**BA/DA TRAINING**

**ER - Assignment – 7(July15,2019)**

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1. **Explain Entity Relation diagram (ER) with example .**

**Ans:-** An entity relationship diagram describes how entities relate to each other. In simple terms, it is a picture or a framework of your business or a certain business process. ERD can be useful for organizing data that can be represented by a relational structure.

It is mainly used by analysts when designing a database. The database helps them communicate the landscape of the business to different teams, and this overview helps to build the applications needed to support the business.

**There are three basic components of an entity relationship diagram:**

1. [Entities](https://whatis.techtarget.com/definition/entity) - An entity can be place, person, object, event or a concept, which stores data in the database.
2. Attributes - which are properties or characteristics of entities. An ERD attribute can be denoted as a primary key, which identifies a unique attribute, or a foreign key, which can be assigned to multiple attributes.
3. The relationships - Relationship is nothing but an association among two or more entities .

**Reasons for using the ER Diagram**

* The database designer gains a better understanding of the information to be contained in the database with the help of ERP diagram
* ER diagrams are translatable into relational tables which allows you to build databases quickly
* ERD is allowed to communicate with the logical structure of the database to users
* Provide a preview of how all tables should connect, what fields are going to be on each table
* Helps to describe entities, attributes, relationships

**Relationship -** There are four kind of relationship exist as follow.

* **One-to-one** − When only one instance of an entity is associated with the relationship, it is marked as '1:1'. It depicts one-to-one relationship.
* **One-to-many** − When more than one instance of an entity is associated with a relationship, it is marked as '1:N'. It depicts one-to-many relationship.
* **Many-to-one** − When more than one instance of entity is associated with the relationship, it is marked as 'N:1'. It depicts many-to-one relationship.
* **Many-to-many** – It means more than one instance of an entity on the left and more than one instance of an entity on the right can be associated with the relationship. It depicts many-to-many relationship.

**Entity Relation diagram- Banking ER Diagram**

