This document describes the **teamwork assignment** for Telerik Academy students in the **C# Programming – Part 1** course.

# Project Description

Create a test with questions on IT, similar to the ones given at the National Olympiad for Information Technologies (NOIT). The test should contain **20 questions**, each with at least **4 possible answers** and **only one correct answer**. Each of the 20 questions should follow the [20 topics](http://downloads.academy.telerik.com/svn/school-academy/Meeting-1-Intro-CSharp-November-2010/2.%20IT-Olympiad-Conspect-8-12-Class-February-2010.docx) (1 question per topic) covered in the test at NOIT.

## Requirements

These are the requirements for the IT test you are going to create.

* **Think up and write a question on each of the following topics:** 
  1. Computer systems (hardware)
  2. Computer programs (software)
  3. Rules for working with and supporting computer systems
  4. Means of data transfer in IT, Numeral systems
  5. Operational Systems
  6. Software engineering and project development
  7. Compressing and decompressing data
  8. Text processing software and file formats
  9. Computer graphics
  10. Databases
  11. Information systems
  12. Security
  13. Presentation making & Presentation skills
  14. Multimedia
  15. Computer networks
  16. Internet
  17. Electronic communication and e-mail
  18. The World Wide Web global information system
  19. Web Front-end and Design
  20. Web scripting languages (JavaScript, Perl, etc.)
* Description of each of the above topics: <http://downloads.academy.telerik.com/svn/school-academy/Meeting-1-Intro-CSharp-November-2010/2.%20IT-Olympiad-Conspect-8-12-Class-February-2010.docx> (in the same order)
* **For each question you must have:**
  + The plain text of the question itself (i.e. “What is a motherboard?”)
    - Images and schematics are optional
  + At least four possible answers – a), b), c), d)
  + Only one correct answer
  + A brief description of the answer, along with links for further reading
  + A Bulgarian and English variant (i.e. two separate files for the English IT Test and the Bulgarian IT Test)
* **Format of the IT test**
  + The end result of your work should be two PowerPoint files
    - A Bulgarian version of the test
    - An English version of the test
  + You can use [this](http://downloads.academy.telerik.com/svn/school-academy/IT-Tests-Collection/0.%20IT-Test-Questions-Template.pptx) file as a template, or use [this](http://downloads.academy.telerik.com/svn/school-academy/IT-Tests-Collection/25.%20Sample-IT-Test-April-2013.pptx), or [this](http://downloads.academy.telerik.com/svn/school-academy/Meeting-29-JavaScript-Fundamentals/0.%20Sample-IT-Test-October-2013.pptx) file and directly replace questions.
  + On the first slide, in the lower left, place “Team ” and the name of your team

You should try to **think up new questions** and **not use existing questions** from other IT tests.

## Additional Requirements

**Learn**. The point of this assignment is for you to browse through the web (or other resources), read and learn about IT and broaden your culture and understanding of the technical world. Just writing down a question is easy, but thinking, reading and researching topics, to create a question which teaches the test-taker something of value is the hard part – and the most beneficial for you and them.

**Pride in craftsmanship.** Most people don’t care too much about formatting and aligning their text and images, keeping fonts and colors consistent, but you aren’t “most people”, are you? You are better than that and you want to create something, which you will be proud to look at later – well formatted, with enough images to clarify information (if needed) and useful to others. And you don’t need to be a designer to do that.

**Teamwork**. Sure, you can all just pick some of the topics and start working separately, then just merge the PowerPoint files. But the assignment also gives a lot of opportunities for teamwork – we’ll leave that to you however, without giving you hints.

**Don’t make “historical” questions**. We are IT people, not historians. “Which year did Ubuntu come out” is a dumb question from an IT perspective – it brings absolutely no value to the work of a software engineer and requires memorizing information, instead of understanding it. This doesn’t mean all date-related questions are bad – if the question is related to the order of significant events in IT, or asks about a period of time for a significant event in IT, it could be ok (e.g. “Which came first – Windows NT or Windows 95” is an ok question).

**Don’t make too-specific questions**. Your questions should be on a low-to-mid level of difficulty per topic. Think about it this way – you can’t be a master at all of the 20 topics in the IT test and know every small detail. So asking “Is interleaving vertex data better than using separate objects when creating VBOs in OpenGL” is a bad question, but asking “Where is a Vertex Buffer Object kept in memory (RAM, GPU, …)” is an ok question (maybe still a bit too specific).

## Deliverables

Put the following in a **ZIP archive** and submit it (each team member submits the same file):

* The two PowerPoint files – English and Bulgarian IT test (same questions, translated)
  + Each team member submits the same archive

## Project Evaluation

Each team will have to deliver a **public defense** of its work in front of the other students and trainers. You will have **only 10 minutes** for the following:

* **Show the questions and answers** and explain them briefly

Please be **strict in timing**! Be **well prepared** for presenting the maximum of your work for the minimum time. Bring your own laptop. Test it preliminary with the multimedia projector. Open the project assets beforehand to save time. You have **10 minutes**, no more.