

## REVIEW QUESTIONS ABOUT THE LESSON 1

1. Define the following terms: *data, database, DBMS, database catalog, program-data Independence, user view, end user, canned transaction, meta-data.*

*-Data: Facts that we can register and has a meaning.*

*-Database: A recompilation of related data.*

*-DBMS: DataBase Monitor System, software to create and manage databases.*

*-Database catalog: A stored description of a database that includes structures, constraints and types to describe the database itself.*

*-Program-data Independence: Naming to call the property of store the database structure separately of the access programs.*

*-User view: Layer of content that shows and simplifies the most valuable data for the current user.*

*-End user: Person that use the application.*

*-Canned transaction: Pre-defined transactions that no require any customization to be executed in a system.*

*-Meta-data: Is the data about data, brings the information about what the data on a system is.*

2. Discuss the capabilities that should be provided by a DBMS.

The DBMS on a system should be provide all the necessary to create and manage databases. Allowing to define the constraints, structure and type of data in our databse and the manipulation doing queries, modifications and accessing with web applications inside a multi-user environment. Also can be provide functions to manage security access, visualize and show data and do maintenance of database and related programs.

3. Discuss the main characteristics of the database approach and how it differs from traditional file systems.

Database approach is defined over a structured organization with the capabilities to manage related data, guaranteeing the integrity, the concurrent access, query ability and scalability.

The traditional file system are less structured, efficient handling data and not have advanced data management mechanisms.

#### 4. What are the responsibilities of the database designers?

They have to understand the needs of the users in order to define the content, structure and all the functions of the database to cover their requirements.

#### 5. What are the different types of database end users? Discuss the main activities of each.

The end users are classified in:

- Casual, with access to the database when needed.
- Naïve, who use canned transactions, mobile apps, bank-tellers and social media users.
- Sophisticated, like business analysts, scientists, engineers.
- Independent, manage personal databases with ready-to-use apps, financial software packages or personal media.
- Software developers and system analysts, this groups is at charge of design and creation of apps with canned transactions, debugging of features and analyze the Big Data to take decisions.