Data Warehousing with IBM Cloud Db2 Warehouse

Phase 1: Problem Definition and Design Thinking

Problem Definition:

In this phase, we aim to define the problem statement clearly. Understanding the problem is essential before proceeding with the design and implementation of a data warehousing solution with IBM Cloud Db2 Warehouse. The problem statement should encompass:

- A description of the current data management challenges.

- The business goals and objectives that can be achieved through data warehousing.

- The scope of data to be stored and managed.

- Specific pain points, inefficiencies, or limitations in the current data handling processes.

Design Thinking:

Design thinking is an essential approach to guide our project. It involves a structured process to innovate and design solutions. Here are the key steps we will take:

1. Empathize: Understand the needs and pain points of stakeholders involved in data management, including data analysts, business users, and IT administrators. Conduct interviews and surveys to gather insights.

2. Define: Clearly define the problem based on the information gathered during the empathize phase. Create a problem statement that highlights the challenges and opportunities.

3. Ideate: Generate ideas for the data warehousing solution. This could include deciding on the architecture, data sources, ETL (Extract, Transform, Load) processes, and data modeling techniques.

4. Prototype: Develop a prototype or a high-level design of the data warehousing solution. This should include the structure of the Db2 Warehouse, data flow diagrams, and an outline of the tools and technologies to be used.

5. Test: Test the prototype with a small set of data to ensure that the chosen design is feasible and aligns with the project goals.

6. Iterate: Based on the feedback from testing, iterate on the design to make improvements and refinements.

7. Implement: Once the design is finalized, proceed with the actual implementation of the data warehousing solution using IBM Cloud Db2 Warehouse.

8. Document: Throughout the design and implementation process, maintain detailed documentation, including data models, ETL scripts, and configuration settings.

9. Evaluate: Continuously monitor and evaluate the performance of the data warehousing solution to ensure it meets the defined objectives.