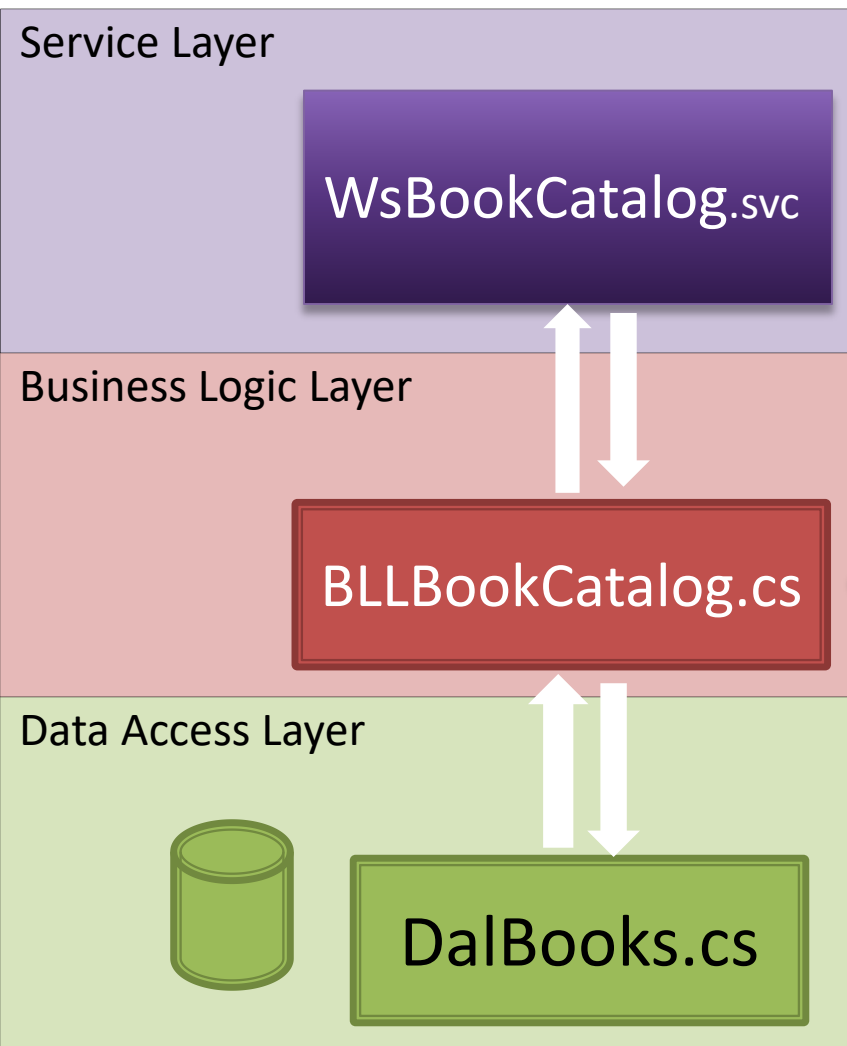


IT2605

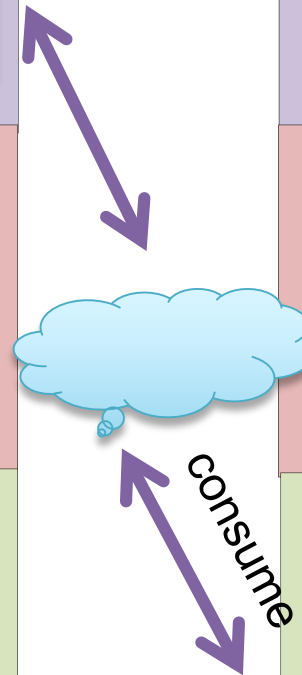
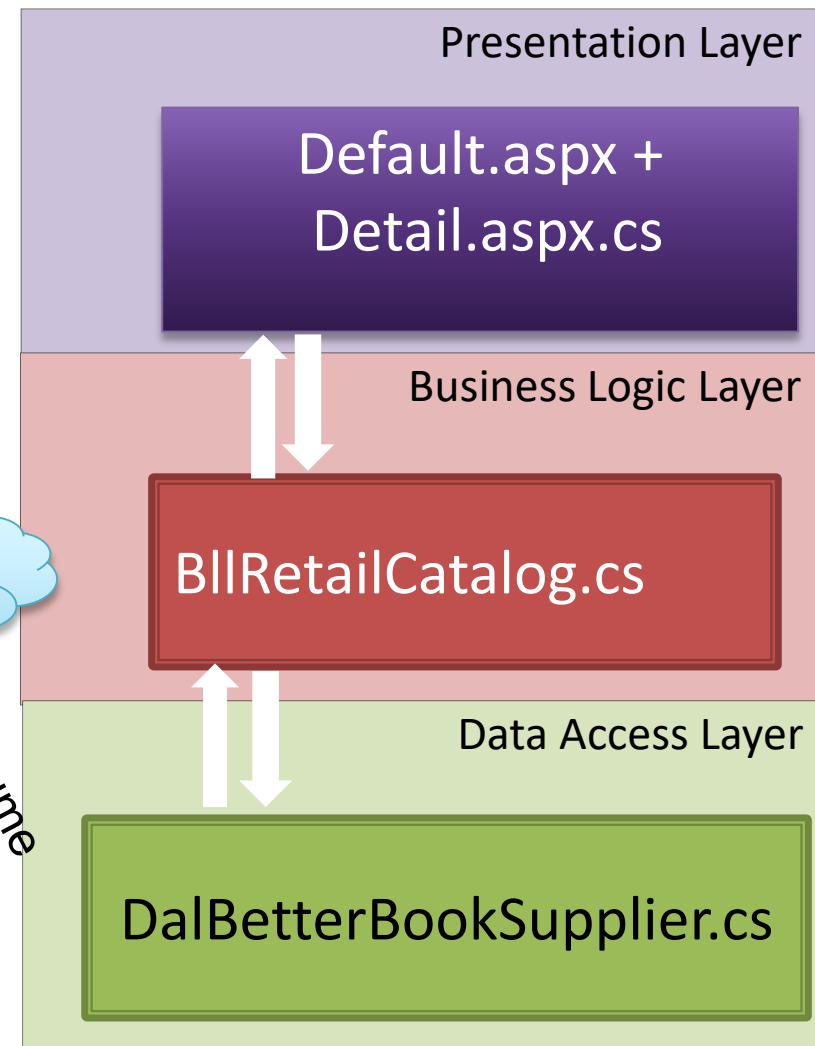
Applications of Web Services

P05 Three-Tier Architecture

Better Book Supplier

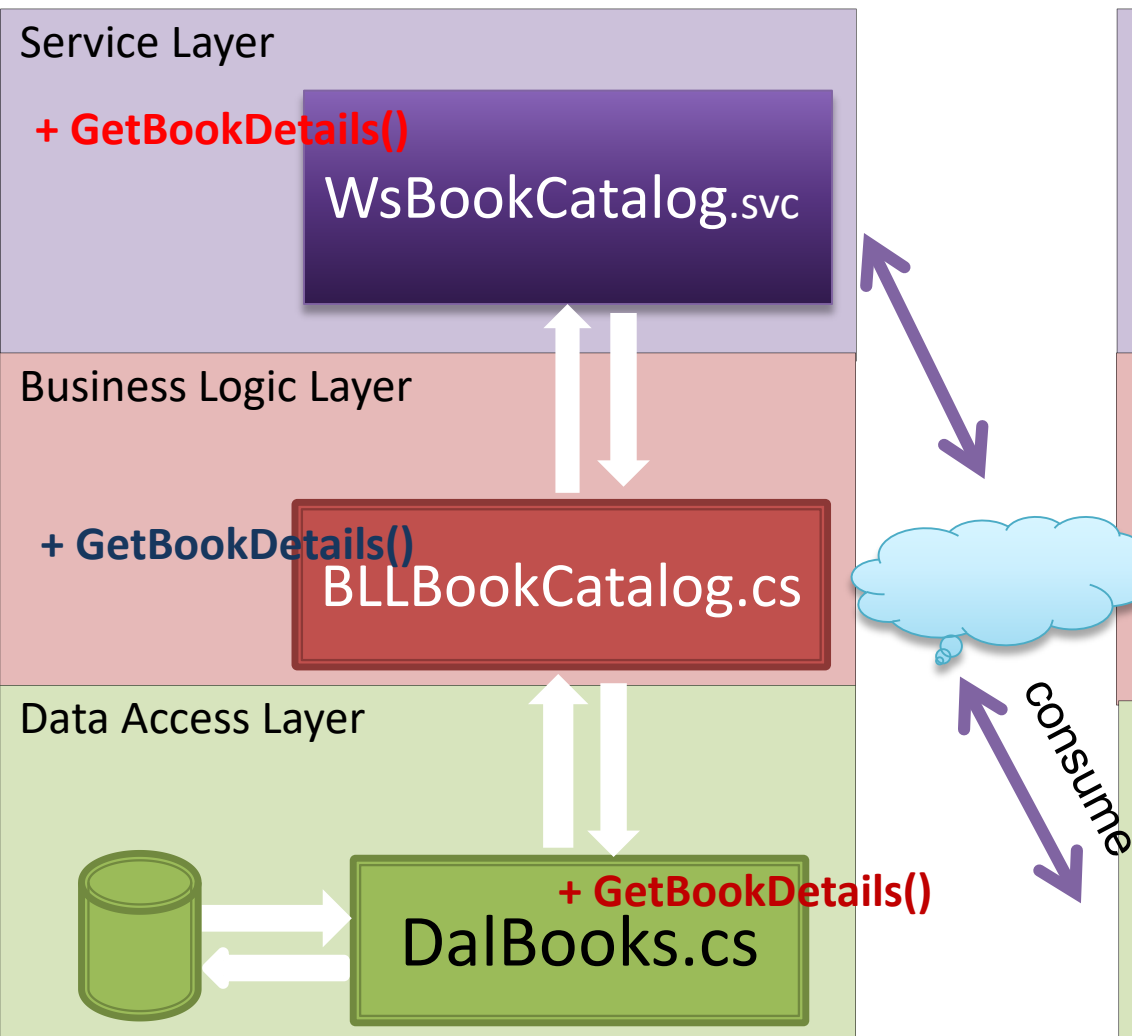


ACME Bookshop

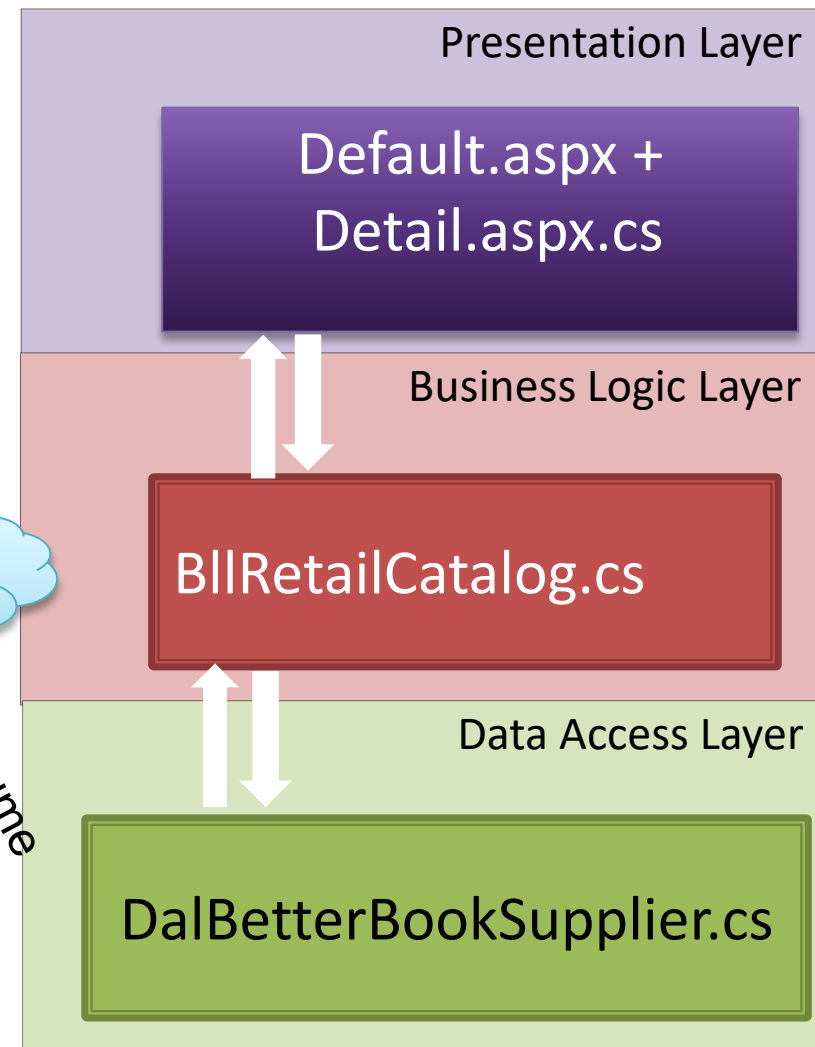


consume

Better Book Supplier



ACME Bookshop



BBS DAL - GetBookDetails

```
public DataSet GetBookDetails(int bookId)
{

}
```

The code is similar to GetAll(), copy the code from GetAll() to this method, then make additional changes to

Add a where clause in the SQL Select Query to retrieve record by parameter.

Add code to assign SQL parameter from the input argument of this method.



SQL command and SQL parameter

```
sql = new StringBuilder();
    sql.AppendLine("SELECT b.*, a.firstName, a.lastName, p.name,
i.filename");
    sql.AppendLine("FROM books b");
    sql.AppendLine("INNER JOIN author a ON a.id = b.authorId");
    sql.AppendLine("INNER JOIN publisher p ON p.id = b.publisherId");
    sql.AppendLine("LEFT OUTER JOIN images i ON i.id = b.bookCoverId");
    sql.AppendLine("WHERE B.id = @paraid");

try
{
    da = new SqlDataAdapter(sql.ToString(), conn);
    da.SelectCommand.Parameters.AddWithValue("paraid", bookId);
    da.Fill(booksData);
}
```



BBS BLL - GetBookDetails

```
namespace IT2605Prac05_BBS.BLL
{
    public class BLLBookCatalog
    {
        public DataSet GetBooks()
        {
            DalBooks dataLayerBooks;

            dataLayerBooks = new DalBooks();
            return dataLayerBooks.GetAll();
        }
        // add GetBookDetails from here
        public DataSet GetBookDetails(int bookId)
        {
            DalBooks dataLayerBooks;
            dataLayerBooks = new DalBooks();
            return dataLayerBooks.GetBookDetails(bookId);
        }
    }
}
```

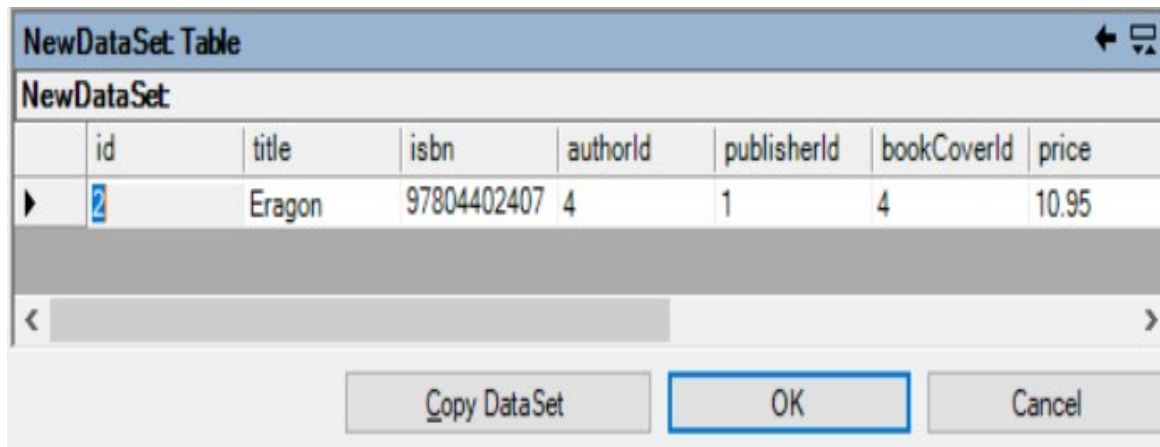


BBS WsBookCatalog - GetBookDetails

Attempt it yourself

Test the new operation with WCF Test Client.

You should obtain the data set when you provide 2 in book id



The screenshot shows a WCF Test Client window titled "NewDataSet: Table". It displays a data set for the "GetBookDetails" operation. The data set is a table with 8 columns: id, title, isbn, authorId, publisherId, bookCoverId, and price. The first row of data corresponds to book ID 2, which is "Eragon" by Eragon, with ISBN 97804402407, author ID 4, publisher ID 1, book cover ID 4, and a price of 10.95. The "id" column in the first row is highlighted with a blue selection bar. Below the table is a scroll bar. At the bottom of the window are three buttons: "Copy DataSet", "OK", and "Cancel".

	id	title	isbn	authorId	publisherId	bookCoverId	price
▶	2	Eragon	97804402407	4	1	4	10.95



ACME

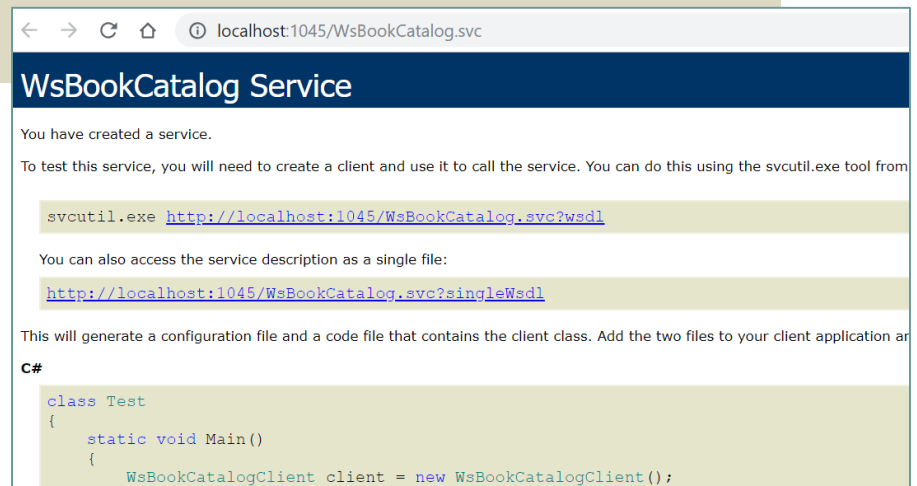
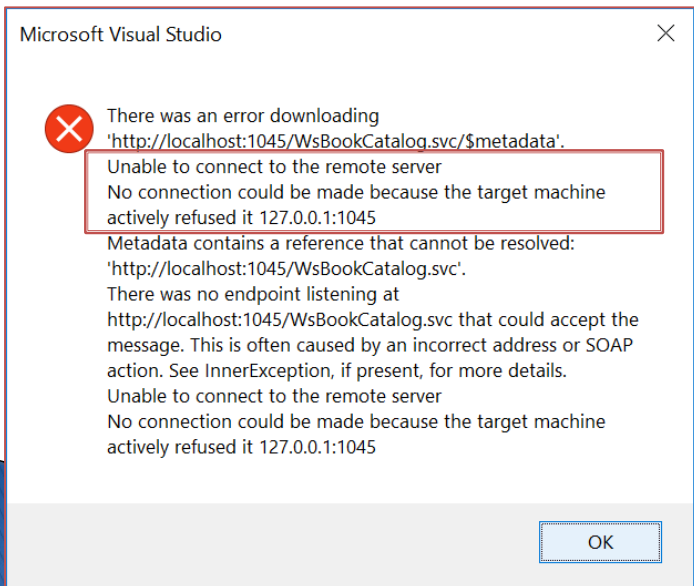
Service reference

- ▶ Update service reference or
- ▶ Delete and re-add the service reference

Because a new operation was added in WsBookCatalog

Make sure the BBS web service is launched in a separate visual studio

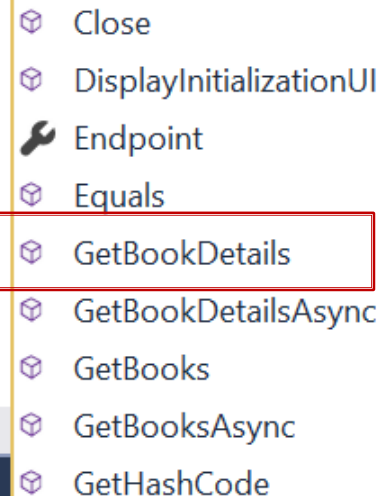
Run BBS web service



ACME DAL - GetBookDetails

⌵ reference

```
public DataSet GetBookDetails(int bookId)
{
    WsBookCatalogClient betterBookSupplierClient;
    betterBookSupplierClient = new WsBookCatalogClient();
    return betterBookSupplierClient.
}
```



A screenshot of an IDE's IntelliSense dropdown menu. The menu is open, showing a list of methods from the `WsBookCatalogClient` class. The methods listed are: `Close`, `DisplayInitializationUI`, `Endpoint` (with a wrench icon), `Equals`, `GetBookDetails` (highlighted with a red rectangle), `GetBookDetailsAsync`, `GetBooks`, `GetBooksAsync`, and `GetHashCode`. The menu has a scroll bar on the right and a search box at the top.

- Close
- DisplayInitializationUI
- Endpoint
- Equals
- GetBookDetails
- GetBookDetailsAsync
- GetBooks
- GetBooksAsync
- GetHashCode

Find Symbol Results Mapping Details Data Tools Operations



ACME BLL - getRetailBookDetails

- ▶ Copy the code from existing getRetailBooksList to make the change
- ▶ Invoke the GetBookDetails from DAL



Default.aspx – DataKeyName

er.cs* BllRetailCatalog.cs

Acme Bookshop

ContentPlaceHolder1 (Custom)

Books List

asp:GridView#GridViewBookList

ID	Title	Author	Publisher	ISBN	Price
Databound	Databound	Databound	Databound	Databound	Databound
Databound	Databound	Databound	Databound	Databound	Databound
Databound	Databound	Databound	Databound	Databound	Databound
Databound	Databound	Databound	Databound	Databound	Databound
Databound	Databound	Databound	Databound	Databound	Databound

Title	Databound
Author	Databound
ISBN	Databound
Publisher	Databound
Promotion Price	Databound
Cost Price	Databound

1. Select the gridview to open Properties window

2. Add DataKeyName

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Content#Content2> <asp:GridView#GridViewBoo...>

Properties

GridViewBookList System.Web.UI.WebControls.GridView

ShowHeaderWhenEmpty False

Behavior

AllowSorting False

AutoGenerateColumns **False**

AutoGenerateDeleteButton False

AutoGenerateEditButton False

AutoGenerateSelectButton False

ClientIDMode Inherit

Enabled True

EnableModelValidation True

EnablePersistedSelection False

EnableSortingAndPaging False

EnableTheming True

EnableViewState True

SkinID

ToolTip

ValidateRequestMode Inherit

ViewStateMode Inherit

Visible True

Data

(Expressions)

ClientIDRowSuffix

DataKeyNames id

DataMember

DataSourceID

DeleteMethod

DataSourceID

The control ID of an IDDataSource that will be used as th...

Default.aspx – Add select command

Books List
asp:GridView#GridViewBookList

ID	Title	Author	Publisher	ISBN	Price	
Databound	Databound	Databound	Databound	Databound	Databound	Select
Databound	Databound	Databound	Databound	Databound	Databound	Select
Databound	Databound	Databound	Databound	Databound	Databound	Select
Databound	Databound	Databound	Databound	Databound	Databound	Select
Databound	Databound	Databound	Databound	Databound	Databound	Select

Add Select
command

Double click select command to fire GridViewBookList_SelectedIndexChanged

```
protected void GridViewBookList_SelectedIndexChanged(object sender, EventArgs e)
{
}
```



Bind dataset to detail view

- ▶ Invoke BLL getRetailBookDetail
- ▶ Bind the returned dataset to detail view

Books List

ID	Title	Author	Publisher	ISBN	Price	
2	Eragon	Paolini	Laurel Leaf	9780440240730	\$19.90	Select
3	The Golden Compass	Pullman	Laurel Leaf	9780440238133	\$21.80	Select
1	Harry Potter and The Socerers Stone	Rowling	Scholastic Press	9780590353403	\$23.70	Select

id	3
title	The Golden Compass
isbn	9780440238133
authorId	3
publisherId	1
bookCoverId	6
price	11.95
rrp	22.95
firstName	Philip
lastName	Pullman
name	Laurel Leaf
filename	6_golden_compass.jpg
RetailPrice	21.8



No worry if you encounter this error. You may accidentally close BBS web service. Run it again.

Server Error in '/' Application.

No connection could be made because the target machine actively refused it 127.0.0.1:1045

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.Net.Sockets.SocketException: No connection could be made because the target machine actively refused it 127.0.0.1:1045

Source Error:

```
Line 65:  
Line 66:     public System.Data.DataSet GetBookDetails(int bookId) {  
Line 67:         return base.Channel.GetBookDetails(bookId);  
Line 68:     }  
Line 69:
```

Source File: F:\IT2605\AY2018 S2\Delivery\Week 05 - Implement 3 Tier App Part 2\IT2605 Prac05 Soln\IT2605Prac05_ACME\IT2605Prac05_ACME\Service References\SvcRefBetterBookSupplier1Reference.cs **Line:** 67

Stack Trace: