CSCI 578 – COURSE PROJECT

Deadline: by 9 a.m. on Friday, May 5, 2017

<mark>Submission Information:</mark> Please submit on D2L (details near the end of this document). Please note that this assignment will require us to green-light your project. You will have to submit an overview of what you are planning to do by April 13.

15-minute project demos will take place on Friday, May 5, between 10am and 4pm. Further details of the location and a sign-up sheet will be provided.

WHAT THIS ASSIGNMENT IS ABOUT

This is the team project you waited for – you get to select your team and your project, and try to wow us with its architecture and implementation.

TEAM MEMBER SELECTION

Each team will have 3 or 4 members.

Your team will need to have a good balance of the following skills:

1. Programmer: Writes the code for a system.
2. Architect: Determines the architecture of a system.
3. User/Manager: Comes up with the requirements for a system and evaluates whether the implemented system fulfills the requirements.

Teams need to be finalized by the time the project overview has to be submitted (see "Deliverables").

SELECT YOUR PROJECT

Although the previous three assignments focused on architecture recovery, you are free to select any project that has a significant architectural element. This may include working on the ARCADE tool, on specific architecture recovery methods, visualization tools (all of which you have worked on so far), or on other open-source projects (distributed/cloud computing, data storage solutions, mobile apps, etc.).

The following general types of projects are acceptable:

- Functional enhancements to existing projects/systems
- Development of new projects/systems

The following types of projects are NOT acceptable:

- Bug fixes
- Straightforward enhancements to one or more of your assignments

Before you get started on a project, it will have to be green-lit by us. For this, we'll need a description from you that lets us determine whether

1. The project is achievable for your team before the deadline, and
2. Whether it allows you to come up with a new architecture or enhancements to an existing one.

The description should be no shorter than one page and no longer than two pages, with 1-inch margins, of single-column, single-spaced text, using 12-point Times New Roman font. Any figures and tables must fit within the two pages. If we cannot agree on a project within the time frame, we will assign a project to your team.

Selecting a project is not easy. It will require research, thought, and discussion within the team. Project proposals that are carefully thought-out, creative, and ambitious, will receive higher grades than projects that were largely or completely specified by us.

DELIVERABLES

You will need to submit a 1-2 page overview of your project before midnight of April 13. This should let us determine the scope of your project. We will get back to you by the 14th and either

- Give your project the go-ahead without changes,
- Give your project the go-ahead along with recommended changes, or
- Assign a different project to you.

Please submit the following on D2L:

CODE

(Should be in one of the programming languages that were acceptable for HW3. If you would like to use a different language, please consult with us.)

A ZIP file containing

- The source code of your project,
- A compiled version of your project that is runnable on at least one of
  - The CS 578 Ubuntu VM,
  - Windows 10,
  - macOS Sierra,
  - iOS 10.x,
  - Android 7.x
- All necessary external tools and libraries in compiled form, and
- A short file named README_<Team Name>_<Project Name>.txt with instructions on how to compile your project (or stating that no compilation is necessary if that is the case)

ARCHITECTURE DESCRIPTION

A description of the architecture you came up with for the project, and how you implemented it.

This needs to be a PDF of a write-up. There is no minimum requirement for the number of words. We will not read beyond 2500 words.

GRADING

Your project will be graded by the following criteria:

- 10% :Creativity, ambitiousness, and scope of your project.
- 5%: Your ability to meet your major goals as stated in your project proposal.
- 35%: The quality and aptness of your architectural solution to the problem you are tackling.
- 40%: Your resulting system that implements your solution.
- 10%: The quality of your project demo.

Extra credit: The two teams whose projects impress us the most will get extra credit. The team in first place will get 30% extra credit, while the second place will get 15%. Please note that the extra credit is completely up to our discretion and no regrading requests for it will be entertained.

LATE SUBMISSIONS:

- Up to 48 hours after the deadline: 1% off for each hour late
- More than 48 hours after the deadline: No submissions accepted anymore