**C# Advanced**

**Стекове(stack)**

**bool exists = stack.Contains(2);**

stack.Push/Pop/Peek

**Опашки(queue)**

**bool exists = queue.Contains(2);**

Queue.Enqueue/Dequeue/Peek

**Матрици(Multidimensional Arrays)**

Колони

Редове [][][][][][][][][][]

[][][][][][][][][][]

**int[,] intMatrix; 🡨 това са квадратни/правоъгълни матрици**

**float[,] floatMatrix;**

**string[,,] strCube;**

Назъбени матрици 🡪 **int[][] jagged = new int[3][];**

**jagged[0] = new int[3];** **jagged[1] = new int[2];** **jagged[2] = new int[5];**

**int currProduct = (row + 1) \* (col + 1); 🡸 Смята поле под номер**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **0** | **1** | **2** | **3** |
| **0** | **7** | **3** | **4** | **2** |
| **1** | **5** | **1** |  |  |
| **2** | **9** | **3** | **1** |  |

**Стриймове**

* Two types of streams
  + Text readers/writers – **StreamReader** / **StreamWriter**
    - Provide methods **.ReadLine()**, **.WriteLine()** (similar to working with **Console.\***)

**using (var reader = new StreamReader("../../Program.cs"))**

**{using (var writer = new StreamWriter("../../reversed.txt"))**

**{**

**string line = reader.ReadLine();**

**while (line != null)**

**{**

**for (int i = line.Length - 1; i >= 0; i--)**

**{**

**writer.Write(line[i]);**

**}**

**writer.WriteLine();**

**line = reader.ReadLine();}}}**

**Функционално програмиране**

Index в Stack и Queue 🡪 Array.IndexOf(масив от елементи, конкретен елемент)

Императивен начин е с foreach/for и обхождане, а функционалния с Linq и функции, методи.