DT : 27/1/2025

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Transaction Management in JDBC:

define Transaction?

=>The set-of-statements which are executed on a single resource or multiple resources using ACID properties,is known as Transaction.

A - Atomicity

C - Consistency

I - Isolation

D - Durability

A - Atomicity

=>The process in which all statements in Transaction are executed at-a-time or not-at-all,is known as Atomicity.

C - Consistency

=>The process in which the select state-of-resources remain same until the transaction is completed,is known as Consistency.

I - Isolation

=>The process in which multiple users execute independently,is known as Isolation.

D - Durability

=>The process in which storing the transaction details and making it available for user,is known as Durability.

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faq:

define Transaction Management?

=>The process of controlling the transcation from starting to ending is known as Transaction Management.

=>We use the following methods in Transaction Management:

1.getAutoCommit()

2.setAutoCommit()

3.setSavepoint()

4.releaseSavepoint()

5.commit()

6.rollback()

1.getAutoCommit():

=>getAutoCommit()-method is used to check the status of commit-operation.

Method Signature:

```
public abstract boolean getAutoCommit() throws java.sql.SQLException;
```

syntax:

```
boolean b = con.getAutoCommit();
```

2.setAutoCommit():

=>setAutoCommit()-method is used to stop the auto commit operation.

Method Signature:

public abstract void setAutoCommit(boolean) throws java.sql.SQLException;

syntax:

con.setAutoCommit(false);

3.setSavepoint():

=>setSavepoint()-method will give specification for rollback operation when transaction failed.

Method Signature:

public abstract java.sql.Savepoint setSavepoint() throws java.sql.SQLException;

syntax:

Savepoint sp = con.setSavepoint();

4.releaseSavepoint():

=>releaseSavepoint()-method is used to delete the savepoint.

Method Signature:

public abstract void releaseSavepoint(java.sql.Savepoint) throws java.sql.SQLException;

syntax:

con.releaseSavepoint(sp);

5.commit():

=>commit()-method is used to perform commit-operation when the transaction is Successfull,which the save permanently to database when all statements in Transaction are executed Successfully.

Method Signature:

public abstract void commit() throws java.sql.SQLException;

syntax:

con.commit();

6.rollback():

=>rollback()-method will perform rollback operation,which means reset the buffer and move the control to savepoint.

Method Signature:

public abstract void rollback() throws java.sql.SQLException;

public abstract void rollback(java.sql.Savepoint) throws java.sql.SQLException;

syntax:

con.rollback(sp);

Note:

(i)JDBC-Applications will perform auto-commit operation.

(ii)To perform Transaction Management,we have stop auto-commit-operation.

Diagram:

Transaction : Book Ticket using 'Book My Show'

1.Login process

2.Region

3.Movie

4.Date

5.No Tickets

6.Theater

7.Select the seats

8.Payment

(i)Card

(ii)UPI

....

9.Tickects Confirmation MSg
(Mobile/MailId)

10.Logout