Lake House

1) What all be created when we create lake house?

When we create a lake house, following are created along with it

1. Lakehouse storage, which is a one lake storage, which is unified storage in Fabric
2. Tables
3. Files
4. SQL End point
5. Notebooks
6. Pipelines
7. Dataflows
8. Shortcuts

All these are also created along with lake house.

2) What is the difference between lake house and Datawarehouse?

Feature	Lakehouse 🏠 💧	Data Warehouse 🏢 📊
Definition	A hybrid of a data lake and a data warehouse, supporting structured & unstructured data.	A centralized repository optimized for structured data and analytics.
Storage Format	Stores data in **open formats** (Parquet, Delta Lake) with ACID transactions.	Uses **proprietary formats** like columnar storage (e.g., Vertica, Snowflake, Synapse).
Data Types	Supports **structured, semi-structured, and unstructured** data (JSON, CSV, videos, images, etc.).	Primarily supports **structured** and semi-structured data.
Processing Engine	Uses **Spark-based processing** (Databricks, Fabric, Synapse) for big data analytics.	Uses **SQL-based processing** optimized for BI and reporting.
Schema Enforcement	Supports **schema evolution**, allowing flexible data changes.	Uses **strict schema enforcement**, requiring structured data before loading.
Performance Optimization	Uses **Delta Lake caching, indexing, and partitions** for performance tuning.	Optimized for high-performance **SQL queries, indexing, and materialized views**.
Use Cases	Ideal for **big data processing, AI/ML workloads, streaming analytics**.	Best for **business intelligence (BI), reporting, and structured analytics**.
Compute Engine	Uses **distributed compute engines** (Spark, Synapse, Fabric).	Uses **MPP (Massively Parallel Processing)** SQL engines (Synapse, Snowflake).
Cost Efficiency	More **cost-effective** as it separates compute from storage.	More **expensive**, as storage and compute are tightly integrated.
Integration	Easily integrates with **big data frameworks** (Apache Spark, Data Factory, etc.).	Integrates well with **BI tools** (Power BI, Tableau, Looker).