

## **Project 3: Term Project**

### **Problem Statement:**

#### **1 Motivation:**

A Term Project is the most essential part of this course. We set up the requirement for a term project in every one of our courses because of the following reasons:

- A course needs to have a core project experience. A courses may go very fast. Therefore, it is impossible to post too many projects. A good term project will help students to put all the knowledge they learn from this course into use.
- Term projects are usually good showcases in job interview activities.
- The starting date for the term project is the first day of the class. The due date is the last day of the class. Students have enough time to work on it.
- Proposal is due on week 10 but you may work on the term project much earlier

#### **2. Problem Ideas:**

Any project related to programming language tools will be acceptable. Here are the candidate projects. You may pick anyone from the following (but not limited to).

1. A Scheme Language Interpreter. <https://cs61a.org/proj/scheme/>
2. A single instruction assembler and runner (debugger). [https://youtu.be/o0e7\\_U7ZmBM](https://youtu.be/o0e7_U7ZmBM)
3. GEOJSON Visualizer <https://en.wikipedia.org/wiki/GeoJSON>

Programs developed for other courses or other purposes won't be accepted.

### **Schedule:**

- The project can start at any time after the course starts.
- In week 10, you will be required to submit a 100-point worth project proposal.
- In week 16, your project will be due, you will be required to submit all your deliverables before the end of the course. Late submission may not be graded. The final project submission is of 700-point worth.

### **Deliverables - Proposal:**

In week 10, a proposal should be submitted. In the proposal, you should include the following items:

1. project title and idea
2. project deliverables
3. tools
4. materials
5. schedule

### **Deliverables – Final Report:**

In week 16, a final report should be submitted.

- A final report in .docx or .pdf
- A presentation made by the student in
  - a PowerPoint,
  - google slides or
  - a YouTube link.
- All the technical files (program files, design schematics, etc.)

All materials can be grouped into a directory and be compressed to a .zip file. The YouTube video link is good enough. Do NOT send the whole video presentation file over to us.

**Grading Rubric:**

Components	Points Possible	Points Earned
Project Proposal (Due Week 10)	100	
Final Project Report		
Originality	100	
Creativity	100	
Completeness	100	
Technical Difficulty	100	
Technical Report in .docx, .pdf or google doc format	100	
Presentation (video, powerpoint or google slides)	100	
Implementation and Project Directory .zip file	100	
Total (Extra-points may be given to students)	700	