Q1: What is Online Transactional Processing (OLTP)?

A1: A class of software that allows many database transactions in real time, typically using the internet

Q2: What is Online Analytical Processing (OLAP)?

A2: A class of software the allows complex analysis to be preformed on a large database without affecting the transactional system in a negative manner.

Q3: What is a database transaction?

A3: Any change to data within a system such as adding(insertion), removing(deletion) or a query(search).

Q4: What is a Data Warehouse?

A4: A technology that is dedicated to the storage of data from a wide range of sources.

Q5: What is a Data Mart or Data Marts?

A5: A subnet of a data warehouse that is dedicated to a specific group i.e Human Resource or CRM

Q6: What is a fact table?

A6: A table that holds concrete information about a business process or event and contains keys to related tables.

Q7: What is a dimension table?

A7: A table that holds attributes or categorial information to support a fact table.

Q8: What is a Star Schema?

A8: A relational model that resembles a start with the fact table in the center and dimensional tables surrounding it. All dimensional tables are joined to a single fact table.

Q9: What is a Snowflake Schema?

A9: A relational model that resembles a snowflake. There is a single fact table in the center with various dimension tables joined to it. Dimension tables are also joined to other dimension tables.

Q10: What is a Data Lake?

A10: A technology that stores a vast amount of structured and unstructured information in the original format.

Q11: What is a Data Lakehouse?

A11: A management system that combines the best of both data warehousing and data lakes.

Q12: What are Slowly Changing Dimensions? How many types are there?

A12: A way to update dimensional data. There are three primary types.

Q13: What are the primary types of slowly changing dimension?

A13:

1. Overwrites existing values with new values. Doesn’t retain history.
2. Adds new information rows and maintains history.
3. Adds new information columns and maintains previous columns