CHAPTER 8

BANKING APPLICATION BY INTEGRATING HETEROGENEOUS COMPONENTS

8.1 INTRODUCTION

A banking application has been developed in this chapter to demonstrate the concept of interoperability through the tool PIS as described in chapter 6. This application is developed with basic banking processes such as Withdraw, Registration and Money Transfer. This application is realized through the integration of the heterogeneous components developed in EJB and .NET. This application can be accessed by Java and .NET clients.

8.2 DEVELOPING BANKING APPLICATION

The Banking Application has been developed using Java, C#, WebLogic and JSP. In this application, EJBs have been created for the processes withdraw and Registration and a .NET component has been created for the process Money Transfer. EJBs are deployed in BEA Web Logic Server. Using Application Server PE, the JSP files which are used for this web-based application development are registered.
8.3 IMPLEMENTATION

Two option links have been created in the home page of this application.

MainServer1
MainServer2

The link MainServer1 allows Java client to access all the processes of banking Application such as withdraw, Money Transfer and Registration. And the link Mainserver2 allows .NET client to access all the processes withdraw, Money Transfer and Registration.

A database table in the name of Acctdet has been created using Access. Using the PIS the configuration process is done only once. The Home page of the banking application is shown as Figure 8.1.

Figure 8.1 Home Page of the banking application
Both Java and .NET clients can have the same application with the components for withdraw, Money Transfer and Registration for new accounts. Java client can have the access with this banking application by clicking through the link Mainserver1.

*MainServer1 (Java Client)*

By clicking on the option link *MainServer1*, the login form for Java client will be displayed. The screen shot of login form is shown below:

![Login Form](image1)

*Figure 8.2 Login form for java client*

*Services for Java Client*

The following services are provided for java client in this banking application.

- Money Transfer
- Withdraw
- New Registration
The service Money Transfer is done through .NET component. And the services Withdraw and New Registration are done through EJB components. The service screen shot for java client is shown in Figure 8.3.

![Service Screen for Java Client](image)

**Figure 8.3** Service Screen for Java Client

*Withdraw*

This service is done through EJB component. The following screen shots show the withdraw service forms and the Database table.

![Withdraw Transaction](image)
New Registration

This service is done through EJB component. The following screens show the New Registration service for java client. A new account had been created through this service. The following screen shots show the Registration form, Registration status and new account in Database table.
Figure 8.4 Database table with new account
Money Transfer

This service is provided through .NET component. Both Java and .NET clients can have the access with this component. Through this service the money can be transferred from one account from another. The following two screen shots show the money transfer service of Java client.
**MainServer2(.NET Client)**

Similarly .NET client can have the same banking application by clicking the option Main Server2 in Home Page of the Banking Application.
Figure 8.5 Login Screen for .NET Client

Following screen shot shows the services of the Banking application to the .NET client.

Figure 8.6 Service Screen for .NET Client
Withdraw Service for .NET Client

To have the withdraw service, click on `withdraw` link option in service window. By clicking on `withdraw` link option the following screen shot will be displayed.
Money Transfer Service for .NET Client

To have the Money Transfer service, click on ‘Account Transfer’ link option in the service window. By clicking on ‘Account Transfer’ link option the following screen shot will be displayed. Similarly to have the new registration service, click on ‘Registration’ link option in the service window.

8.4 CONCLUSION

This Chapter describes creating a Banking Application with Key features Withdraw, Money Transfer and New Registration through heterogeneous components. Withdraw and New Registration components are created in EJB and ‘Account Transfer’ Component is created in .NET. Integration of these heterogeneous components are done using PIS tool as described in Chapter 6. The resulting Banking transactions are shown in appropriate screen shots.