

CNIT 31500 – Team Project Outline

Purdue University

Fall 2023

1 Goals

The goal of the team project is two-fold. The first goal is the development and completion of a nontrivial system programming application, of your team's choosing. The second goal is learning, at least minimally, some of the interpersonal elements of working on a team.

2 Requirements

There are no set of strictly defined technical requirements for your projects. Each team will take an idea and develop the idea from concept to completion.

There are a few general requirements of your projects:

- The project must have a significant basis of systems programming in ANSI C, originally developed by the team.
- The project must run on Linux or a microprocessor with no OS present.
- There must be data structure or combination of data structures.
- The project must have a distributed element such as an external API. An example is an external time clock or Google Map, etc.
- Each component of code should have a developer and a tester/checker (second set of eyes to make sure no obvious errors are present).
- The application must have a unique, functional user interface.
- The team must perform an analysis of the efficiency and optimization of the system. This analysis will be shown in the final presentation and submitted as a report with the final submission documents.

3 Dates

- September 27th - Start to form teams and begin work on abstracts (Five people on a team).
- October 11th - Submit abstracts (1-2 paragraphs and team members).
- November 2nd - Submission of a detailed project description/specification document addressing each requirement (2-3 pages).
- December 5th - Video recording of presentations, submitted by all teams
- December 7th - Evaluation of presentations of assigned teams (3 per person)
- Finals Week, Wednesday - Submission of all project files and final project time sheet.

4 Presentation

Each team will submit a presentation of their project. The presentation should last about 10 mins. Detail on what should be included in the presentation will be posted after Week 9 (mid-October).

5 Final Submission

The following elements are expected to be submitted:

1. The abstract and project description.
2. Link to the video that you submitted and your slides.
3. Source code with associated program files.
4. Time reported.

6 Time reporting

- Task
- Date and time began
- Date and time completed
- Resolution – accomplished, abandoned, changed
- Who completed the task
- Who checked the task

- Total time required

You will need to provide a running time accumulations for the project and for each member of the project. The sheet will need to analyze the total time spent by each person as a percentage of the total team time. If someone is really high or low, you will need to analyze this and describe the reason in the time sheet. Unsatisfactory explanation will result in point deduction for the group members in question.

7 Grading

The grading will be split between the technical and interpersonal components.
Points: 100

- 50 pts – Technical elements
 - Abstract (10)
 - Design (10)
 - System (20)
 - Analysis (10)
- 50 pts – Interpersonal elements
 - Presentation (20)
 - Time sheets (15)
 - Presentation evaluation (5)
 - Team score (10)