DB Testing

Questions

1. What is DB testing?
2. Difference between DB testing and UI Testing
3. Types of DB testing

Notes =

[https://dev.mysql.com/downloads/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa1NQZGJQYXJaWktYOUZEZm5aZmhmTFJNRmFvd3xBQ3Jtc0trYmlGOWU2bzIwUmRkR3NKckJ6TjBSVmZHMzNyVE9ETmR0SjVSRkR0b3ctMWc0cWxRMEpNdzJ4TzN0MFJJNzVWN3BQUTRrdXd2dndtZl9TTENfMjAyeTc1WDA1MlVWSGJYWGprYmZVNEt2ZjFOTTYxOA&q=https%3A%2F%2Fdev.mysql.com%2Fdownloads%2F) - download mysql

<https://www.mysqltutorial.org/mysql-sample-database.aspx> sample DB

1. What is DB testing

**Database Testing** is a type of software testing that checks the schema, tables, triggers, etc. of the Database under test. It also checks data integrity and consistency

1. Need of DB testing
2. The application stores the transaction information in the application database and displays them correctly to the user.
3. No information is lost in the process.
4. No partially performed or aborted operation information is saved by the application.
5. No unauthorized individual is allowed to access the user’s information

Diagram

Description automatically generated

**Schema Testing –**

**Test cases –** refer ClinDoc\_TestCases excel file for DB test cases

1. Check table presence in DB schema
2. Check table name conventions
3. Check no of columns in table
4. Check column names in table
5. Check data type of columns in table
6. Check size of columns in a table
7. Check null fields in a table
8. Check column keys in a table

**Stored Procedure Testing –**

1. What is SP and advantages of SP

* SP is SQL code that you can save, so the code can be reused over and over again
* So if you have an SQL query that you write over and over again, save it as a stored procedure, and then just call it to execute it.
* You can also pass parameters to a stored procedure, so that the stored procedure can act based on the parameter value(s) that is passed
* delimiter //
* create procedure selectAllCustomers()
* Begin
* select \* from customers;
* END //
* delimiter ;
* call selectAllCustomers();
* Reduce network traffic – SP help reduce the network traffic between applications and Mysql server. Cz instead of sending multiple lengthy sql statements, applications have to send only name & parameters of SP.
* Centralize nosiness login in DB – we can use SP to implement business logic that is reusable by multiple applications.
* Make DB more secure – DBA can grant appropriate privileges to application that only access specific stored procedures without giving any privileges on underlying tables

1. How to create SP?

**delimiter //**

**create procedure selectAllCustomersByCity(IN mycity Varchar(50))**

**Begin**

**select \* from customers where city = mycity;**

**END //**

**delimiter ;**

1. How to call SP

**call selectAllCustomersByCity("Nantes");**

1. How to write test cases for SP?

refer ClinDoc\_TestCases excel file for SP test cases

1. How to test SP?

**Common test scenarios for SP-**

1. Check SP exist in DB
2. Check SP with valid input data
3. Check SP handle exceptions when you pass invalid input data
4. Check SP display results as expected
5. Check SP inserting data in proper table
6. Check SP updating data in proper table
7. Check SP deleting data from proper table
8. Check calling SP from another SP.

Graphical user interface, table

Description automatically generated with medium confidence