Guide for Writing Project Proposals

This is a summary of how to write good, concise proposals for course projects. The focus of this summary is on programming or implementation projects, but the general ideas can be applied to most proposals. The recommended lengths of sections are given assuming a document length of 2 to 5 pages. Use appropriate scaling for longer proposal documents.

Sample Outline

The following is a sample outline for a project proposal. Note that all questions for a section may not apply to your proposal, and should be used as a general guide only.

- 1. **Introduction** (1 or 2 paragraphs)
 - Motivation Sentence
 - Summarize the problem (1 or 2 sentences)
 - Summarize the solution (1 or 2 sentences)
 - Describe format of rest of proposal (sections, etc.)
- 2. **Motivation** (1 to 3 paragraphs)
 - What is the history of the problem?
 - Why is this problem interesting?
 - When and why does the problem occur?
 - Is the problem already solved? What is done now?
 - Are there any similar systems or solutions to the one you propose? If so, reference and very briefly explain them.
 - Are there are possible improvements to current solutions?
- 3. **Project Summary** (1 paragraph)
 - What in general will this project achieve? (Do not delve into details or timelines.)
- 4. Project Details
 - Architecture and Environment (2-3 paragraphs + figures)
 - Describe the project environment (software, hardware, languages, organizations, etc.)
 - Diagrams and figures are useful here if appropriate.
 - What software, hardware, or tools will you use?
 - *Implementation Issues and Challenges* (2-3 paragraphs)
 - What will be the most difficult issues and challenges in the implementation?
 - How are you using or extending current tools/systems for your problem?
 - What makes your project unique?
 - *Deliverables* (3-5 paragraphs point-form may be used for some of the description)
 - What will the project produce? (program, report, etc.)
 - Describe in relative detail the features of each of the project's products.
 - You may wish to separate deliverables into phases and indicate optional components given time
 - Emphasize what your project contributes or achieves!
 - *Timeline* (1 paragraph point-form is suitable)
 - Provide an estimated timeline of project deliverables and important dates.
- 5. **Conclusion** (1 paragraph)
 - Summarize the project including the problem, motivation, and proposed solution, and re-state important (planned) contributions.

6. References

• List references used to compile proposal and references that will be used for project (if already known).

Additional References

- General Writing Tips
- Sample Proposal

