

Project Proposal Guideline

The goal of the project is to deepen your knowledge in one area of computer systems research. You are expected to perform work which could eventually be suitable for publication in a major operating systems conference; **indeed, each year one or two projects end up becoming published works in some major OS conference!**

Project write-ups will be similar in format to a conference submission, and all will be entered into a class-wide mini-conference. You are highly encouraged to think of a project on your own, which I can then help to refine. I will publish a list of potential topics in our 9/12/2017 class. I will also suggest a few papers for you to start with in pursuing your topic.

Neither I nor TA can provide you detailed tutorials about how to finish your project because you are expected to challenge yourself in this course. You are required to set the goals, set the milestones, divide the workload, and code by yourself (you may be confused at first but you will figure it out if you really put efforts into it.)

Tips:

1. Think of a topic that you like and learn how to survey the related work about this topic, e.g., type the keyword in <http://dl.acm.org/dl.cfm?CFID=981159594&CFTOKEN=16632589> to find out the related work.
2. Think of a small problem to solve rather than a big one. However, make sure the problem is as concrete as possible.
3. Types of the project are various such as performance comparisons of certain systems, building a new function to already existing systems, bug analysis and the like. However, you need to code and show the executable demo in our final presentations.
4. **Start as early as possible!**

A good proposal usually consists of the following parts. **Please be prepared to answer those questions in our face-to-face meetings.** If you do not prepare the answers in mind, your idea is in the track of being denied. Sorry :<

1. **A motivation and a use case scenario.** Why do you want to do this? Why is it useful? How is it different from related work? A use case scenario shows how your research can be applied. Therefore, bring an example to our proposal discussion.

2. **Project Goals and Objectives/Deliverables.** What do you want to accomplish? This should include a clear list of deliverables you will produce as part of the project.
3. **Project Scope.** For example, if you are implementing some part of a system, show which parts you are doing for the project and which parts are outside the scope of the work to be done. How you plan to implement it?
4. **Experimental Evaluation.** What the metrics you are going to measure? How many machines you are going to use? What is the input and what will be the output? What indicators will there be to show you have met the goals of the project?

About proposal grading criteria:

All groups should use the WORD or LATEX template downloaded from the above link. Failing to do that will result in **-10 points**.

The template for proposal can be downloaded at:

<http://www.acm.org/publications/proceedings-template>

How to grade the proposal:

1. **40 points.** Use a concrete example (with pictures) showing the motivation of your project. Why you wanna do this? Why it is useful?
2. **20 points.** Explain the related work and especially show why related work cannot solve your project.
3. **10 points.** Describe your contributions. What is the project Goals and Objectives/Deliverables?
4. **20 points.** Describe your design briefly. How you gonna implement your system?
5. **10 points.** Formatting in a good way. No typo. Good writing.

The size requirement is 1-2 pages.

I attach a sample paper as a reference (please read page 1 and page 2 as the example for your proposal).