Database Fundamentals

Lab Sheet 1

Question 1

a. Data is a collection of facts that can be numbers, words or measurements.

b. Persistent storage is non-volatile storage, meaning that the storage remains intact even when the device is powered off.

c. A database is a tool to store data permanently.

d. Databases Management System is a collection of programs that enables users to create and maintain a database.

e. Database Systems is a high-level definition of the structure and relationship between stored data, a database, users and the hardware or the operating system used for the storage.

f. SQL, also known as Structured Query Language is a standard computer language for relational database management and data manipulation.

Question 2

a. MySQL is the world’s most popular database. It is owned by Oracle and is an open-source database. MySQL is a Relation Database Management System and is a first choice database for many organisations in the world, including, Facebook, YouTube and Twitter.

b. MS Access is a database management system which is currently owned by Microsoft. MS Access is not an open source database due to a required payment to use the service. It is one of the most popular database systems mainly because it comes as part of the Microsoft office package.

c. SQL Server is owned by Microsoft and is a relational database management system. It is not a common first choice database system, being beaten out by Access and MySQL as the go-to database systems. SQL Server is however open source unlike Access.

d. Oracle 12c is an object relational database management system owned by Oracle. It is an open source database, but is not the most popular among users.