

1. True False

- a. Workers on scene design the database by adding and removing data on the database and they are responsible for communicating with users to ensure that users' needs are fulfilled
- b. DBMS have program data independence
- c. in DBMS changing the physical schema will have an effect on the conceptual schema

2. There is a university database. now explain which following operations require DDL and which require DML.

- (a) Adding a new table named prerequisites having 2 columns.
- (b) Updating and inserting student information

3. DBMS have two types of data independence: logical and physical data independence. Now read the given scenario and identify which type of data independence has been achieved here with your reasoning.

A company have a shop and in their database, to track orders they have a separate table for tracking order in which they store all the information of the customer. Customer information is also stored in a separate table. Therefore, it creates redundancy. So to avoid redundancy, they created a separate table for customer information where each customer has a unique customer ID and then they link the order by the unique customer ID. Adding a new table doesn't change any web interface for the clients or users.

Now based on the scenario which type of data independence happened here with your reasonings?