

Joining Two Collections Together



Paul D. Sheriff

Business/IT Consultant PDS Consulting

psheriff@pdsa.com

www.pdsa.com

Module Goals



- **Perform an equijoin (inner join) between collections**
- **Create one-to-many using group join**
- **Simulate a left outer join**

Inner Join

Equijoin / Inner Join

**An equijoin
(an inner join in
SQL)**

**Two or more
collections needed**

**At least one
property in each
must share equal
values**

Demo



– Inner join

Demo



- **Inner join with two fields**

Group Join



Group Join

**Create new object
with Sales
collection for each
Product**

**Query syntax uses
'join' and 'into'
keywords**

**Method syntax
uses GroupJoin()**

Sales for Each Product

Microsoft Visual Studio Debug Console

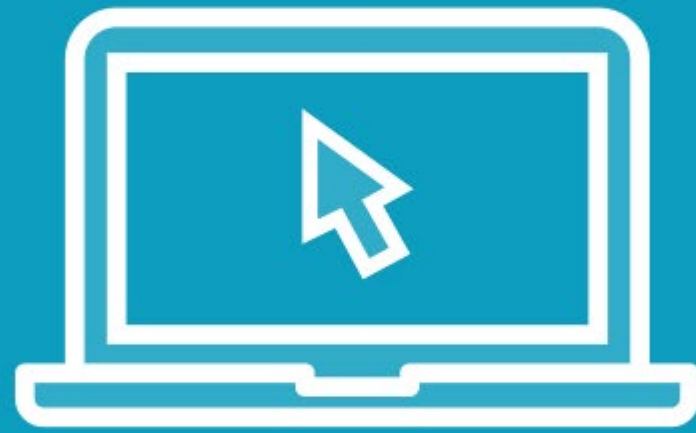
```
Product: HL Road Frame - Black, 58  ID: 680
Color: Black  Size: 58
Cost: $1,059.31  Price: $1,431.50
** Sales **
    SalesOrderID: 71774      Qty: 1      Total: 356.90
    SalesOrderID: 71776      Qty: 1      Total: 356.90

Product: HL Road Frame - Red, 58  ID: 706
Color: Red  Size: 58
Cost: $1,059.31  Price: $1,431.50
** NO Sales for Product **

Product: Sport-100 Helmet, Red  ID: 707
Color: Red  Size: n/a
Cost: $13.08  Price: $34.99
** Sales **
    SalesOrderID: 71780      Qty: 4      Total: 873.80

Product: Sport-100 Helmet, Black  ID: 708
Color: Black  Size: n/a
Cost: $14.09  Price: $35.99
** Sales **
    SalesOrderID: 71780      Qty: 2      Total: 923.38
```

Demo



– **Group join**

Left Outer Join

Left Outer Join

Inner join using 'into' and a second 'from' statement

A null object may be returned for "right" collection

Use DefaultIfEmpty() method for "right" collection

**Method syntax uses
SelectMany(), Where() and
DefaultIfEmpty()**

Demo



- **Left outer join**

Module Summary



- **Joins are easy to express in LINQ**
- **Syntax can be different from query to method syntax**
- **Use `DefaultIfEmpty()` to simulate outer join**

Up Next:

Creating Groups of Data Using GroupBy
