Dt : 10/10/2024(Day-14)

**imp*

Creating and Executing Function on Database Product:

step-1 : Construct function to display balance of Customer based on accNo

```
create or replace function RetrieveBalance67
(acno number) return number as bl number;
begin
   select bal into bl from BankCustomer67 where accno=acno;
   return bl;
end;
/
```

step-2 : Construct JDBC Application to execute function.

Program : DBCon10.java

```
package test;
import java.util.*;
import java.sql.*;
public class DBCon10 {
      public static void main(String[] args) {
       Scanner s = new Scanner(System.in);
       try(s;){
         Class.forName("oracle.jdbc.driver.OracleDriver");
         Connection con = DriverManager.getConnection
                   ("jdbc:oracle:thin:@localhost:1521:xe","system","tiger");
         CallableStatement cs = con.prepareCall
                     ("{call ?:=RetrieveBalance67(?)}");
         System.out.println("Enter the Cust-AccNo to retrieve balance:");
         long accNo = s.nextLong();

         cs.registerOutParameter(1, Types.FLOAT);
```

```
            cs.setLong(2, accNo);

            cs.execute();
            System.out.println("Cust-AccNo:"+accNo);
            System.out.println("Cust-Bal:"+cs.getFloat(1));

            con.close();
          }catch(Exception e) {
            System.out.println(e.toString());
          }
        }
}
```

o/p:

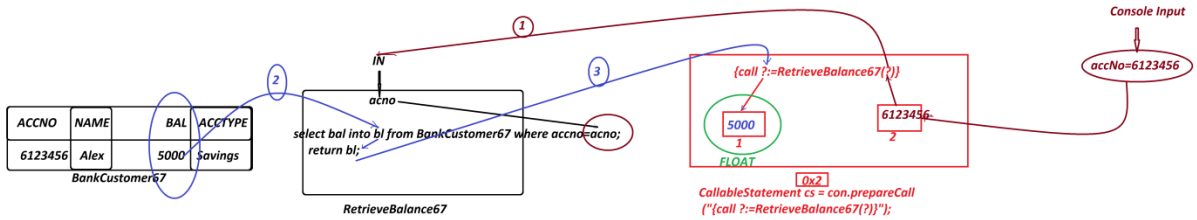
Enter the Cust-AccNo to retrieve balance:

6123456

Cust-AccNo:6123456

Cust-Bal:5000.0

Layout:



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Assignment:

Construct and execute Function to display percentage of student based on rollNo.

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****imp***

Transaction Management in JDBC:

define Transaction?

=>set-of-statements executed on a resource or resources using ACID Properties is known as Transaction.

A - Atomicity

C - Consistency

I - Isolation

D - Durability

A - Atomicity

=>Atomicity means executing all statements in transaction at-a-time or not-at-all.

C - Consistency

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

I - Isolation

=>The process in which multiple users are executed independently is known as Isolation.

D - Durability

=>The process in which the transcation details are stored and available,is known as Durability.

Transaction : Book Tickets using BookMyShow

1.Login process
2.Region
3.Select Movie
4.Select data
5.Select Show time
6.No of tickets
7.Select the tickets(Block the tickets)
8.Payment
(i)...
(ii)...
9.If Payment Successful,then tickets confirmed
10.Message(Mobile,Mail)
11.Logout

---

define Transaction Management?

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

=>we use the following methods in Transaction Management:

(a)getAutoCommit()

(b)setAutoCommit()

(c)setSavepoint()

(d)releaseSavepoint()

(e)commit()

(f)rollback()

(a)getAutoCommit():

=>getAutoCommit()-method is used get commit-status

syntax:

boolean k = con.getAutoCommit();

(b)setAutoCommit():

=>setAutoCommit()-method is used to set the commit-status to "true" or "false".

syntax:

con.setAutoCommit(false);

(c)setSavepoint():

=>setSavepoint()-method is used set a save-point for transaction rollback.

syntax:

Savepoint sp = con.setSavepoint();

(d)releaseSavepoint():

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

syntax:

con.releaseSavepoint();

(e)commit():

=>commit()-method is used to save permanently to database.

syntax:

con.commit();

(f)rollback():

=>rollback()-method is used to re-set the transaction when transaction failed.

syntax:

con.rollback(sp);
