**Sequence Diagrams**

User Registration Sequence

User

frmRegistration

BL:cls\_User

DAL:cls\_SqlHelper

Database

1 : Get Registration Form

2 : insertUserData ()

3 : ExecuteNonQuery ()

4 : ExecuteStoredProcedure()

6 : Response()

7 : Response for InsertUserData()

Login Sequence

User

LoginPage

AuthenticationService()

DAL:SqlHelper()

Database

1 : Open Login Form

2 : ValidateUser()

3 : ExecuteNonQuery()

4 : ExecuteStoredProcedure()

5 : Return QueryResult()

6: ResponseForValidateUser()

Admin Sequence to Add Book Categories

Admin

frm BookCategories

BAL:clsBooks

DAL:clsSqlHelper

DataBase

1 : Enter Data

2 : Insert Category()

3 : ExecuteNonQuery()

4 : ExecuteStoredProcedure()

5 : Response()

6 : Show Result()

**Admin Sequence to Add BookDetails**

Admin

frmBookDetails

BAL:clsBooks

DAL:clsSqlHelper

DataBase

1 : Enter Book Details

2: Insert Book Details()

3 : ExecuteNonQuery()

4 : ExecuteStoredProcedure()

5 : Response()

6 : Show Result()

**Customer Sequence to View Books**

Customer

frmBooksList

BAL:clsBooks

DAL:clsSqlHelper

DataBase

1 : Select Category

2 : GetBooks()

3 : ExecuteDataset()

4 : ExecuteStoredProcedure()

5 : Response()

6 : Show Result()

**Customer Sequence to Order Books**

Customer

frmOrder

BAL:clsBooks

DAL:clsSqlHelper

DataBase

1 : Select Books

2 : OrderBooks()

3 : ExecuteNonQuery()

4 : ExecuteStoredProcedure()

5 : Response()

6 : Show Result()

**General User Sequence to Search Books**

User

frmHome

BAL:clsBooks

DAL:clsSqlHelper

DataBase

1 : Enter Title./Author/Publisher

2 : Get Books()

3 : ExecuteDataset()

4 : ExecuteStoredProcedure()

5 : Response()

6 : Show Result()

**Collaboration Diagrams**

**Login**

User

frmLogin

BAL:clsLogin

DAL:clsSqlHelper

DB

1 : Enter UserId,Pwd()

2 : Insert Data()

3 : ExecuteNonQuery()

4 : ExecuteStoredProcedure()

5 : Response()

Admin Collaboration to Add Categories

Admin

frm Book Categories

BAL:clsBooks

DAL:clsSqlHelper

DB

1 Enter Data

2 : Insert Category()

3 : ExecuteNonQuery()

4 : ExecuteStoredProcedure()

5 : Response()

Admin Collaboration to **Add Book Details**

4 :Execute StoredProcedure()

Admin

frmBookDetails

BAL:clsBooks

DAL:clsSqlHelper

DataBase

1 : Enter Book Details

2 : Insert BookDatails()

3 : ExecuteNonQuery()

5 : Response()

**Customer Collaboration to View Books**

Customer

frmBooksList

BAL:clsBooks

DAL:clsSqlHelper

DB

1 : Select Category

2 : Get Books ()

3 : ExecuteDataset()

4 : ExecuteStoredProcedure()

5 : Response()

**Customer Collaboration to Order Books**

Customer

frmOrder

BAL:clsBooks

DAL:clsSqlHelper

DB

1 : Select Books

2 : Order Books()

3 : ExecuteNonQuery()

4 : ExecuteStoredProcedure()

5 : Response()

**General User Collaboration to Search Books**

User

FrmHome

BAL:clsBooks

DAL:clsSqlHelper

DB

1 : Enter Title/Author/Publisher

2 : Get Books()

3 : ExecuteDataset()

4 : ExecuteStoredProcedure()

5 : Response()