Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:

PS Code: 1463

Problem Statement Title: Establishing a Server log system for E-governance with appropriate notification and content based classification of log AICTE

Team Name: Bit Bandits 06

Team Leader Name: Nilanjan Ghosh

Institute Code (AISHE): U-0369

Institute Name: Pondicherry University

Theme Name: Miscellaneous

Idea/Approach Details

➢ **Implementation and Analyzing of Server's log files into the Web Application and it's Visualization.**

1. **Log Management Infrastructure**: Establishing a comprehensive log management infrastructure encompassing log collection, storage, and retention, ensuring compliance.

2. **Log Analysis and Monitoring:** Implementing advanced log analysis, real-time monitoring, and alerting for proactive issue identification and resolution.

3. **Integration and Automation:** Enabling seamless integration with other systems through APIs for server provisioning, patch management, configuration control, and load balancing.

4. **Visualization, Reporting, Machine Learning, and AI Chatbot:** Creating intuitive dashboards and reporting tools for log data, integrating machine learning for predictive insights and employing an AI chatbot for quick search, summarization, and context-aware insights.

5. **Security, Compliance, and Performance Management**: Ensuring server and data security through logging, auditing, and backup strategies. Additionally, use logs for monitoring and performance management, optimizing resource allocation, and load balancing. Implement alerting and notifications for critical events.

Server Log System

TECHNOLOGY STACK :

➢ React Tailwind Mongo DB Node JS Python

MySQL php
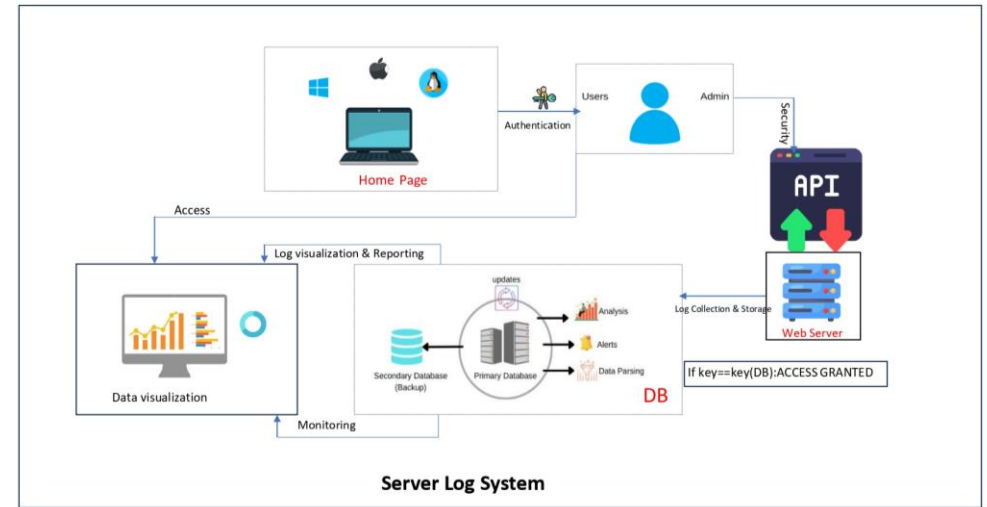
Idea/Approach Details

Use Cases

- **E-Governance:** Enhance government efficiency and transparency.

- **Education:** Support online learning platforms for better student engagement.

- **E-Commerce:** Optimize websites to boost conversions and user experiences.

- **Cybersecurity:** Identify and mitigate security threats in real-time.

- **Healthcare:** Maintain HIPAA compliance through secure data logging.

Show stopper

- **Real-Time Dashboards:** Interactive, real-time insights for decision-makers.

- **Predictive Analytics:** Anticipate trends in performance, security, and user behavior.

- **Machine Learning Integration:** Automatic anomaly detection and personalized insights with AI chatbot.

- **Scalability:** Seamlessly handle increasing workloads.

- **User-Friendly Design:** Intuitive interface accessible to non-technical users

Team Member Details

Team Leader Name: NILANJAN GHOSH

Branch :MCA   Stream :CSE   Year:II

Team Member 1 Name: AKASH KUMAR

Branch :MCA   Stream :CSE   Year : II

Team Member 2 Name: PRASAD INDRAJIT SATYENDRA

Branch :MCA   Stream :CSE   Year : II

Team Member 3 Name: TAPAS RANJAN PATRA

Branch :MCA   Stream :CSE   Year : II

Team Member 4 Name: ANJALI KUMARI

Branch :MCA   Stream :CSE   Year : II

Team Member 5 Name: HITESH BEMAL

Branch :MCA   Stream :CSE   Year : II

Team Mentor 1 Name: Dr. V. Uma

Category (Academic/Industry): Academic   Expertise (AI/ML/Blockchain etc): Machine learning,   Domain Experience (in years): 15

Deep learning, Knowledge representation and reasoning and Sentiment Analysis

Team Mentor 2 Name: Dr. T. Sivakumar

Category (Academic/Industry):Academic   Expertise (AI/ML/Blockchain etc): Data Communication   Domain Experience (in years):   5

Networks, Network Security, MANET and VANET.