

# CSV and Data Table

# Reading CSV

```
1  using System;
2  using System.Data;
3  using System.IO;
4  using System.Linq;
5
6  namespace test
7  {
8      class Program
9      {
10         static string fullPath = "d:\\temp\\person100.csv";
11         static DataTable myTable;
12
13         static void Main(string[] args) ...
19         static void ReadCsv() ...
41         static void PrintTable() ...
52         static void PrintColumnNames(DataTable table) ...
59     }
60 }
```

```
static void ReadCsv()
{
    using (StreamReader sr = new StreamReader(fullPath))
    {
        myTable = new DataTable();
        string[] headers = sr.ReadLine().Split(',');
        for (int i = 0; i < headers.Count(); i++)
        {
            myTable.Columns.Add();
        }
        while (!sr.EndOfStream)
        {
            string[] rows = sr.ReadLine().Split(',');
            DataRow dr = myTable.NewRow();
            for (int i = 0; i < rows.Count(); i++)
            {
                dr[i] = rows[i];
            }
            myTable.Rows.Add(dr);
        }
    }
}
```

```
static void PrintTable()
{
    foreach (DataRow dataRow in myTable.Rows)
    {
        foreach (var item in dataRow.ItemArray)
        {
            Console.Write(item + ",");
        }
        Console.WriteLine();
    }
}

static void PrintColumnNames(DataTable table)
{
    foreach (DataColumn column in table.Columns)
    {
        Console.WriteLine(column.ColumnName);
    }
}
```

```
Column1  
Column2  
Column3  
Column4  
carolina,Basildon,England,United Kingdom,  
Betina,Parkville ,MO,United States,  
Federica e Andrea,Astoria ,OR,United States,  
Gouya,Echuca,Victoria,Australia,  
Gerd W ,Cahaba Heights,AL,United States,  
LAURENCE,Mickleton ,NJ,United States,  
Fleur,Peoria,IL,United States,  
adam,Martin,TN,United States,  
Renee Elisabeth,Tel Aviv,Tel Aviv,Israel,  
Press any key to continue . . .
```

# Set column name

```
static void SetColumn(DataTable table)
{
    table.Columns[0].ColumnName = "Name";
    table.Columns[1].ColumnName = "City";
    table.Columns[2].ColumnName = "State";
    table.Columns[3].ColumnName = "Country";
}
```

# Set column properties

```
static void AddColumn(DataTable table)
{
    DataColumn column;
    column = new DataColumn();
    column.ColumnName = "SupplierID";
    column.DataType = System.Type.GetType("System.String");
    column.Unique = true;
    column.AutoIncrement = false;
    column.Caption = "SupplierID";
    column.ReadOnly = false;
    // Add the column to the table's columns collection.
    table.Columns.Add(column);
}
```

# Excercises