Individual Work Log

PROJECT NAME:			
STUDENT NAME:	Dang Khoa Le		
STUDENT ID:	103844421	WEEK # (& dates covered):	#4 (24-28 / 03)

TASKS	STATUS	TIME SPENT	ACTION ITEM/NOTE
Prepared Week 4 Presentation content (Problem Statement, Technical Scope, System Architecture)	Completed	2 hours	Presented in Team Meeting
Research and identification of dataset sources for predictive maintenance	Completed	1 hours	Selected and downloaded 4 datasets for experimentation
Organized and attended team meeting for project and solution planning	Completed	0.5 hours	Discussed solution strategy, clarified roles
Assigned presentation and planning tasks to group members	Completed	0.5 hours	Delegated based on expertise and interest
Reviewed model architectures and discussed integration	Completed	1 hours	Explored use of Random Forest, LSTM, Isolation Forest models
Collaborated on "Team and Project Planning" assignment	Completed	0.5 hours	Finalized shared document and delegated writing duties
TOTAL WEEKLY TIME SPENT		**5.5 hours**	

TASKS PLANNED FOR NEXT WEEK	EXPECTED COMPLETION
Begin preprocessing and EDA on selected datasets	Having initial outcome
Initial Data Collection Test Runs on Vehicle	Have some successful trial
Finalize specific predictive model architecture	Identify the solution (finetuning, data selection+integration)
Set up Google Colab + Drive integration for data workflows	Successful deployment
Develop prototype of the data ingestion and analysis pipeline	Successful deployment

Summary/weekly reflection for Week #:

-key tasks done / things attended
This week, our team delivered the first major presentation outlining the project plan, including the problem statement, technical scope, and system architecture, all of which I contributed to and authored in the submitted EAT40005.pdf document. We also conducted an in-depth review of potential datasets suitable for our predictive maintenance project, securing a solid foundation with four relevant and high-quality datasets.

-key things learned about Engineering Technology projects
I learned the importance of strong early-stage planning and how clearly articulating the scope and problem statement can enhance project direction. Working collaboratively also demonstrated the value of shared responsibilities and how early role clarity can prevent confusion later.

-any literature read and key things learned
I examined the Scania Component X dataset's accompanying paper, which deepened my understanding of multivariate time series modeling in real-world industrial environments. I also reviewed project-based academic practices on predictive maintenance, including anomaly detection techniques and survival modeling. Beside, I also take a look and running experiment on other 3 datasets (vehicle-maintenance-data.zip, automotive-vehicles-engine-health-dataset.zip, cars_hyundai.csv)

-Issues/problems
Datasets are different in format and deliverability (what are their specific purposes).