CAPSTONE BIWEEKLY LOGS

Name:	ONG JIA EN, DARRYL	Time Period [Start date – End date]:	01/09/25-10/04/26
Student ID:	**2301402**	Log Period:	Trimester 1/ Week 5 & 6
Company:	WizVision Pte. Ltd		

*Provide concise 1-2 lines for each of the sections highlighted in yellow below (**do not exceed 1 page**)*

Problem Tackled

Batch jobs in enterprise systems are often created and left running without regular monitoring. This leads to forgotten, redundant, or silently failing jobs over time. This capstone project aims to develop a Batch Job Lifecycle Monitor – a rules-driven system that tracks, classifies, and alerts on batch jobs to improve reliability, governance, and efficiency.

Task(s) and Action(s)

- Set up the complete development environment: Spring Boot (backend), Vue.js with Bootstrap (frontend), and PostgreSQL with Flyway for database management running on Docker
- Integrated Quartz scheduler with Spring Boot and created dummy jobs to verify scheduling functionality
- Implemented backend services and a reusable BaseQuartzJob class for job execution handling
- Configured dynamic scheduling where Quartz reads job data and CRON expressions from the database
- Developed frontend job management page with “Run Now” and “Edit” functions, with live table refresh
- Faced and resolved frontend issues with edit pop-up and ensured CRON changes correctly updated next trigger times
- Researched rule engine design, planned database partitioning and cleanup strategy, and prepared initial migration script

Result(s) and Learning(s)

- Completed end-to-end setup for backend, frontend, and scheduler integration
- Strengthened full-stack development skills and backend code modularity
- Gained hands-on experience in Flyway migrations and database structuring
- Learned to manage front-end reactivity and data synchronization effectively
- Established groundwork for implementing the upcoming rule evaluation engine

Future Tasks

- Design database schema for rule metadata and violation logs
- Develop rule configuration UI and integrate with backend services
- Implement the rule engine and define rule evaluation logic
- Set up periodic cleanup for old log data
- Conduct initial testing on rule execution and job lifecycle classification

☒ I acknowledge that I have got approval from my Industry supervisor before submitting the logs and there is no sensitive information in this log.

Student’s signature 

Date: 09/10/25