CS 489 Proposals

1 Git Tutorial and Interactive Lab (1 student)

GitHub usage is a must for CS 319 term project. The objective of this teaching project is to introduce the students of CS 319 course with intermediate usage of Git and related practices. A tutorial and an virtual lab to gain hands-on experience will be delivered. Also, this project aims to improve means of Git usage evaluation for CS 319 term project.

The student is expected to do an extensive research on the usage practices of Git. There is already a set of slides from previous year, you are expected to update this set. Then, the student is expected to prepare an interactive virtual laboratory assignment. This assignment will contain a hand-tailored repository that consists of simulated real world situations. Students will be asked to perform the given set of tasks on this repository. The tasks will be designed to test the student's knowledge and abilities of Git after attending the tutorial.

The tentative timeline for the project is as follows:

1. **3rd week of the semester** 2 class hours of tutorial and virtual lab (per each of the three CS 319 sections)

2. **4th week of the semester** Interactive Virtual Lab Assessment (per each of the three CS 319 sections)

3. **4th week of the semester** First survey

4. **Last week of the semester** Running the evaluation script and performing second survey

2 Design Pattern Tutorial and Interactive Lab (1 student)

Software design pattern is a general, reusable solution to a commonly occurring problem within a given context in software design. Design patterns is a crucial subject in software architecture and CS 319 course. The objective of this teaching project is to introduce the students of CS 319 course with practical usage of design patterns. A tutorial and an virtual lab to gain hands-on experience will be delivered.

The student is expected to do an extensive research on the Design patterns. Then you are expected to provide a tutorial of design patterns including two complete code examples of design patterns (such as Strategy and Adapter Design pattern).

The tentative timeline for the project is as follows:

1. **9th week of the semester** 2 class hours of tutorial and virtual lab (per each of the three CS 319 sections)

2. **10th week of the semester** Interactive Virtual Lab Assessment (per each of the three CS 319 sections)

3. **10th week of the semester** First survey

Please check http://www.cs.bilkent.edu.tr/ korpe/CS489/ for eligibility. If you are interested, please send me an email with your CV and transcript (eraytuzun@cs.bilkent.edu.tr)