# The Building Blocks of the DataTable

**Paul D. Sheriff**

BUSINESS SOLUTIONS ARCHITECT, FAIRWAY TECHNOLOGIES, INC.

www.fairwaytech.com   psheriff@fairwaytech.com

# Module Goals

Create a DataTable from scratch

Clone and Copy a DataTable

Select rows from a DataTable

Copy DataTable row by row

Copy DataTable using built-in method

# Build DataTable

# Create DataTable

**Instantiate new DataTable**

**Add DataColumn to Columns collection**

**Specify properties for DataColumn (DataType, ColumnName, Caption, etc.)**
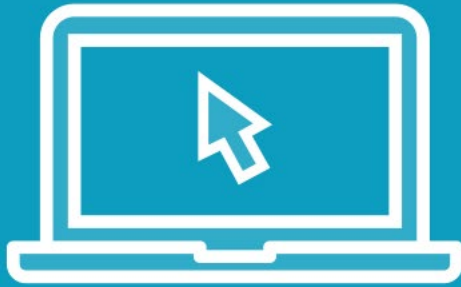
# Add Data to DataTable

**Call NewRow() on DataTable object**

**Set column names with appropriate data**

**Add row to Rows collection**

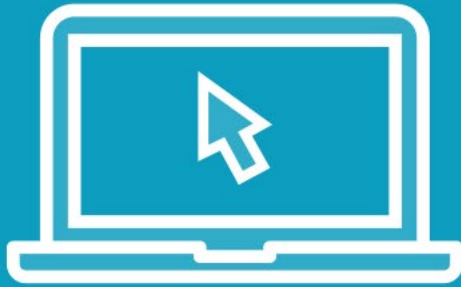# Demo

## Create DataTable from scratch

# Clone and Copy

**Clone() creates new DataTable with structure only**

**Copy() creates new DataTable with structure and data**

# Demo

**Clone and copy a DataTable**

# Select() Method

Select() filters row and creates array of DataRow objects
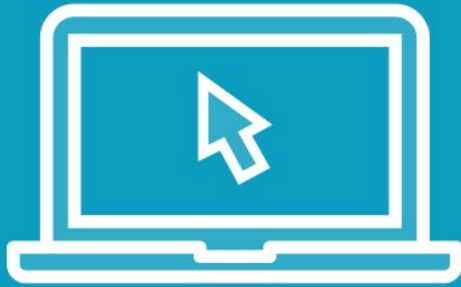
Loop through all rows

Create new DataTable using ImportRow()

Call AcceptChanges() when done

# Demo

**Select and copy data rows**
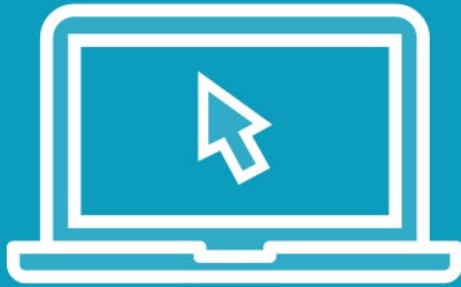
# CopyToDataTable() Method

**Select() rows to create array of DataRow objects**

**Create new DataTable using CopyToDataTable method**

No need to loop through each row

# Demo

**Use CopyToDataTable() method**

# Summary

**Can build DataTables from scratch**
- No need to connect to a database

**Add rows of data**

**Clone and copy**

**Select a subset of rows**

**Create new DataTable objects from existing objects**

**Coming up in the next module...**

Create/break apart connection strings

Create data modification statements