JDBC PART-8

Transaction Management in JDBC:

A transaction is a set of one or more statements that is executed as a unit, so either all of the statements are executed, or none of the statements is executed.

By default all transactions are automatically commited because in jdbc auto commit mode is true.

The following methods are used to manage transactions manually.
1) setAutoCommit() => It is used to set the auto commit mode.
2) commit() => It is used to commit the transaction.
3) rollback() => It is used to cancel the transaction.

/* Program to demonstrate setAutoCommit() method, commit() method & rollback() method */

```
package jdbc;

import java.sql.*;

public class TMDemo
{
        public static void main(String[] args)
        {
                try{
                Class.forName("oracle.jdbc.driver.OracleDriver");
                Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","system","manager");
```

```
            con.setAutoCommit(false);
            Statement stmt=con.createStatement();
            stmt.executeUpdate("insert into student
values(9,'iii',55)");
            con.commit();
            stmt.executeUpdate("update student set marks=40
where rollno=8");
            con.rollback();
            stmt.executeUpdate("delete from student where
rollno=6");
            con.commit();
            }catch(ClassNotFoundException | SQLException e)
            {
                    e.printStackTrace();
            }
        }
}
```

Savepoint:

Savepoint interface gives the additional transaction control.
A Savepoint object is used to save the the current state of the database
which can be rolled back later.

//Program to demonstrate Savepoint interface
package jdbc;

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.sql.Savepoint;
import java.sql.Statement;
```

```
public class SPDemo
{
        public static void main(String[] args)
        {
                try{
                Class.forName("oracle.jdbc.driver.OracleDriver");
                Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:x
e","system","manager");
                con.setAutoCommit(false);
                Statement stmt=con.createStatement();
                stmt.executeUpdate("insert into student
values(10,'jjj',25)");
                Savepoint s=con.setSavepoint();
                stmt.executeUpdate("update student set marks=40
where rollno=8");
                con.rollback(s);
                stmt.executeUpdate("delete from student where
rollno=7");
                con.commit();
                }catch(ClassNotFoundException | SQLException e)
                {
                        e.printStackTrace();
                }
        }
}
```

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