

# Determine Differences Between Two Collections



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# Module Goals



**Working with two collections**

**Are collections equal**

**Find values in one and not the other**

**Find all values in common**





# Equality



# SequenceEqual()

**Compares two collections for equality**

**Simple data types (int, decimal, etc.) - checks values**

**Object data types checks reference**

**Use comparer class to check values in properties**



# Uses of SequenceEqual()

**Read lines from two text files and see if they are the same**

**Read Color field from two different tables and see if values are equal**



# Uses of SequenceEqual()

**Read customer data from two different tables and use comparer to see if they are equal**

**Read columns from two tables in two different databases to see what is different**



## Demo



**SequenceEqual using integers**



## Demo



**SequenceEqual using object references**





## Demo



**SequenceEqual using a comparer class**





# Exceptions



# Except()

**Find all values in one list, but not the other**

**Returns the list of the exceptions**



# Except()

**Simple data types  
(int, decimal, etc.) -  
checks values**

**Object data types  
checks reference**

**Use comparer class  
to check values in  
properties**



# Uses of Except()

**Find those products  
that do not have  
sales**

**Find those  
customers that have  
not ordered  
ProductID 707**

**What data  
differences exist  
between QA and  
production  
databases**



## Demo



**Except using integers**



## Demo



**Find products that do not have sales**



## Demo



**Except using comparer class**





# ExceptBy()

**Find all values in one list, but not the other**

**Returns the list of objects that are different**

**Don't need a comparer class**



## Demo



**ExceptBy using key expression**



## Demo



**Find products that do not have sales**





# Intersection



# Intersect

**Find all values in common  
between two lists**

**Simple data types (int, decimal,  
etc.) - checks values**

**Object data types checks  
reference**

**Use comparer class to check  
values in properties**



## Demo



**Intersect using integers**



## Demo



**Find products that have sales**





## Demo



**Intersect using comparer class**





# IntersectBy()

**Find all values in  
common between  
two lists**

**Returns the list of  
objects that are the  
same**

**Don't need a  
comparer class**



## Demo



**IntersectBy using key expression**



# Demo



**Find products that have sales**



## Module Summary



**Easy to compare values between two collections**

**Simple data types = automatic checking**

**Object data types = need a comparer class**

**\*By() methods eliminate need for comparer class**



Up Next:

# Concatenate Collections Together Using Union and Concat

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