TCSS 562: Software Engineering for Cloud Computing
Fall 2021
http://faculty.washington.edu/wlloyd/courses/tcss562

School of Engineering and Technology
University of Washington – Tacoma
Instructor: Wes Lloyd

Term Project Report
Version 0.1

Due Date: Friday December 17th, 2021 @ 11:59 pm

Objective
To capture the results of your TCSS562 term project, each team should submit up to a four-page project report summarizing your serverless application implementation approach and the ensuing case study results. Case studies examine trade-offs of alternate design decisions. Trade-offs are typically evaluated using performance, throughput, and cost evaluation metrics to quantify results of the alternate design approaches.

Please use the provided ACM template to format your project report.

The template can be found here:

MS Word Template:
https://faculty.washington.edu/wlloyd/courses/tcss562/project/acm-word-template-f2021.docx

PDF Template:
https://faculty.washington.edu/wlloyd/courses/tcss562/project/acm-word-template-f2021.pdf

Template Instructions:
https://faculty.washington.edu/wlloyd/courses/tcss562/project/acm-word-template-f2021-instructions.docx

For the Latex template, or for the source template files, see this website:
https://www.acm.org/publications/proceedings-template

The Template Instructions describe how to approach writing each section of the paper and what to include. Please review the Template Instructions for suggestions on how to assemble your research paper. The major sections are:

   I. Introduction
       A. Research Questions
            i.   Research Question #1 (RQ-1)
            ii. Research Question #2 (RQ-2)
   II. Comparison Study
       A. Design Tradeoffs
       B. Application Implementation
       C. Experimental Approach
   III. Experimental Results
       A. Results of experiments for RQ-1

B.   Results of experiments for RQ-2
C.   Analysis and Discussion of Results
IV.   Conclusions
A.   Summary
B.   Future Work – if applicable
V.   References

In TCSS 562, we focused primarily on implementing a serverless application and conducting a case study to compare alternate design tradeoffs. The case study evaluation then involved running experiments to evaluate performance, throughput, and cost implications. The term project paper serves to capture the results of your work. Papers are not expected to be highly "polished" at this stage, however, they must provide a clear explanation of your project and include the relevant results.

Given the compressed timeframe of the course, if your data and experiments are complete and presented well with supporting tables and graphs, but the narrative in the paper still needs work, but the work shows promise, the group will likely receive a good grade.

Groups who have produced very high quality papers will be encouraged to pursue the project further after the class and submit a paper to an IEEE or ACM workshop or conference. The instructor will work with students to craft a high quality presentation for the conference/workshop. The instructor will work to arrange travel support for students whose papers are accepted for publication to attend the conference.   For online conferences, the instructor will make arrangements to support conference registration fees, etc. if the paper is accepted.

2022 Workshop Opportunity

The timing of TCSS 562 works well to submit papers to a cloud computing workshop focused on performance evaluation/engineering. These papers are due around January 20, 2022. Interested students should contact the instructor for additional information. These papers are either 4 pages (short) or 8 pages (full).

Questions

Please contact the instructor for questions and advice on how to approach writing the term paper. The approach to writing the term paper is a common approach which allows students to practice writing research papers. These skills are applicable to writing *any* research paper.

Submission Deadline

Project term papers should be submitted in PDF format on Canvas no later than 11:59pm on Friday December 17th.

Change History

Version	Date	Change
0.1	12/2/2021	Original Version