

OpenText interview challenge (XML->HTML conversion).

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Intro.

The solution was implemented for Windows only (Win10).

To build the solution: Visual Studio 2019 is required.

The binaries can be built from command line – using provided CMD file.

The main (root) directory is: *XmlToHtml1* .

Binary.

OTInterviewExercise1.exe is the main EXE. It's located in *exe* sub-dir (of the main directory).

The (primary) command line should be:

OTInterviewExercise1.exe <pathname-of-input-XML-file>

HTML output is printed to *stdout*.

Error messages are printed to *stderr*.

If invoked without parameters or with (the only) *-h* parameter – help page will be displayed.

Build (command-line)

Batch file *build-all.cmd* should be invoked without any parameters. It builds the binaries (x86 and x64 – debug and release) and places them in sub-dirs of *Output* directory (*Output* directory will be deleted, if exists, and then recreated by the build). Build logs are also placed in *Output* directory.

Source code.

Visual Studio solution file: *OTInterviewExercise1.sln* – is stored in main dir.

The solution file uses 2 project files:

OTInterviewExercise1.vcxproj – in *win* sub-dir;

SystemTests.vcxproj – in *systemtests* sub-dir;

Source code for the main project (*OTInterviewExercise1.vcxproj*) is located in 2 directories: the main directory and *win* sub-dir. Source code in the main directory is platform-independent, but source code in *win* sub-dir is Windows specific.

Compatibility.

The source code invokes Windows XML module: *MSXML6.dll* – for XML->HTML conversion. *MSXML6.dll* is part of standard Win10 installation. Microsoft could bump version number (6->7, etc.) in future Windows versions but compatibility will, most likely, be maintained.

Implementation.

During execution: XSLT transformation is applied to input XML - it produces output HTML. We use XSLT code stored in our EXE resources. File: *win\xslt\cat_items.xslt* – contains our XSLT code. That code will be inserted into our EXE by build.

The source code is C++ 14 compatible (except for sources in *win* sub-dir – where Windows-specific APIs are used).

System and unit tests.

System tests are executed by *SystemTests.exe*. Source code for system tests is in *systemtests* sub-dir.

Command-line build (as outlined above) builds *SystemTests.exe* in addition to *OTInterviewExercise1.exe*.