CodeWriter.Java

```
public @interface CodeWriter
{String developer();
String task();
}
```

---

KodnestBank.java

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.Scanner;
//@SuppressWarnings("unused")
public class KodnestBank implements Bank {
	private Connection con = null;
	private Scanner scan = new Scanner(System.in);
	public static KodnestBank ref = null;
	public static KodnestBank getInstance()
	{
		if(ref==null)
		{
			ref = new KodnestBank();
		}
		return ref;
	}
	private KodnestBank() {
		String path = "oracle.jdbc.driver.OracleDriver";
		String url = "jdbc:oracle:thin:@localhost:1521:xe";
		String user = "system";
		String password = "system";
		try {
			Class.forName(path);
			con=DriverManager.getConnection(url, user,
password);
		}
		catch(Exception e)
			{ e.printStackTrace()
			;
		}
	}


	@CodeWriter(developer="RAKSHITHA",task="This
PerformsRegistration")
@Override
```

```
	public void register()
	{
		try{
			System.out.println("Enter Accno");
			String accno=scan.next();
			System.out.println("Enter password");
			String pwd=scan.next();
			System.out.println("Enter Confirm Password");
			String cpwd=scan.next();
			System.out.println("Enter Name");
			String name=scan.next();
			System.out.println("Enter Amount");
			int amt=scan.nextInt();
			System.out.println("Enter Age");
			int age=scan.nextInt();
			System.out.println("Enter Email");
			String email=scan.next();
			System.out.println("Enter Phone Number");
			String phone=scan.next();

if(accno.length()!=10||pwd.equals(cpwd)==false||name.length()<
3||amt<=0||age<18||email.length()<10||phone.length()!=10)
			{
				System.out.println("Registration
Unsuccessful...please Retry...");
			}
			else
			{
				String sql="insert into kodnestbank
values(?,?,?,?,?,?,?)";
				PreparedStatement
ps=con.prepareStatement(sql);
				ps.setString(1, accno);
				ps.setString(2, pwd);
				ps.setString(3, name);
				ps.setInt(4, amt);
				ps.setInt(5, age);
				ps.setString(6, email);
				ps.setString(7, phone);
				int nora=ps.executeUpdate();
				if(nora==1)
				{
					System.out.println("Registration
Successful");
```

```
                    }
                    else
                    {
                         System.out.println("Some Issue
Occured Please Contact Nearest Branch..");
                    }
               }
          }
          catch(Exception e)
          {
               e.printStackTrace();
          }
     }


     @CodeWriter(developer="UMA",task="This Performs Login")
@Override
     public void login()//Authenticate
     {
          try{
               String sql="select * from kodnestbank where
accno=? and password=?";
               PreparedStatement ps=con.prepareStatement(sql);
               System.out.println("Enter Your Account
Number");
               String accno=scan.next();
               System.out.println("Enter Your Password");
               String password=scan.next();
               ps.setString(1, accno);
               ps.setString(2, password);
               ResultSet rs=ps.executeQuery();
               if(rs.next())
               {
                    System.out.println("Login Success.......");
                    System.out.println("Your Balance Is
"+rs.getInt("amount"));
               }
               else
               {
                    System.out.println("Invalid User or
Password Please Try agian..");
               }
          }
          catch(Exception e)
          {
               e.printStackTrace();
```

```
            }
      }


      @CodeWriter(developer="UMA",task="This Performs
ChangePassword")
@Override
      public void changePassword()
      {
            try{
                  String sql="select * from kodnestbank where
accno=? and password=?";
                  PreparedStatement ps=con.prepareStatement(sql);
                  System.out.println("Enter Your Account
Number");
                  String accno=scan.next();
                  System.out.println("Enter Your Password");
                  String password=scan.next();
                  ps.setString(1, accno);
                  ps.setString(2, password);
                  ResultSet rs=ps.executeQuery();
                  if(rs.next())
                  {
                        String sql2="update KODNESTBANK set
PASSWORD=? where accno=? and PASSWORD=?";
                        PreparedStatement
ps1=con.prepareStatement(sql2);
                        System.out.println("Enter new Password");
                        String newpwd=scan.next();
                        System.out.println("Confirm new
Password");
                        String cnewpwd=scan.next();
                        if(newpwd.equals(cnewpwd))
                        {
                              ps1.setString(1, cnewpwd);
                              ps1.setString(2, accno);
                              ps1.setString(3, password);
                              int nora=ps1.executeUpdate();
                              if(nora==1)
                              {
                                    System.out.println(nora);
                                    System.out.println("Password
Updated ");
                              }
                              else
                              {
```

```
                                    System.out.println("Some Problem
Occured PLease try Again.……");
                               }
                          }
                          else {
                               System.out.println("New password and
confirm new password is not matching");
                          }
                     }
                     else
                     {
                          System.out.println("Old Accno and Pwd is
Invlaid...");
                     }
               }
               catch(Exception e)
               {
                     e.printStackTrace();
               }
          }


     @CodeWriter(developer="UMA",task="This Performs
TransferAmount")
@Override
     public void transferAmount()
     {
          try{
               String sql1="update kodnestbank set
amount=amount-? where accno=? and password=?";
               String sql2="update kodnestbank set
amount=amount+? where accno=? ";
               con.setAutoCommit(false);
               PreparedStatement
ps1=con.prepareStatement(sql1);
               PreparedStatement
ps2=con.prepareStatement(sql2);
               System.out.println("Enter from accno");
               String faccno=scan.next();
               System.out.println("Enter Password");
               String fpwd=scan.next();
               System.out.println("Enter To accno");
               String taccno=scan.next();
               System.out.println("Enter Amount To Transfer");
               int amt=scan.nextInt();
               ps1.setInt(1, amt);
```

```
                ps1.setString(2, faccno);
                ps1.setString(3, fpwd);
                int nora1=ps1.executeUpdate();
                ps2.setInt(1, amt);
                ps2.setString(2, taccno);
                int nora2=ps2.executeUpdate();
                System.out.println(nora1+" "+nora2);
                if(nora1==1 && nora2==1)
                {
                     con.commit();
                }
                else
                {
                     con.rollback();
                }
           }
           catch (Exception e) {
                try{
                     con.rollback();
                     System.out.println("Some Problem In Server
...Dont Worry Your Money Is SAFE WITH KODNEST BANK.……");
                }catch (Exception e1)
                     { e1.printStackTrace()
                     ;
                }
           }
     }


     @CodeWriter(developer="UMA",task="This Performs
CheckBalance")
@Override
     public void checkBalance()
     {
          try{
                try {
                     String sql="select * from kodnestbank
where accno=? and password=?";
                     PreparedStatement
ps=con.prepareStatement(sql);
                     System.out.println("Enter Your Account
Number");
                     String accno=scan.next();
                     System.out.println("Enter Your Password");
                     String password=scan.next();
                     ps.setString(1, accno);
                     ps.setString(2, password);
```

```
                    ResultSet rs=ps.executeQuery();
                    if(rs.next())
                    {
                         System.out.println("Your balance is
"+rs.getInt("amount"));
                    }
                    else
                    {
                         System.out.println("Invalid User or
Password Please Try agian..");
                    }
               }
               catch(Exception e)
               {
                    e.printStackTrace();
               }
          }
          catch(Exception e)
          {
               e.printStackTrace();
          }
     }


     @CodeWriter(developer="UMA",task="This Performs
Deletion")
@Override
     public void updateProfile()
     {
          try{
               String sql="select * from kodnestbank where
accno=? and password=?";
               PreparedStatement ps=con.prepareStatement(sql);
               System.out.println("Enter Your Account
Number");
               String accno=scan.next();
               System.out.println("Enter Your Password");
               String password=scan.next();
               ps.setString(1, accno);
               ps.setString(2, password);
               ResultSet rs=ps.executeQuery();
               if(rs.next())
               {
                    System.out.println("Pleasse Update Your
Profile");
```

```
                    String sql1="update KODNESTBANK set
email=?, phone=?, age=? where accno=?";
                    System.out.println("enter new email");
                    String email=scan.next();
                    System.out.println("Enter new phone");
                    String phone=scan.next();
                    System.out.println("Enter new Age");
                    int age=scan.nextInt();
                    PreparedStatement
ps2=con.prepareStatement(sql1);
                    ps2.setString(1, email);
                    ps2.setString(2, phone);
                    ps2.setInt(3, age);
                    ps2.setString(4, accno);
                    int nora=ps2.executeUpdate();
                    if(nora==1)
                    {
                         System.out.println("Profile Updated
");
                    }
                    else
                    {
                         System.out.println("Some Problem
Occured Please Try Again...");
                    }
               }
               else
               {
                    System.out.println("Invalid User or
Password Please Try agian..");
               }
          }
          catch(Exception e)
          {
               e.printStackTrace();
          }
     }


     @CodeWriter(developer="UMA",task="This Performs
CheckProfile")
@Override
     public void checkProfile()
     {
          try{
```

```
                String sql="select * from kodnestbank where
accno=? and password=?";
                PreparedStatement ps=con.prepareStatement(sql);
                System.out.println("Enter Your Account
Number");
                String accno=scan.next();
                System.out.println("Enter Your Password");
                String password=scan.next();
                ps.setString(1, accno);
                ps.setString(2, password);
                ResultSet rs=ps.executeQuery();
                if(rs.next())
                {

System.out.println("++++++++++++++++++++++++++++++++++++++++++
+++++++");
                     System.out.println("FOLLOWING ARE YOUR
DETAILS");
                     System.out.println("accno=
"+rs.getString(1));
                     System.out.println("Password=
"+rs.getString(2));
                     System.out.println("Name=
"+rs.getString(3));
                     System.out.println("Amount=
"+rs.getInt(4));
                     System.out.println("Age= "+rs.getInt(5));
                     System.out.println("Email=
"+rs.getString(6));
                     System.out.println("Phone=
"+rs.getString(7));

System.out.println("++++++++++++++++++++++++++++++++++++++++++
+++++++");
                }
                else
                {
                     System.out.println("Invalid User or
Password Please Try agian..");
                }
           }
           catch(Exception e)
           {
                e.printStackTrace();
```

```
            }
      }


@Override
      public void delete()
      {
            try{
                  con.setAutoCommit(false);
                  String sql="select * from kodnestbank where
accno=? and password=?";
                  PreparedStatement ps=con.prepareStatement(sql);
                  System.out.println("Enter Your Account
Number");
                  String accno=scan.next();
                  System.out.println("Enter Your Password");
                  String password=scan.next();
                  ps.setString(1, accno);
                  ps.setString(2, password);
                  ResultSet rs=ps.executeQuery();
                  if(rs.next())
                  {
                        String sql1="delete from KODNESTBANK where
accno=?";
                        PreparedStatement
ps1=con.prepareStatement(sql1);
                        ps1.setString(1, accno);
                        int nora=ps1.executeUpdate();
                        if(nora==1)
                        {
                              con.commit();
                              System.out.println("Account
Deactivated...You can login and check ...");
                        }
                        else
                        {
                              con.rollback();
                        }
                  }
                  else
                  {
                        System.out.println("Invalid User or
Password Please Try agian..");
                  }
            }
            catch(Exception e)
```

```
            {
                  e.printStackTrace();
            }
      }
}
```

---

OmkarBnak.java

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.Scanner;
//@SuppressWarnings("unused")
public class OmkarBank implements Bank {
      private Connection con=null;
      private Scanner scan=new Scanner(System.in);
      public static OmkarBank ref=null;
      public static OmkarBank getInstance()
      {
            if(ref==null)
            {
                  ref=new OmkarBank();
            }
            return ref;
      }
      private OmkarBank() {
            String path="oracle.jdbc.driver.OracleDriver";
            String url="jdbc:oracle:thin:@//localhost:1521/XE";
            String user="system";
            String password="system";
            try{
            Class.forName(path);
            con=DriverManager.getConnection(url,user,password);
            }
            catch (Exception e)
                  { e.printStackTrace()
                  ;
            }

      }

      @CodeWriter(developer="Omkar",task="This Performs
Registration")
      public void register()
```

```
	{
		try{
			System.out.println("Enter Accno");
			String accno=scan.next();
			System.out.println("Enter Password");
			String pwd=scan.next();
			System.out.println("Enter Confirm Password");
			String cpwd=scan.next();
			System.out.println("Enter Name");
			String name=scan.next();
			System.out.println("Enter Amount");
			int amt=scan.nextInt();
			System.out.println("Enter Age");
			int age=scan.nextInt();
			System.out.println("Enter Email");
			String email=scan.next();
			System.out.println("Enter Phone Number");
			String phone=scan.next();

if(accno.length()!=10||pwd.equals(cpwd)==false||name.length()<
3||amt<=0||age<18||email.length()<10||phone.length()!=10)
			{
			System.out.println("Registration
Unsuccessful...please Retry...");
			}
			else
			{
			String sql="insert into OmkarBank
values(?,?,?,?,?,?,?)";
			PreparedStatement ps=con.prepareStatement(sql);
			ps.setString(1, accno);
			ps.setString(2, pwd);
			ps.setString(3, name);
			ps.setInt(4, amt);
			ps.setInt(5, age);
			ps.setString(6, email);
			ps.setString(7, phone);
			int nora=ps.executeUpdate();
			if(nora==1)
			{
				System.out.println("Registration
Successful");
			}
			else
```

```
                {
                     System.out.println("Some Issue Occured
Please Contact Nearest Branch..");
                }
                }
           }
           catch(Exception e)
           {
                e.printStackTrace();
           }
     }

     @CodeWriter(developer="Omkar",task="This Performs Login")
     public void login()
     {
          try{
                String sql="select * from OmkarBank where
accno=? and password=?";
                PreparedStatement ps=con.prepareStatement(sql);
                System.out.println("Enter Your Account
Number");
                String accno=scan.next();
                System.out.println("Enter Your Password");
                String password=scan.next();
                ps.setString(1, accno);
                ps.setString(2, password);
                ResultSet rs=ps.executeQuery();
                if(rs.next())
                {
                     System.out.println("Login Success.……");
                     System.out.println("Your Balance Is
"+rs.getInt("amount"));
                }
                else
                {
                     System.out.println("Invalid User or
Password Please Try agian..");
                }
           }
           catch(Exception e)
           {
                e.printStackTrace();
           }
     }
```

```
     @CodeWriter(developer="Omkar",task="This Performs
ChangePassword")
     public void changePassword()
     {
          try{
               String sql="select * from OmkarBank where
accno=? and password=?";
               PreparedStatement ps=con.prepareStatement(sql);
               System.out.println("Enter Your Account
Number");
               String accno=scan.next();
               System.out.println("Enter Your Password");
               String password=scan.next();
               ps.setString(1, accno);
               ps.setString(2, password);

               ResultSet rs=ps.executeQuery();
               if(rs.next())
               {
                    String sql2="update OmkarBank set
PASSWORD=? where accno=? and PASSWORD=?";
                    PreparedStatement
ps1=con.prepareStatement(sql2);
                    System.out.println("Enter new Password");
                    String newpwd=scan.next();
                    System.out.println("Confirm new
Password");
                    String cnewpwd=scan.next();
                    if(newpwd.equals(cnewpwd))
                    {
                    ps1.setString(1, cnewpwd);
                    ps1.setString(2, accno);
                    ps1.setString(3, password);
                    int nora=ps1.executeUpdate();
                    if(nora==1)
                    {
                         System.out.println(nora);
                         System.out.println("Password Updated
");
                    }
                    else
                    {
```

```
                              System.out.println("Some Problem
Occured PLease try Again.……");
                         }
                         }
                         else {

                              System.out.println("New password and
confirm new password is not matching");
                         }

                    }
                    else
                    {
                         System.out.println("Old Accno and Pwd is
Invlaid...");
                    }
               }
               catch(Exception e)
               {
                    e.printStackTrace();
               }
          }

          @CodeWriter(developer="Omkar",task="This Performs
TransferAmount")
          public void transferAmount()
          {
               try{
                    String sql1="update OmkarBank set
amount=amount-? where accno=? and password=?";
                    String sql2="update OmkarBank set
amount=amount+? where accno=? ";
                    con.setAutoCommit(false);
                    PreparedStatement
ps1=con.prepareStatement(sql1);
                    PreparedStatement
ps2=con.prepareStatement(sql2);
                    System.out.println("Enter from accno");
                    String faccno=scan.next();
                    System.out.println("Enter Password");
                    String fpwd=scan.next();
                    System.out.println("Enter To accno");
                    String taccno=scan.next();
                    System.out.println("Enter Amount To Transfer");
```

```
                int amt=scan.nextInt();

                ps1.setInt(1, amt);
                ps1.setString(2, faccno);
                ps1.setString(3, fpwd);

                int nora1=ps1.executeUpdate();

                ps2.setInt(1, amt);
                ps2.setString(2, taccno);

                int nora2=ps2.executeUpdate();

                System.out.println(nora1+" "+nora2);
                if(nora1==1 && nora2==1)
                {
                     con.commit();
                }
                else
                {
                     con.rollback();
                }
           }
           catch (Exception e)
                {try{ con.rollba
                ck();
                System.out.println("Some Problem In Server
...Dont Worry Your Money Is SAFE WITH KODNEST BANK.……");
                }catch (Exception e1)
                     { e1.printStackTrace()
                     ;
                }
           }

     }

     @CodeWriter(developer="Omkar",task="This Performs
CheckBalance")
     public void checkBalance()
     {
          try{
                try{
                     String sql="select * from OmkarBank where
accno=? and password=?";
```

```
                    PreparedStatement
ps=con.prepareStatement(sql);
                    System.out.println("Enter Your Account
Number");
                    String accno=scan.next();
                    System.out.println("Enter Your Password");
                    String password=scan.next();
                    ps.setString(1, accno);
                    ps.setString(2, password);
                    ResultSet rs=ps.executeQuery();
                    if(rs.next())
                    {
                         System.out.println("Your Balance Is
"+rs.getInt("amount"));
                    }
                    else
                    {
                         System.out.println("Invalid User or
Password Please Try agian..");
                    }
               }
               catch(Exception e)
               {
                    e.printStackTrace();
               }
          }
          catch(Exception e)
          {
               e.printStackTrace();
          }

     }



     @CodeWriter(developer="Omkar",task="This Performs
Updation Profile")
     public void updateProfile()
     {
          try{
                    String sql="select * from OmkarBank where
accno=? and password=?";
                    PreparedStatement
ps=con.prepareStatement(sql);
```

```
                    System.out.println("Enter Your Account
Number");
                    String accno=scan.next();
                    System.out.println("Enter Your Password");
                    String password=scan.next();
                    ps.setString(1, accno);
                    ps.setString(2, password);
                    ResultSet rs=ps.executeQuery();
                    if(rs.next())
                    {
                         System.out.println("Pleasse Update
Your Profile");
                         String sql1="update OmkarBank set
EMIAL=?, phone=?, age=? where accno=?";
                         System.out.println("enter new
email");
                         String email=scan.next();
                         System.out.println("Enter new
phone");
                         String phone=scan.next();
                         System.out.println("Enter new Age");
                         int age=scan.nextInt();

                         PreparedStatement
ps2=con.prepareStatement(sql1);
                         ps2.setString(1, email);
                         ps2.setString(2, phone);
                         ps2.setInt(3, age);
                         ps2.setString(4, accno);
                         int nora=ps2.executeUpdate();
                         if(nora==1)
                         {
                              System.out.println("Profile
Updated ");

                         }
                         else
                         {
                              System.out.println("Some Problem
Occured Please Try Again...");
                         }
                    }
                    else
                    {
```

```
                        System.out.println("Invalid User or
Password Please Try agian..");
                    }
                }
                catch(Exception e)
                {
                    e.printStackTrace();
                }


}
    @CodeWriter(developer="Omkar",task="This Performs
Deletion")
    public void delete()
    {
        try{
            con.setAutoCommit(false);
            String sql="select * from OmkarBank where
accno=? and password=?";
            PreparedStatement ps=con.prepareStatement(sql);
            System.out.println("Enter Your Account
Number");
            String accno=scan.next();
            System.out.println("Enter Your Password");
            String password=scan.next();
            ps.setString(1, accno);
            ps.setString(2, password);
            ResultSet rs=ps.executeQuery();
            if(rs.next())
            {
                String sql1="delete from OmkarBank where
accno=?";
                PreparedStatement
ps1=con.prepareStatement(sql1);
                ps1.setString(1, accno);
                int nora=ps1.executeUpdate();
                if(nora==1)
                {
                    con.commit();
                    System.out.println("Account
Deactivated...You can login and check ...");
                }
                else
                {
```

```
                    con.rollback();
                }
            }
            else
            {
                System.out.println("Invalid User or
Password Please Try agian..");
            }
        }
        catch(Exception e)
        {
            e.printStackTrace();
        }
    }


    @CodeWriter(developer="Omkar",task="This Performs
Updation Profile")
    public void checkProfile()
    {
        try{
            String sql="select * from OmkarBank where
accno=? and password=?";
            PreparedStatement ps=con.prepareStatement(sql);
            System.out.println("Enter Your Account
Number");
            String accno=scan.next();
            System.out.println("Enter Your Password");
            String password=scan.next();
            ps.setString(1, accno);
            ps.setString(2, password);
            ResultSet rs=ps.executeQuery();

            if(rs.next())
            {

System.out.println("++++++++++++++++++++++++++++++++++++++++
+++++++");
                System.out.println("FOLLOWING ARE YOUR
DETAILS");

                System.out.println("accno=
"+rs.getString(1));
```

```
                    System.out.println("Password=
"+rs.getString(2));
                    System.out.println("Name=
"+rs.getString(3));
                    System.out.println("Amount=
"+rs.getInt(4));
                    System.out.println("Age= "+rs.getInt(5));
                    System.out.println("Email=
"+rs.getString(6));
                    System.out.println("Phone=
"+rs.getString(7));

System.out.println("++++++++++++++++++++++++++++++++++++++++++
+++++++");
               }
               else
               {
                    System.out.println("Invalid User or
Password Please Try agian..");
               }
          }
          catch(Exception e)
          {
               e.printStackTrace();
          }
     }

}
```

---

BankFactory.java

```
public class BankFactory {
     public Bank getBank(String name) {
          if(name.equals("kodnest")) {
               return KodnestBank.getInstance();
          }
          else {
               return OmkarBank.getInstance();
          }
     }
}
```

---

BankApp.java

```
import java.util.Scanner;
```

```
public class BankApp {
     public static void main(String[] args)
          { Scanner scan = new Scanner(System.in);
          System.out.println("Where do you have your
Acoount?");
          String bankname = scan.next();
          BankFactory bankf = new BankFactory();
          Bank ref = null;
          if(bankname.equals("kodnest"))
               { ref=(KodnestBank)bankf.getBank("kodnest");
               System.out.println("WELCOME TO KODNEST BANK");
          }
          else {
               ref=(OmkarBank)bankf.getBank( "omkar");
               System.out.println("WELCOME TO OMKAR BANK");
          }

          while(true) {
               System.out.println("Choose From Below Menu");
               System.out.println("1========>REGISTRATION");
               System.out.println("2========>LOGIN");
               System.out.println("3========>CHECK BALANCE");
               System.out.println("4========>TRANSFER
AMOUNT");
               System.out.println("5========>UPDATE
PASSWORD");
               System.out.println("6========>UPDATE PROFILE");

               System.out.println("7========>CHECK PROFILE");
               System.out.println("8========>DELETE ACCOUNT");
               System.out.println("9========>STOP");

               System.out.println("ENTER YOUR CHOICE");
               int choice = scan.nextInt();
               switch(choice) {
               case 1:
                    ref.register();
                    break;
               case 2:
               ref.login();
                    break;
               case 3:
                    ref.checkBalance();
                    break;
```

```
                case 4:
                     ref.transferAmount();
                     break;
                case 5:
                     ref.changePassword();
                     break;
                case 6:
                     ref.updateProfile();
                     break;
                case 7:
                     ref.checkProfile();
                     break;
                case 8:
                     ref.delete();
                     break;

                default:
                     System.out.println("Thank You For Using
Kodnest Online Bnak Services...Tata Bye Bye.……");
                     System.exit(0);
                }
           }
      }
}
```

---

Bank.java

```
public interface Bank {
     void register();
     void login();
     void changePassword();
     void transferAmount();
     void checkBalance();
     void updateProfile();
     void delete();
     void checkProfile();
}
```