

FULL STACK



Automation Testing

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JDBC CRUD Operations



Learning Objectives

By the end of this lesson, you will be able to:

- 🕒 Insert data in the database
- 🕒 Update data in the database
- 🕒 Delete data or records in the database
- 🕒 Comprehend CRUD operations

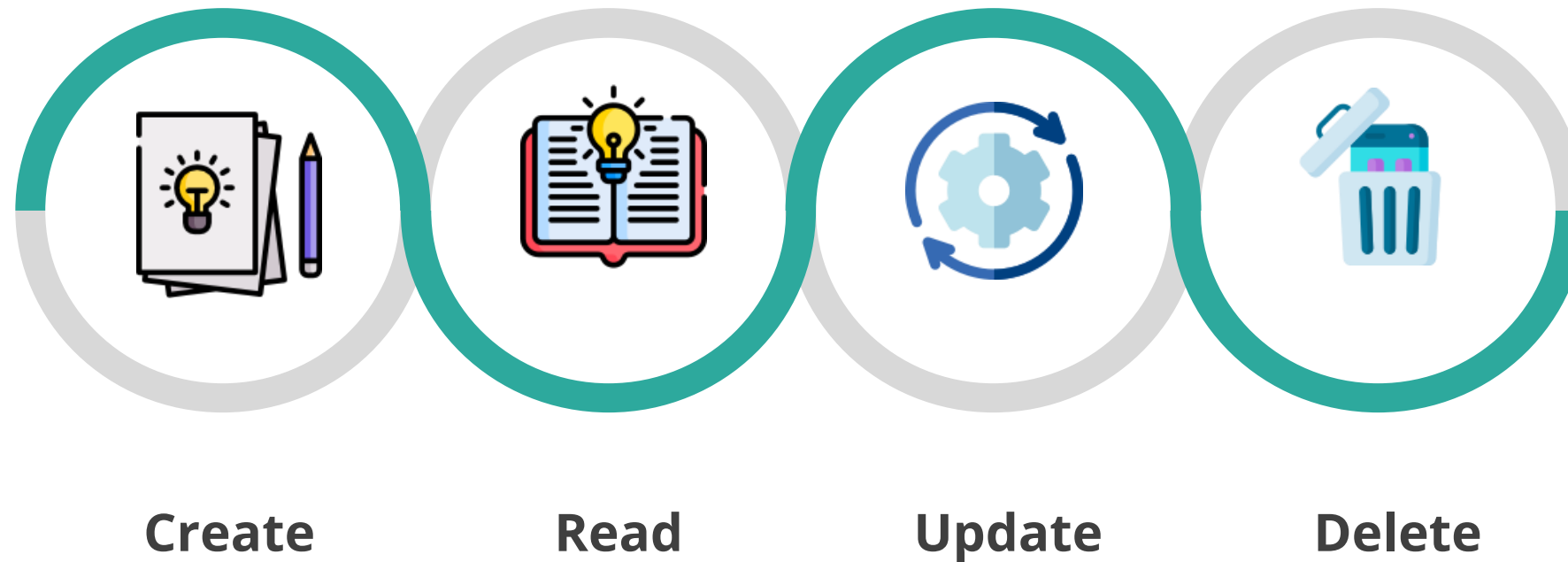


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CRUD: Overview

What Is CRUD?

The acronym CRUD refers to the four functions that are deemed necessary to construct a persistent storage application in the area of computer programming:



CRUD

The DBMS uses an integer number to handle insertion, update, and deletion.

Operations	Description
Insert	DBMS returns 1 if the record is successfully inserted into the database.
Update	DBMS returns count, indicating that the number of records has been changed.
Delete	DBMS returns 1 if the record is successfully erased, otherwise it returns 0.

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Insert Data in the Database

Insert a Record

An **INSERT** statement is used to insert a record in a database table.

Sample code

```
//Connection and statement objects
    Connection connect = null;
    Statement stmt = null

// Database to be connected to
static final String database_URL =
    "jdbc:mysql://localhost/databaseName";

// Insert a record into SampleTable
stmt = connect.createStatement();
String sqlString = "INSERT INTO employeeRecords " + "VALUES
(100, 'firstNameTest', 'lastNameTest')";
stmt.executeUpdate(sqlString);
```


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Update Data in the Database

Update a Record

An **UPDATE** statement is used to update an existing record in a database table.

Sample code

```
//Connection and statement objects
    Connection connect = null;
    Statement stmt = null

// Database to be connected to
static final String database_URL =
    "jdbc:mysql://localhost/databaseName";

// Insert a record into SampleTable
stmt = connect.createStatement();
String sqlString = "UPDATE employeeRecords " + "SET
lastName = Rao WHERE id in (101, 203)";
stmt.executeUpdate(sqlString);
```

Delete Data from the Database

Delete a Record

A **DELETE** statement is used to delete an existing record from a database table.

Sample code

```
//Connection and statement objects
    Connection connect = null;
    Statement stmt = null

// Database to be connected to
static final String database_URL =
    "jdbc:mysql://localhost/databaseName";

// Insert a record into SampleTable
stmt = connect.createStatement();
String sqlString = "DELETE FROM employeeRecords"
+ "WHERE id=101";
stmt.executeUpdate(sqlString);
```


Key Takeaways

- The DBMS uses an integer number to handle insertion, update, and deletion.
- An UPDATE statement is used to update an existing record in a database table.
- A DELETE statement is used to delete an existing record from a database table.
- The acronym CRUD refers to the four functions that are deemed necessary to construct a persistent storage application in computer programming.

