INDUSTRY VISIT TO TM ONE

Morning session

Summary

As students from the Bachelor of Computer Science in Data Engineering program at UTM, our industrial visit to TM One and DreamEdge on 26th June 2024, guided by Dr. Iqbal Tariq for our special topic courses, was a unique opportunity to bridge academic theories with real-world applications. This visit allowed us to gain firsthand insights into the innovative use of data engineering across different industries, enhancing our understanding and appreciation of our field of study. TM One, a leader in digital transformation, showcased their extensive range of cloud services and the pivotal role they play in modernizing industries.

Technologies and Issues Discussed in the Visit

- 5G Applications: The implementation of 5G technology was a standout topic. TM One is at the forefront of deploying 5G networks in Malaysia, which promises to revolutionize connectivity, enabling faster data transmission and supporting the Internet of Things (IoT).
- Cloud Services: TM One's cloud infrastructure is designed to support businesses of all sizes, ensuring scalability, security, and efficiency. Their solutions are integral for enterprises looking to migrate to cloud-based operations.
- Data Engineering: We explored the data engineering frameworks employed by TM One, which are critical in managing and analyzing vast amounts of data generated daily. This includes data storage, processing, and real-time analytics.

Reflection

As a group, we learned the importance of data engineering in driving digital transformation. The hands-on experience with TM One's cutting-edge technologies provided valuable insights into how data engineering principles are applied to solve real-world problems. We understood how cloud services are crucial for modern enterprises and how 5G technology will change the landscape of connectivity. The session reinforced the critical role data engineers play in ensuring the seamless operation of digital services and how our skills can be applied in these contexts.

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INDUSTRY VISIT TO DREAMEDGE

Afternoon session

Summary

In the afternoon, we transitioned to the exciting world of automotive engineering at DreamEdge. DreamEdge focuses on several types of innovation, from product and process innovation to business and service innovations. As a recognized R&D status company by the Malaysian Investment Development Authority (MIDA), DreamEdge is committed to developing cutting-edge technologies. This visit highlighted the intersection of data engineering and mobility solutions, showcasing the innovative approaches used in automotive design and manufacturing by DreamEdge.

Technologies and Issues Discussed in the Visit

- Data Analytics & Machine Learning: DreamEdge leverages data analytics and machine learning to optimize design processes, predict maintenance needs, and improve overall vehicle performance. These technologies are integral to developing smarter, more efficient vehicles.
- Vehicle Prototypes: DreamEdge is pioneering the development of various vehicle prototypes. Their use of advanced simulation technologies and virtual reality (VR) for design and testing is revolutionizing automotive engineering.
- Automated Machines: The design and deployment of automated machines in manufacturing were fascinating. These machines enhance precision, reduce human error, and increase production efficiency.

Reflection

As data engineering students, we were inspired by how data engineering is shaping the future of the automotive industry. We learned about the integration of data analytics and machine learning in automotive design, and how these technologies are transforming vehicle development and manufacturing processes. This experience emphasized the relevance of our academic knowledge in practical, industry-specific applications. Seeing the practical use of advanced simulations, VR, and automated machines broadened our understanding of the potential impact of data engineering in various sectors, encouraging us to pursue innovative projects and research in our studies.

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