

Course Name: **A Level (1st Sem)**

Subject : **Introduction to DBMS**

Topic: **RDBMS & Its Terminologies (Part 2)**

Date: **20-Mar-2020**

RDBMS Terminologies:

- **Schema and Instance:**

The overall design, structure and description of the database are called the *database schema*.

The collection of information stored in the database at a particular moment is called an *instance of the database*.

The important point is that instance of the database may get changed frequently but the schema of database may not get changed frequently.

Every time when user insert/update/delete records in the database, the instance changes from one state to another state. At the given time, each schema has its own set of instances.

- **Entity:**

An entity is a real world or conceptual object /thing for which data are to be stored in the database.

For example in School or University database, **student, teacher, class, subject** etc is considered as entity.

In some Organizational database **employee, department, salary, project** etc is considered as entity.

- **Entity Set-**

Groups of entity of same type that share the same properties are called entity set. For example:

The entity set instructor that is the set of all people who are instructor.

The entity set student that represents the set of all students in the school.

- **Weak Entity-**

A weak entity is that entity that cannot be uniquely identified by its own attributes alone. It depends on other entity. For example

installment entity is weak entity that depends on *loan* entity.

loan entity is weak entity that depends on *customer* entity.

- **Attribute:**

An attribute describes the entity. Entities are represented by means of their properties called attribute. The values of attributes are stored in the database. For example

Student entity may have attributes like

stu_rollno, stu_name, stu_fname, stu_dob, stu_mobile etc

Employee entity may have attributes like

emp_id, emp_name, emp_fname, emp_city etc

Department entity may have attributes like

dept_id, dept_name, dept_location, dept_budget etc.

Exercises:

1. Identify Entities and Attributes in any Ecommerce Organization database.
2. Explain about weak entity. Any example of weak entity.