

C# and Microsoft .NET

Files and Streams



Trainer: Georgi Panayotov
E-mail: smg@smg-bg.net
Phone / Viber: +359877347912



Last time...

- Delegates and Lambda Expressions
- Homework?
- Bonus lectures
 - November 26th (Monday)
 - November 28th (Wednesday)
- Any questions and/or feedback?

Streams

- What is a Stream
 - How does the stream work?
 - Streaming video vs. streaming strings?
- Streams in .NET
 - System.IO namespace
 - The abstract Stream class
 - BufferedStream, FileStream, MemoryStream, GZipStream, NetworkStream, etc.

Console Stream

- The Console class
- Input streaming – `Console.ReadLine()`
- Output streaming – `Console.WriteLine(..)`
- Redirecting the standard output
 - Redirecting output
 - Creating a new file: `program.exe > file.txt`
 - Appending to existing file: `program.exe >> file.txt`
 - Redirecting input
 - `program.exe < file.txt`

File Streams

- The FileStream class
- FileMode enumeration
 - Create
 - CreateNew
 - Open
 - OpenOrCreate
 - Append
 - Truncate

- FileAccess enumeration
 - Read
 - ReadWrite
 - Write
- FileShare enumeration
 - None
 - Delete
 - Read
 - Write
 - ReadWrite

Text Readers

- The TextReader abstract class
- The StreamReader class
 - The ReadToEnd and ReadLine methods
 - The EndOfStream property
- Closing Streams and Readers
 - Unmanaged resources
 - **Using** keyword

Text Writers

- What is a Stream Writer
- The TextWriter abstract class
- The StreamWriter class
 - The Write and WriteLine methods
- Closing Streams and Writers
 - Unmanaged resources
 - **Using** keyword

Exception Handling

- IOException exception
 - FileNotFoundException
 - DirectoryNotFoundException
 - etc.

Paths

- Absolute path vs. Relative path
- Current working directory
 - <Project>\bin\Debug (default)
 - Environment.CurrentDirectory
- The . and .. directives
- Path static class
 - Combine(...)
 - etc.

File System

- Iterating over directories files
 - File static class
 - Directory static class
 - FileSystemInfo abstract sclass
 - DirectoryInfo class
 - FileInfo class

Questions?

