**Learning Activity 2.4: Concept Check Point**

Answer the following questions:

1. What is a database?

A database is a data structure that stores organized information on a server.

1. What are the problems associated with list?

Can become redundant by storing the same data multiple times in multiple places.

Can become cumbersome when trying to organize and manage data (Deletion, Update and Insertion anomalies)

1. What are anomalies? Differentiate between different anomalies.

Insert anomaly: occurs when certain attributes cannot be inserted into the database without the presence of other attributes.

Update anomaly: occurs with data inconsistency that results from data redundancy or a partial update.

Delete anomaly: occurs when you delete a record that may contain attributes that shouldn't be deleted.

1. What is database management system?

A database management system (DBMS) is the software that allows for the management operation of a database. It allows for the creation of a database, its tables and other DB objects, allows for data manipulation, reduces redundancy, provides security.

1. Give few examples of database management system.

Microsoft SSMS

Microsoft Access

SQLite

Oracle

1. What are the components of DBMS?

Software, Hardware, Procedures, Data and Users