COMPSCI 354: Final Project Guidelines

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The Final grade of the project based on

- Quality of the website
    - o setup instructions,
    - o samples,
    - o useful links,
    - o look-and-feel and
    - o ability to follow along for reviewers

- Quality of final project
    - o Demo in class during final presentation,
    - o final report,
    - o slides and
    - o well-documented source code

Here are the milestones for the final project in this class.

P1 – Create a website – Due 5th September

Create a website for the language that you have chosen as a team. The website should mention the name of your team and the language that you are working towards for this semester. The website can be made on free sites such as weebly.com, pbworks.com, Google sites or any other suitable website.

P2 – Language setup (IDE, installation, etc.) – Due 17th September

In this module, you are expected to create a detailed manual with screenshots or a YouTube video with details regarding installation, IDE setup and any other issue that may be relevant to your language. This module should be detailed enough for a novice to be able to get started on your language. If you have not already done so, please update your website with (i) a few sentences about the programming language (ii) names of members of your team.

P3 – Sample programs – Due 1st October

Update your website to include sample programs that a novice can download and use. At this point in your project, your website should include a minimum of 12 examples of increasing difficulty to teach a novice about that programming language. These examples should be original and must not be from any book, website, and so on. To improve your team's proficiency in that language, I would recommend that each team member write three programs in that language (one easy, one medium, one

advanced). Other team members should verify the programs for correctness and comments. This would easily lead to 15+ sample programs for your team and would avoid undue load on a subset of individuals.

P4 - Update website with resources – Due 15th October

This module will focus on improving your website to add resources that you have found useful so far. If your team keeps adding links to relevant resources, books, tutorials, videos, etc. as you work on previous modules, you will have no trouble with this module.

P5 – Project Proposal - Due 22nd October

Submit 3 project proposals to me by the deadline for this milestone. The anonymous reviewers and I do not want you to pick a project that is too hard or too easy and so we will pick one of the three for you to implement by the end of the semester. If all your project proposals are too hard/too easy, then we will propose a project for you. The project proposal is a formal document and should provide enough details about the project that you are proposing. Here is a suggested outline:

Title of the Project

Names of the team members
Goal - What are we going to do?
Approach
        What approach are we going to try?
        Why do we think it will work well?
Methodology
        What steps (task list) are required?
        Which of these steps is particularly hard?
        What to do if the hard steps don't work out?
Metrics
        How will we know when we are done?
        How will we know whether we have succeeded?
Summary

P6 – Project status presentation – Due 2nd November

As a team, you will make a 5-min presentation **in class** about your project. The presentation should include an overview of what you plan to do, what you have currently achieved, upcoming milestones and any roadblocks you are running into.

P7 - Incorporate feedback – 14th November

For this milestone, you should address the feedback that your reviewers and I have been giving you about the project website and the project. This is mostly to help you update the website before the final deadline.

P8 – Final presentation, report, source code, documentation – 10-14ᵗʰ December

The final presentation in class will be in the last week of classes. The order of presentation will be identified the week before the last week of classes. Each team will be allotted a **maximum of 20 minutes** for your presentation with 5 minutes for Q&A. You will lose points if you go over the allotted time. I would suggest that you practice your presentation multiple times to improve and to time yourselves. The presentation should follow the following outline:

- Introduction
    - Goal
    - What did we try to do?
- Approach
    - What approach(es) did we try?
    - Under what circumstances do we think it should work well?
    - Why do we think it should work well under those circumstances?
- Methodology
    - What pieces had to be implemented to execute our approach?
    - For each piece ...
        - Were there several possible implementations?
        - If there were several possibilities, what were the advantages/disadvantages of each?
        - Which implementation(s) did we do? Why?
        - What did we implement? <== Include detailed descriptions
        - What didn't we implement? Why not?
- Demo and Results
    - How did we measure success?
    - What experiments did we execute? Provide quantitative results.
    - What do our results indicate?
- Discussion
    - Overall, is the approach we took promising?
    - What different approach or variant of this approach is better?
    - What did we learn by doing this project?
    - What would we have differently if we were starting the project again?
- Conclusion

The final report should be up to 8-pages long and follow the same outline as the final presentation. Details that cannot be summed up in 20 minutes should be provided in the final report. Submitting the report in LaTeX will result in 10 extra credit points.

All the source code required to run the project, a 1-page user manual that contains detailed instructions on setting up and running the project, any other documentation

that is relevant along with the slides used in class are due on 14th December at 11:59pm.