**Assignment – 3**

**Testing on Live Application**

1. **What is RDBMS?** RDBMS stands for Relational Database Management System. RDBMS is the basis for SQL, and for all modern database systems like MS SQL Server, IBM DB2, Oracle, MySQL, and Microsoft Access. A Relational database management system (RDBMS) is a database management system (DBMS) that is based on the relational model as

introduced by E. F. Codd.

Most of today's databases are relational:

* Database contains 1 or more tables
* Table contains 1 or more records
* Record contains 1 or more fields
* Fields contain the data
* So why is it called "relational"?
* Tables are related (joined) based on common fields

1. **What is SQL?**

SQL tutorial gives unique learning on Structured Query Language and it helps to make practice on SQL commands which provides immediate results.

1. **Write SQL Commands**

DDL – Data Definition Language

DML – Data Manipulation Language

DCL – Data Control Language

DQL – Data Query Language

1. **What is join?**

The term "join" is commonly used in the context of databases and SQL (Structured Query Language). A join is an operation that combines rows from two or more tables based on a related column between them. It allows you to retrieve data from multiple tables in a single query by establishing a relationship between them.

1. **Write type of joins.**

* **INNER JOIN**: returns rows when there is a match in both tables.
* **LEFT JOIN**: returns all rows from the left table, even if there are no matches in the right table.
* **RIGHT JOIN**: returns all rows from the right table, even if there are no matches in the left table.
* **FULL JOIN**: returns rows when there is a match in one of the tables.

1. **Difference between RDBMS vs DBMS**

|  |  |  |
| --- | --- | --- |
| **Aspect** | **RDBMS** | **DBMS** |
| Definition | A type of DBMS that manages data in a relational manner using tables, relationships, and SQL. | A general-purpose system that manages and organizes data without enforcing a specific structure or relationships. |
| Data Model | Follows the relational data model. | Can follow various data models (hierarchical, network, object-oriented, etc.). |
| Structure | Organizes data in tables with rows (records) and columns (attributes). | Does not enforce a specific structure, can use different data organization methods. |
| Data Integrity | Supports data integrity through various constraints like primary keys, foreign keys, and referential integrity. | Relies on application programs or manual processes for maintaining data integrity. |
| Data Manipulation Language | Provides SQL (Structured Query Language) for data manipulation and querying. | May or may not provide a standardized language for data manipulation. |
| Query Optimization | Optimizes queries using techniques like indexing, query plans, and query optimization algorithms. | Query optimization may or may not be available or may be limited. |
| Scalability | Offers good scalability for large-scale data handling and performance optimization. | Scalability depends on the specific implementation and may not be as advanced as RDBMS. |
| Data Consistency | Maintains ACID properties (Atomicity, Consistency, Isolation, Durability) to ensure data consistency. | Data consistency mechanisms may vary or may not be as robust as ACID properties. |
| Data Security | Provides security features like user authentication, access control, and encryption. | Security features may vary or may not be as comprehensive as RDBMS. |
| Example | MySQL, Oracle, SQL Server, PostgreSQL. | MongoDB, Redis, SQLite. |

1. **What is API Testing?**

* Application Programming Interface (API) is a software interface that allows twoapplications to interact with each other without any user intervention
* another definition, API (Application Programming Interface) is a computing interface which enables communication and data exchange between two separate software systems.
* The purpose of API Testing is to check the functionality, reliability, performance, and security of the programming interfaces.
* In API Testing, instead of using standard user inputs(keyboard) and outputs, you use software to send calls to the API, get output, and note down the system’s response.
* API tests are very different from GUI Tests and won’t concentrate on the look and feel of an application.

1. **Types of API Testing?**

* **There are mainly 3 types of API Testing**
  + **Open APIs**: These types of APIs are publicly available to use like OAuth APIs from Google. It has also not given any restriction to use them. So, they are also known as Public APIs.
  + **Partner APIs**: Specific rights or licenses to access this type of API because they are not available to the public.
  + **Internal APIs**: Internal or private. These APIs are developed by companies to use in their internal systems. It helps you to enhance the productivity of your teams.

1. **How Many constraint and describes it self**

In SQL, there are several types of constraints that can be used to define rules and restrictions on the data stored in a database table. Here are some common constraints used in SQL:

**Primary Key:** A primary key is a column or a set of columns that uniquely identifies each record in a table. It ensures that each row has a unique identifier and helps in the efficient retrieval of data. By default, primary key columns have the "NOT NULL" constraint, meaning they cannot contain NULL values. A table can have only one primary key.

**Foreign Key:** A foreign key is a column or a set of columns in one table that refers to the primary key in another table. It establishes a relationship between the two tables, known as a referential integrity constraint. Foreign keys help maintain data integrity by enforcing the relationship between related tables. They ensure that values in the foreign key column(s) correspond to existing values in the primary key column(s) of the referenced table.

**Unique Key:** A unique key ensures that the values in a column or a set of columns are unique across all records in a table. Unlike the primary key, a table can have multiple unique keys. Unique keys allow you to enforce uniqueness without mandating the key to be the primary identifier for the table. They are used to prevent duplicate values in specific columns.

**Not Null Key:** "NOT NULL" is a constraint that can be applied to a column in a table. It specifies that the column cannot contain NULL values, meaning it must always have a value. By applying the "NOT NULL" constraint, you enforce that the column must have data in it. This constraint is often used with primary key columns to ensure their values are always present.

1. **What is Responsive Testing?**

* A responsive web design involves creating a flexible web page that is accessible from any device, starting from a mobile phone to a tablet.
* Furthermore, a responsive web design improves users’ browsing experience.
* Considering this from a quality assurance perspective, a responsive web design requires thorough evaluation using a variety of devices before it is ready to go live.
* Software testers may find it challenging to perform responsive design testing as a variety of factors are to be looked into during the testing phase.
* Some points to be understand for Responsive Testing.
  + The challenges involved in testing a responsive website
  + How website testing differs from a mobile device to a computer
  + Rules and guidelines to be followed during responsive design testing and
  + Lastly, various tools available to perform responsive testing

1. **Which types of tools are available for Responsive Testing?**

* LT Browser
* Lembda Testin
* Google Resizer
* I am responsive
* Pixel tuner

1. **How to create step for to open the developer option mode ON?**
2. Go to “setting”.
3. Tap “About device” or “About phone”
4. Tap “Software information”
5. The “Developer options” menu will now appear in your Settings menu.
6. USB dubbing.
7. Allow USB budding mode on.
8. **What is the full form of .ipa, .apk**