**DataSet关系图**

DataSet

DataRow

DataColumn

DataTable

**创建DataSet**

DataSet dataSet = new DataSet();  
DataTable studentTable = new DataTable("Students");  
studentTable.Columns.Add(new DataColumn("Id", typeof(int)));  
studentTable.Columns.Add(new DataColumn("Name", typeof(string)));  
studentTable.Columns.Add(new DataColumn("BirthDate", typeof(DateTime)));  
studentTable.Columns.Add(new DataColumn("Age", typeof(int)));  
studentTable.Columns.Add(new DataColumn("StudentGroup", typeof(int)));  
dataSet.Tables.Add(studentTable);

DataTable scoreTable = new DataTable("Scores");  
scoreTable.Columns.Add(new DataColumn("Id", typeof(int)));  
scoreTable.Columns.Add(new DataColumn("Grade", typeof(int)));  
scoreTable.Columns.Add(new DataColumn("Subject", typeof(string)));  
scoreTable.Columns.Add(new DataColumn("StudentId", typeof(int)));  
dataSet.Tables.Add(scoreTable);

**关系配置**

dataSet.Relations.Add("StudentsToScores",

dataSet.Tables["Students"].Columns["Id"],

dataSet.Tables["Scores"].Columns["StudentId"]);

配置关系后可以通过GetChildRows()访问子表或GetParentRows(),GetParentRow()访问父表

foreach (DataRow studentDataRow in dataSet.Tables["Students"].Rows)  
{  
 DataRow[] scoreDataRows = studentDataRow.GetChildRows("StudentsToScores");  
}

**遍历DataTable**

foreach (DataRow studentDataRow in dataSet.Tables["Students"].Rows)  
{  
 Console.WriteLine($"Id={studentDataRow[0]}; Name={studentDataRow[1]}");

DataRow[] scoreDataRows = studentDataRow.GetChildRows("StudentsToScores");  
 foreach (DataRow scoreDataRow in scoreDataRows)  
 {  
 Console.WriteLine($"Id={scoreDataRow[0]}; Grade={scoreDataRow[1]}");  
 }  
}