| PROJECT | Project Name | Project No. | Project Manager |
|-----------|---|-------------|-----------------|
| OVERVIEW | Intelligent Curtain Wall System Architecture, Operation | 2 | Jishen Lin |
| STATEMENT | and Maintenance, and Dataset Management Platform | | |

Problem / Opportunity

With the growing demand for intelligent building management, intelligent curtain wall systems face challenges in data management, stability, and security. This project leverages cloud storage (e.g., AliCloud OSS) and containerised deployment (e.g., Docker) to enable efficient data management, automated operation, and secure processing, enhancing building performance and reducing costs.

Goal

This project supports the continuous iteration and expansion of the project by building an intelligent curtain wall back-end system, integrating data set management and server operation and maintenance functions to ensure efficient data storage, secure access and stable system operation.

Objectives

- 1. Building an intelligent curtain wall back-end system based on cloud storage and containerization.
- 2. Enable efficient dataset uploading, downloading, and access management.
- 3. Implement CI/CD pipelines for automated deployment and maintenance.
- 4. Provide data encryption, access control, and automated backup.
- 5. Design a scalable architecture to support large-scale data processing.
- 6. Optimize resource allocation to enhance system performance and stability.

Success Criteria

- IR &AC: The system is able to handle more concurrent requests, support more business orders, and speed up data processing to improve overall operational efficiency. Reduces manual intervention through automated operations and maintenance, optimises server resource allocation, improves storage utilisation and reduces long-term operating expenses.
- 2. IS: Strengthen data encryption and access control mechanisms to ensure stable system operation and to speed up the response time for user access and data retrieval.

Assumptions, Risks, Obstacles

- 1. Assumptions: Smooth integration of new technologies, team has implementation capabilities.
- 2. Risks: Technical failures, cloud service outages, staff turnover.
- 3. Obstacles: System incompatibility, regulatory restrictions, cultural resistance.
- 4. Management Challenges: Uneven resource allocation, poor cross-department communication.
- 5. Cultural Challenges: Resistance to change, low collaboration efficiency.

| Prepared By | Date | Approved By | Date |
|---------------------------------------|------------|-------------|------------|
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