Final Project

Cloud Computing

Project Weight in Course Grade: 40 points

Overview

Thank you for participating in CSC6109/CSC5038. This project is an *individual* assignment—you must complete it on your own. Please apply the knowledge you've gained throughout the course. By the end of the course, you will submit a **final report** (along with any materials specified in the guidelines).

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 (e.g., Alibaba Tianchi)

Timeline & Deliverables

All deadlines are 23:59 (local time) on the dates listed.

Deadline	Deliverable	Weight	Key Requirements & Grading Focus
Oct 19, 2025	**Proposal**	**4 pts**	Topic description & background (clarity).
Nov 16, 2025	**Midterm Report**	**13 pts**	Roadmap/outline & preliminary results (initial experiments; prototype or benchmarks; feasibility).
Dec 14, 2025	**Final Report**	**18 pts**	Up to 5 pages: motivation & approach; technical soundness; evaluation; presentation quality.
Dec 14, 2025	**Codebase**	**5 pts**	Repo/archive; `README` quickstart; env file.

Checkpoints & Grading Criteria (Total: 40 pts)

1) Proposal — 4 pts

Deadline: Oct 19, 2025, 23:59.

Requirements:

- Describe your topic and provide background (focus on clarity).

Rubric (4 pts):

- Clarity & completeness **[4 pts]**

2) Midterm Report — 13 pts

Deadline: Nov 16, 2025, 23:59.
Requirements:

- Project roadmap/outline.
- Preliminary results (prototype or benchmarks), basic measurements/plots/tables.
- Challenges so far and feasibility evidence (e.g., minimal working demo, partial dataset analysis, or baseline comparison).
- Overall clarity, structure, and readability.

Rubric (13 pts):

- Roadmap/outline [**5 pts**]
- Preliminary results & feasibility [**6 pts**]
- Writing & presentation [**2 pts**]

3) Final Report — 18 pts

Deadline: Dec 14, 2025, 23:59.
Length: Up to 5 pages (main text).
Requirements:

- Clear motivation and concise approach description.
- System design & technical details; justification of design/implementation choices.
- Evaluation via experiments/benchmarks/analysis.
- Overall clarity, structure, and readability.
- Description of artifact in the report.

Rubric (18 pts):

- Motivation & approach [**3 pts**]
- Technical soundness [**4 pts**]
- Quality of evaluation [**5 pts**]
- Writing & presentation [**2 pts**]
- Artifact description & reproducibility [**4 pts**]

4) Codebase — 5 pts

Deadline: Dec 14, 2025, 23:59.
Requirements:

- Github repo (with access).
- `README.md` and expected outputs.
- Environment file or description.

Rubric (5 pts):

- Structure & readability (layout, naming, modularity) [**3 pts**]
- README document (clarity, completeness) [**1 pts**]
- Environment & dependency management [**1 pts**]

Administrative Notes

- If you wish to **change your topic after the Proposal**, please contact the teaching team in advance.