting apache web server on aws.

[Feb 25th, 2022 – 04:30 pm] - Update from the database team: Manoja faced some issues with the hosting of the database on AWS so have to work on fixing that or trying other ways. Update from front-end team: Karan finished with patient, doctors, insurance and report pages. Currently integrating these pages.

[Feb 25th, 2022 – 04:45 pm] - Update on hyperledger: Kiran created VPC and EC2 instances for creating nodes for hyperledger. Update on integration team: Yash completed the login page with authentication services at the front end. Working on integration with the backend team.

Tasks Summary

Task No.	Task Name	Details of Task	Member	Status
1	Hosting DB on AWS	Hosting of the PostgreSQL database on cloud	Anthony and Manoja	Ongoing
2	ML for malicious login	Preparation of dummy data	Anthony and Manoja	Ongoing
3	Login and Registration	Implementing the login and patient registration web page	Rajesh	Ongoing
4	Implement Hyperledger on AWS	Implementation of Hyperledger on AWS. Creating network, peer, ordering service.	Kiran	Ongoing
5	Hyperledger client API	Implement client API to connect and send transactions to the Hyperledger blockchain.	Jayanth and Kiran	Ongoing

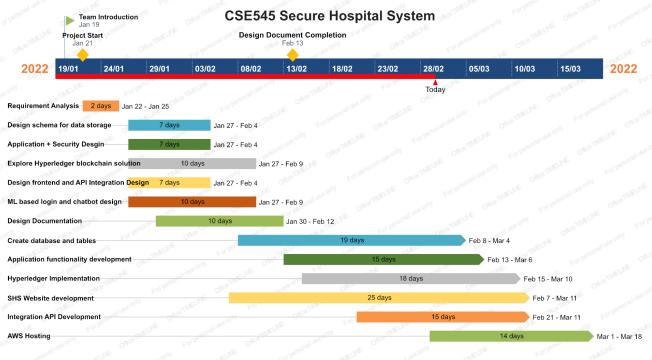| 6	JWT Authentication with roles	Implementation of APIs based on Spring-boot for interaction of JWT authentication with database. Creating new roles for the same.	Bhaskara, Shashank	Ongoing
7	Insurance Web page	Build Insurance web page for claim request and approval	Karan	Ongoing
8	OTP with email	For two-factor authentication build API to send OTP via email.	Bhaskara	Ongoing
9	Database Connection API	Implementation of APIs for interaction of application with database.	Yash	Ongoing
10	Web-profile design	Implementing multiple web pages for the front-end.	Karan	Ongoing
11	Hosting application on AWS	Hosting the backend code on cloud as well for integrating and testing with the front-end. Host sample database on cloud and tested the API's.	Shashank	Ongoing
12	Login Authentication	Login page with authentication services at the front end.	Yash	Ongoing
13	Malicious Login	Develop ML based malicious login	Bhaskara	Ongoing

Task Progress

Task Name	Member	Date of Review	Reviewer (s)	Review Conclusion	Recommended Action
Role based dashboard	Karan	Mar 01st	Yash	Satisfactory	

Issues

1. Difficulty in creation of integration points for new technologies such as block chain and hosting individual components on AWS.
2. AWS provides managed hyperledger as a service. But this is not free. Hence we have to host EC2 and create the Hyperledger network manually. Establishing a connection on multiple instances could be challenging.
3. Managing project work has become difficult, as mid-term exams are near for many of the team members.
4. Organization of the work due to interdependencies of different components.

Gantt chart

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