**What is Database Testing?**

Database Testing is checking the schema, tables, triggers, etc. of the database under test. It may involve creating complex queries to load/stress test the database and check its responsiveness. It Checks data integrity and consistency.

This type of testing is also known as Back-end Testing or data testing.

This type of testing chiefly deals with all the testable items that are generally hidden from the user for viewership. These include internal process and storage DBMS like Oracle, SQL Server, MYSQL, etc.

This type of testing involves validating:

* schema,
* database tables,
* columns ,
* keys and indexes,
* stored procedures,
* triggers ,
* database server validations,
* validating data duplication,

The tester in order to be able to perform back-end testing must have a strong background in the database server and Structured Query Language concepts and JDBC (Java to Database Connectivity)

**What is database testing and what we test in database testing**

Data bas testing basically include the following.  
1) Data validity testing.  
2) Data Integrity testing  
3) Performance related to database.  
4) Testing of Procedure, triggers and functions.  
For doing data validity testing you should be good in SQL queries  
For data integrity testing you should know about referential integrity and different constraint.  
For performance related things you should have idea about the table structure and design.  
For testing Procedure triggers and functions you should be able to understand the same.

**What we normally check for in the Database Testing?**

Database testing involves some in-depth knowledge of the given application and requires more defined plan of approach to test the data. Key issues include:   
1) data Integrity   
2) data validity   
3) data manipulation and updates.   
   
Tester must be aware of the database design concepts and implementation rules

**How to Test database in Manually? Explain with an example**

Observing that operations, which are operated on front-end is effected on back-end or not.   
The approach is as follows:   
While adding a record thru' front-end check back-end that addition of record is effected or not.   
So same for delete, update...   
   
Ex: Enter employee record in database thru' front-end and check if the record is added or not to the back-end (manually).

**What are the different stages involved in Database Testing**

In DB testing we need to check for,  
1. The field size validation  
2. Check constraints.  
3. Indexes are done or not (for performance related issues)  
4. Stored procedures.  
5.The field size defined in the application is matching with that in the db.  
  
**What SQL statements have you used in Database Testing?**

DDLDDL is Data Definition Language statements. Some examples: · CREATE · ALTER - · DROP -· TRUNCATE -· COMMENT - · RENAME - DMLDML is Data Manipulation Language statements. Some examples: · SELECT - · INSERT - · UPDATE - · DELETE - · MERGE - UPSERT -· CALL - · EXPLAIN PLAN - · LOCK TABLE - DCLDCL is Data Control Language statements. Some examples: · GRANT - · REVOKE - · COMMIT - · SAVEPOINT - · ROLLBACK - COMMIT -· SET TRANSACTION - This are the Database testing commands.

**What steps does a tester take in testing Stored Procedures?**

The tester has to go through the requirement, as to why the particular stored procedure is written for? And check whether all the required indexes, joins, updates, deletions are correct comparing with the tables mentions in the Stored Procedure.  And also he has to ensure whether the Stored Procedure follows the standard format like comments, updated by, etc.

**How to check a trigger is fired or not, while doing Database testing?**

It can be verified by querying the common audit log where we can able to see the triggers fired.

**Is an "A fast database retrieval rate" a testable requirement?**

Since the requirement seems to be ambiguous. The SRS should clearly mention the performance or transaction requirements i.e. It should say like 'A DB retrieval rate of 5 micro sec'.

**What is way of writing test cases for database testing?**

You have to do the following for writing the database test cases.

1. First of all you have to understand the functional requirement of the application thoroughly.

2. Then you have to find out the back end tables used, joined used between the tables, cursors used (if any), triggers used (if any), stored procedures used (if any), input parameter used and output parameters used for developing that requirement.

3. After knowing all these things you have to write the test cases with different input values for checking.

One thing writing test cases for backend testing not like functional testing. You have to use white box testing techniques.