Final Project

Thank you for participating in CSC4160. We encourage you to apply the knowledge you've gained to this final project. You can work on the project in groups of up to three students. At the end of this course, you will need to submit a final report and a demo video.

Topic Selection

This is an open-ended project. You can select any topic related to cloud computing systems, and develop a technical, business, or research project. Here are some example topics:

- Analyzing public cloud traces (e.g., AWS Public Datasets, Google Cluster Workload traces)
- Performance benchmarking of cloud services (e.g., EC2, Lambda)
- Building your own systems/applications using cloud services
- Performance optimizations of cloud services (e.g., based on open-source versions)
- Topics in cloud competitions are welcome (e.g., Alibaba Tianchi)

Checkpoints and Grading Criteria

This project accounts for 30% of your final grade. Here are the key checkpoints to keep in mind:

- By October 22, 2024, at 23:59, you need to submit a proposal [2 points]. In this proposal, describe your topic and provide some background information. It will be graded on how clearly it is presented. If you wish to change your topic after this checkpoint, please contact us.
- By November 17, 2024, at 23:59, you need to submit a midterm report [6 points]. This report should include a roadmap or outline for your project, along with some preliminary results. It will be graded on the completeness of the outline [3 points] and the progress shown in your preliminary results [3 points].
- By December 15, 2024, at 23:59, you need to submit a final report [10 points] of up to 5 pages, along with a demo video [12 points]. The report should be clear and concise, ensuring that your ideas are easily understood. It will be graded on the motivation for your topic and your approach [2 points], the technical soundness of your implementation [3 points], the quality of your project evaluation [3 points], and the overall presentation of the report [2 points]. The demo video should showcase how your project works. It will be graded on real-time presentation of your project [6 points], the clarity and simplicity of presentation [4 points], and the fluency and coherence of your delivery [2 points].

Remember to include the information of all group members in the submitted materials.