**SQL Assignment 1**

1. What is a relational database management system (RDBMS)? What are the advantages of a database management system over a file system?

**Ans:** Relational database system is nothing but the data is stored in tables format.

Advantages of RDBMS over a file system ,in file system cannot control the redundancy but in rdbms it control the redundancy.RDBMS controls the inconsistency. And data is secured in RDBMS

1. In a database management system, explain the ACID properties.

**Ans**:1.Atomocity:The entire transaction is takes place at once or doesn’t happen

at all

2.Consistency: The database must be consistent before and after the

transaction

3.Isolation: Concurrency Control Manager

4. Durability: Recovery Manager

1. Explain the concept of normalization.

Ans: **Normalization** is the process of minimizing **redundancy** from a relation or set of relations. Redundancy in relation may cause insertion, deletion, and update anomalies. So, it helps to minimize the redundancy in relations. **Normal forms** are used to eliminate or reduce redundancy in database tables.

1. Explain the many types of query languages used in relational databases. DQL, DML, DCL, and DDL are some examples.

Ans: DDL – Data Definition Language(create,drop,truncate,alter)

DQl – Data Query Language(select)

DML – Data Manipulation Language(insert,delete,update)

DCL – Data Control Language(grant,revoke)

1. What is the difference between the main key and a composite key? Give instances of how primary key and composite are used.

**Ans:** First, a primary key uniquely identifies each record in a database table. Any individual key that does this can be called a candidate key, but only one can be chosen by database engineers as a primary key.

Next, there's the composite key, which is composed of two or more attributes that collectively uniquely identify each record.

1. Create a table with a primary key, a column default value, and a column unique constraint in SQL.

**Ans:** create table\_name

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Name varchar(30),

Id int NOTNULL,

Rollnum int NOTNULL,

City varchar(50) DEFAULT “Andhra”

Primary key (Id)

UNIQUE(Rollnum)

);