Logbook

Week 1: Introductory lecture to PBL-II [10/01/2023 & 13/01/2023]

Our project coordinator, Prof. Sarita Rathod briefed us about PBL-II. She provided us the project outlines and also asked the students to create new groups or continue with developing on top of previous projects. We decided to keep the same group but choose a new topic for the project.

Week 2: Topic Discussion [17/01/2023 & 20/01/2023]

Discussed our topic with our guide, Prof. Prashant Sawant about the technologies that we are going to use and decided to have a topic related to networking and log management. Networking and security was the initial focus.

Week 3: Topic Selection [27/01/2023]

Topics were discussed with the guide which had to be presented in front of a panel. All considered topics were presented and adequate feedback was received from the panel about the topics.

Week 4: Topic Finalisation [31/01/23 & 3/2/23]

The topic of “Log monitoring of E-commerce website using ELK Stack” was finalized after extensive discussion with our guide and also inner discussion within the group members.

Week 5: Literature Survey [7/2/23 & 10/2/23]

We studied numerous IEEE research papers on discussed and even other related topics to get a better understanding of the topic domain. Our main focus was to learn about centralized log management.

Week 6: Technology Usage [14/2/23 & 17/2/23]

After discussion with the project guide we decided to implement log management using the popular ELK Stack. The frontend was decided to be an e-commerce website made using HTML & CSS.

Week 7: Frontend Work [28/3/23 & 3/3/23]

Work on the frontend was started with early concepts for the format and design of web pages. We decided to sketch up ideas for design first before starting on implementation. We also started preparing for the second panel presentation.

Week 8: Panel Presentation-II [10/3/2023]

The first concepts of the frontend were implemented. The topic was presented thoroughly at the second panel presentation. We showcased the early design concepts and theory of the final working model in the presentation. We also included the literature surveys studied.

Week 9: Post-panel presentation changes [14/3/2023]

The panel brought us a lot of feedback and constructive criticism for us to work on. We considered the thoughts of all panel members and also discussed them with our project guide. We continued with improving the frontend and started with the implementation of the ELK stack.

Week 10: INTECH presentation [21/03/23 & 24/03/23]

We participated in the INTECH National level poster cum project competition organised by the Institute of Engineering and Technology (IET). We made the poster required and also made a demonstration video of the project. We presented our project to the panel members and received their feedback.

Week 11: Complete Implementation of the frontend and ELK [28/3/23 & 31/3/23]

We completed the full implementation of the discussed frontend using HTML, Javascript and CSS. The ELK Stack was implemented on the frontend website. The website was hosted on NGINX server and the logs generated by the server were all sent to the stack where they were visualized in an abstract manner.

Week 12: Testing and Debugging [3/4/23]

The final week consisted of making minor changes to the frontend of the website, making required changes and improvements based on all feedback received to make the project ready for the final presentation. The dashboard also got minor adjustments to improve it and make it more readable. We implemented many canvas and dashboards in Kibana and tested the dashboards with all the log data.

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The ELK Stack was implemented on the frontend website. The website was hosted on NGINX server and the logs generated by the server were all sent to the stack where they were visualized in a abstract manner to be better understood by the user. We implemented many canvas and dashboards in kibana and tested the dashboards with all the log data transmitted into the stack carried by the beats component. The dashboard shows the server log data in a abstract format.

Week 13: Testing Project [11/4/23]

We implemented many canvas and dashboards in kibana and tested the dashboards with all the log data transmitted into the stack carried by the beats component. The dashboard shows the server log data in a abstract format.

Week 14: Finalizing the project [21/4/23]

The final week consisted of making final changes to the frontend of the website, making required changes and improvements to make the project ready for the final presentation. The dashboard also got minor adjustments to improve it and make it more readable.