**Final Project Proposal Writeup Prompt**

For your final coding project, you will design and implement a software application that demonstrates your programming skills and knowledge of the concepts we’ve covered in class. To begin, you must submit a detailed project proposal that outlines your idea, the design, and the methodology you will use to bring it to life.

Your proposal should be a clear and professional write-up that addresses the following elements:

**1. Project Title and Overview**

* Provide a title for your project.
* Write a brief overview of your project idea (2-3 sentences).
  + What is the purpose of your project?
  + What problem does it solve, or what functionality does it offer?
  + Who is the target audience for this project?

**2. Functionality and Features**

* Describe the primary features and functionality your project will include.
  + What will your project do? Be specific about the tasks, actions, or outputs.
  + Are there any unique or advanced features you plan to implement?
* Explain how the user will interact with the project. Will it have a graphical user interface (GUI), command-line input, or web-based interaction?

**3. Design and Architecture**

* Describe the overall structure of your project. Include details about:
  + Any libraries, APIs, or external resources your project will rely on.
  + The data structures, algorithms, or techniques you plan to implement (e.g., arrays, linked lists, recursion, sorting, etc.).
* Include a brief explanation of how you will design your codebase to make it organized, scalable, and maintainable (e.g., use of classes, functions, modules, etc.).

**4. Methodology**

* Explain your plan for developing your project step by step.
  + What stages will you complete first, and how will you prioritize tasks? (e.g., designing the user interface, implementing core functionality, testing).
  + How will you test your code to ensure it works as intended? Describe the testing process or techniques you will use.
  + Do you foresee any challenges or obstacles in your development process? If so, how will you address them?

**5. Expected Outcome**

* Describe what the completed project will look like and how it will function.
* What are your success criteria? How will you know if your project is successful?

**6. Timeline**

* Provide a rough timeline for completing your project. Break it into key milestones (e.g., research and planning, initial coding, debugging, final implementation, and testing).

**Optional: Stretch Goals**

* If you finish your core project ahead of schedule, what additional features or enhancements might you add?

**Proposal Submission Guidelines**

* The proposal should be 1-2 pages long and written in clear, concise language.
* Format your document professionally with headings for each section.
* Submit your proposal by December 1, 20204.

**Grading Criteria**

Your project proposal will be evaluated based on the following criteria:

1. **Clarity and detail**: Is your proposal well-organized and thorough?
2. **Feasibility**: Is the project achievable within the given timeframe and resources?
3. **Creativity**: Does your project idea demonstrate originality or innovative thinking?
4. **Methodology**: Is your development process well thought out and realistic?