

1. Define the following key terms related to databases:

Database

This is a shared collection of logically related data, and the description of this data, designed to meet the information needs of an organization

Tables are rows and columns in a database

Record is a group of data stored in a table

Field is an attribute of a record in a database table which may heading of a column, or a label on a container of values

Primary Key an attribute that uniquely identifies records in a table

SQL standard query language

Query is a request sent to retrieve data from a database

Index is a copy of selected columns of data, from a table that is designed to enable efficient search

Normalization is the process of efficiently organizing data in a database.

Database Management System (DBMS). This is a collection of application programs that perform services for the end- users such as production of reports. Each program defines and manages its own data

2. Section B: Discussions

. Describe the purpose of a primary key in a database table and provide an example.

The purpose of -primary key is to extract data from the table for example employee number from employee table

2.1.2. Explain the difference between a database management system (DBMS) and a database.

A database is a shared collection of logically related data, and the description of this data, designed to meet the information needs of an organization while DBMS is a software system that enables users to define, create, maintain, and control access to the database

Discuss in short, the importance of normalization in database design and provide an example of how it can improve data integrity

Normalization is the process of efficiently organizing data in a database, whose goals are eliminating redundant and ensuring data dependencies make sense

Normalization is a DB design technique which begins by examining the relationship between attributes. Attributes describe some properties of data or relationship between data that is important to the enterprise.