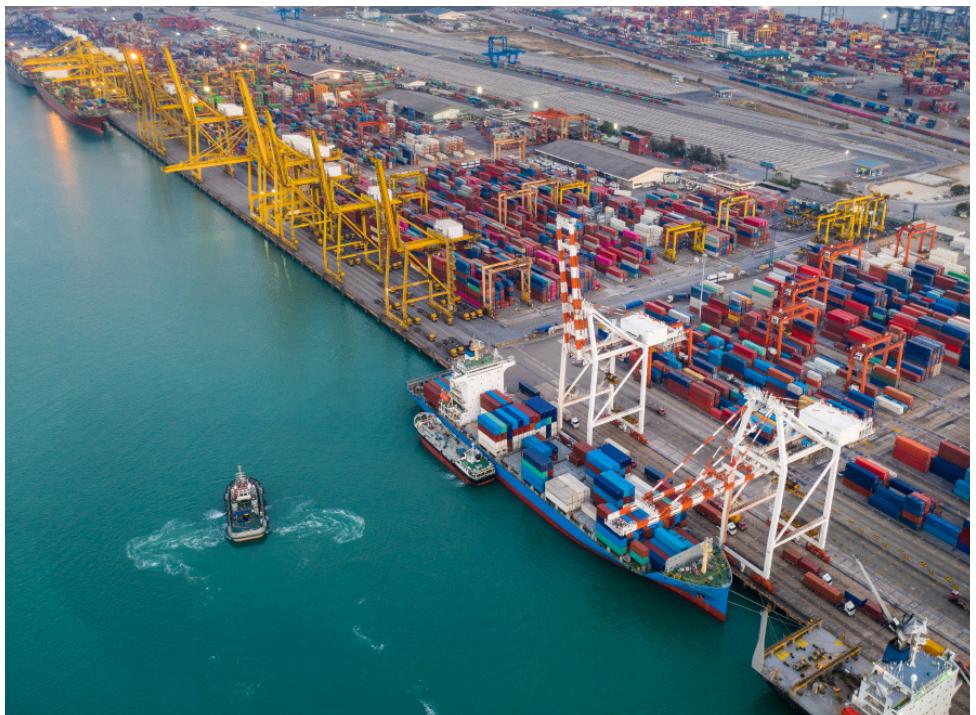# JOHOR PORT BERHAD

08 January 2026

PROGRAM OUTLINE

Date : 08 January 2026

Destination : Jalan Pasir Gudang, Kawasan Perindustrian Pasir Gudang, 81700 Pasir Gudang, Johor Darul Ta'zim

Timeline :
12:00 pm : Attendance taking and departure to Pasir Gudang
1:45 pm : Arrive and perform Zuhur prayer at JohorPort surau
3:00 pm : Briefing on JohorPort by the management team
3:30 pm : Visit to the operational site
5:30 pm : Departure back to UTM skudai

SUMMARY

On a recent industry visit to Johor Port Berhad, students were given a comprehensive look into technical infrastructure that power's one of Malaysia's most vital logistics hubs. The session included a keynote presentation delivered by En.Mohamad Taufiq Abdul Razak (IT Manager) and Tn Hj Badrul Hisham Abdul Halim (Head of Infrastructure). The speaker highlighted how integrated IT systems are essential business drivers that manage large-scale data flows, ensure high-level network security, and maintain operational efficiency across the terminal.

To manage the complexities of a modern port, the ICT department is organized into four main pillars:

Infrastructure
The Infrastructure pillar is the foundation of the port's connectivity. They manage broadband networks, integrate 4G LTE, and maintain servers and hardware in the Data Center and Data Recovery Center. Their work ensures all digital systems run smoothly and reliably, keeping the port operational at all times, even in the challenging coastal environment.

Business Application
The Business Applications pillar takes care of the port's important software systems, like CATOS and JPBI, which help track cargo, manage shipments, and organize daily operations. The team uses data analysis and low-code development to turn slow, manual tasks into faster, automated workflows. Their work helps the port process ships and trucks efficiently, reduce mistakes, and keep cargo information accurate. In short, this pillar acts like the "brain" of the port, making sure everything runs smartly and smoothly.

Project & Governance
Project and governance is how a team plans and organizes work while following rules and policies. An (ISMS) based on ISO/IEC 27001 supports this by protecting important information, setting security rules, and managing risks.

Admin & Helpdesk
Admin & Helpdesk are parts of IT support. ICT Administration manages and maintains IT systems like computers and software to keep them running smoothly while ICT Helpdesk helps users fix problems with their computers, or other IT tools.

Nurin Natasha binti Ramly
A25CS0329

Nurul Iman binti Mohamad Zakry
A25CS0131

Nurul Hafizzah binti Mohamad Rseli
A25CS0334

Sharifah Nadiah Balqis binti Syed Mohd Yusof
A25CS0347

THE TECHNOLOGIES AND ISSUES

APPLICATION DEVELOPMENT

Johor ports employ a flexible approach to application development, utilizing both low-code platforms and traditional programming methods. Low- code platforms are primarily used to develop internal workflows and business process applications, which enable faster development and greater flexibility. Traditional programming is more complex and involves core systems that support strategic backend operations, ensuring system stability and scalability.

JPBI

JPBI serves as the main portal for accessing Johor Port's operational systems. It integrates applications for container terminals, bulk and break bulk terminals, and marine services, which provides the users with a single, unified platform to support efficient and seamless port operations.

DATA ANALYSIS & REPORTING

Data analysis plays an important role in supporting management decisions at Johor Port. The operational and business data are presented in a clear and nice visual format, allowing top management to quickly view key performance indicators, which ensure timely decision-making.

METROCLUSTER SOLUTION

The MetroCluster solution is a high availability system used to ensure continuous operations by connecting two or more data centers located in different geographical areas. If there is a system failure or disaster at one site, operations can be automatically switched to another site without significant downtime. This solution is significant for port operations, as it ensures that essential systems such as cargo management, vessel tracking, and communication services remain available at all times.

DATA CENTER AND DISASTER RECOVERY

The data center stores and manages critical operational data using secure servers, stable network infrastructure as well as controlled environments to prevent system failures. Disaster recovery measures such as regular data backups, data replication to secondary sites, and predefined recovery procedures are implemented to minimize downtime during unexpected events such as cyberattacks, power outages, or natural disasters.

REFLECTION

Nurul Iman

My visit to Johor Port Berhad was an inspiring experience that showed me how vital IT professionals are to the maritime industry, revealing exciting career opportunities where technical skills in infrastructure and application development are used to manage real-world industrial operations.

Nurin Natasha

This industry visit provided an exposure to a real world applications of technology in a large scale operations. This experience definitely enhanced my interest in cybersecurity field as well as motivate me to develop technical skills that relevant to the industry which essential for my future career.

Sharifah Nadiah Balqis

The visit to Johor Port exposed me to how innovation and ICT are applied in a highly secure industrial environment. The advanced security systems and continuous monitoring processes highlighted the importance of technology in ensuring safety, efficiency, and smooth port operations. This experience increased my appreciation of how technological innovation supports human life by protecting critical infrastructure and enabling reliable services for businesses and society.

Nurul Hafizzah

This visit gave me a clearer example of how technologies can affect the world especially in port business. I also learned that the computer science field will be a high demand job in the future as technologies continue to advance. This makes me feel proud and relieved as I will have a lot of job opportunities in the future.

References
(n.d.). https://www.charterlink.com.my/data/cms/images/marine.jpg

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