DesignDoc v2

Submit Assignment

Due Sunday by 11:59pm   **Points** 20   **Submitting** a file upload   **File Types** pdf

Available Mar 10 at 12am - Apr 12 at 11:59pm about 1 month

Design Document v2

The design document is now officially assigned. The design document template is available at **http://seniord.ece.iastate.edu/resources/Design_Document_Template.docx (http://seniord.ece.iastate.edu/resources/)** .

There are *four phases* to the design document:

- **v1,** due at the end of week 6 (2/23). This version should have all the major sections, with Executive Summary and Sections 1-2 fairly well-written. Sections 3-5 can be tentative at this point.
- **v2**, due at the end of week 11 (3/29). This version should have all the major sections, with Executive Summary and Sections 1-4 fairly well-written. Section 5 can be tentative at this point.
- **v3**, due at the end of week 15 (4/26). This is the version of the document that will be reviewed by the faculty panel during your presentation in the dead week. At this point you should have all sections completed, including Executive Summary and Section 6.
- **v4 (final)**, due at some point near the end of 492 (next semester). It may not use exactly the same rubric as in 491, but the overall report and project quality will be worth a certain percentage of your grade next semester, and your design document will likely also influence the faculty advisor and IRP panel report in 492.

The design document is assigned this way in multiple phases so that you can receive multiple rounds of early feedback and adjust accordingly.

The design document is worth 20% (v1 - 2%, v2 - 2%, and v3 - 16%) of your overall score and will likely serve as a significant basis of the score for your final project review (25%). Please take this seriously.

This assignment is for DesignDoc v2, which is due on 3/29 Sunday 11:59 PM. Please type your document and submit on Canvas. Only one submission is needed from each team.

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Criteria	Ratings		Pts
Format Issues Includes title page, table of contents, list of figures and tables, and references. Pages are numbered, figures and tables are introduced, headings are numbered, etc.	**0.5 pts** **Full Marks**	**0.0 pts** **No Marks**	0.5 pts
Executive Summary Executive summary page includes descriptions of all the elements – development standards & practices, requirements, list of relevant courses, new skills acquired.	**0.5 pts** **Full Marks**	**0.0 pts** **No Marks**	0.5 pts
1.1 Acknowledgment Acknowledges organizations, clients, or individuals who make significant contributions to the project.	**0.5 pts** **Full Marks**	**0.0 pts** **No Marks**	0.5 pts
1.2 Problem and Project Statement Defines the problem that is to be solved and an overview of the project.	**1.0 pts** **Full Marks**	**0.0 pts** **No Marks**	1.0 pts
1.3 Operational Environment Describes the environment in which the end result of the project is to operate.	**1.0 pts** **Full Marks**	**0.0 pts** **No Marks**	1.0 pts
1.4 Requirements Lists requirements for the project. These can include functional, economic, environmental, and more.	**0.5 pts** **Full Marks**	**0.0 pts** **No Marks**	0.5 pts
1.5 Intended Users and Uses Defines who will use the project and how it will be used.	**0.5 pts** **Full Marks**	**0.0 pts** **No Marks**	0.5 pts
1.6 Assumptions and Limitations Contains two lists, one for assumptions and one for limitations, with justifications of the items contained if needed.	**0.5 pts** **Full Marks**	**0.0 pts** **No Marks**	0.5 pts
1.7 Expected End Product and Deliverables Defines the deliverables at the end of the project. Includes detailed descriptions for each deliverable.	**1.0 pts** **Full Marks**	**0.0 pts** **No Marks**	1.0 pts

Criteria	Ratings		Pts
2.1 Proposed Approach Defines possible methods of solving the project and references industry standards in those methods.	**0.5 pts** **Full** **Marks**	**0.0 pts** **No** **Marks**	0.5 pts
2.2 Design Analysis Describes what has been done, success or failures encountered, observations, and defines the strengths and weaknesses observed.	**0.5 pts** **Full** **Marks**	**0.0 pts** **No** **Marks**	0.5 pts
2.3 Development Process Discusses and defines the standardized development process that will be followed, e.g., Waterfall, Agile.	**0.5 pts** **Full** **Marks**	**0.0 pts** **No** **Marks**	0.5 pts
2.4 Conceptual Sketch Uses a system-level conceptual sketch diagram to describe the concept for your approach/design. Describes the modules in your design (dependency/concurrency of modules, interfaces, architectural overview, etc.), and module constraints tied to the requirements.	**1.0 pts** **Full** **Marks**	**0.0 pts** **No** **Marks**	1.0 pts
3.1 Previous Work and Literature Lists existing works, background material, and the extent to which any of it is being utilized.	**0.5 pts** **Full** **Marks**	**0.0 pts** **No** **Marks**	0.5 pts
3.2 Technology Considerations List strengths, weaknesses, and trade-offs in existing technology. Discuss solutions and design alternatives.	**1.0 pts** **Full** **Marks**	**0.0 pts** **No** **Marks**	1.0 pts
3.3 Task Decomposition Break down the project into multiple tasks.	**1.0 pts** **Full** **Marks**	**0.0 pts** **No** **Marks**	1.0 pts
3.4 Possible Risks and Risk Management Define concerns or possible hindrances currently identified in the project.	**1.0 pts** **Full** **Marks**	**0.0 pts** **No** **Marks**	1.0 pts

Criteria	Ratings		Pts
3.5 Project Proposed Milestones and Evaluation Criteria Define key milestones in the project. Define the criteria that marks the completion of specific milestones.	**1.0 pts Full Marks**	**0.0 pts No Marks**	1.0 pts
3.6 Project Tracking Procedures Define the methods that will be used for tracking the progress of the project throughout this and the following semester.	**1.0 pts Full Marks**	**0.0 pts No Marks**	1.0 pts
3.7 Expected Results and Validation List the expected results of the project as well as the methods that will be used to verify that those results have been met successfully.	**1.0 pts Full Marks**	**0.0 pts No Marks**	1.0 pts
4.1 Project Timeline Produce a detailed Gnatt chart covering all known aspects of the project and their expected time to completions.	**1.0 pts Full Marks**	**0.0 pts No Marks**	1.0 pts
4.2 Feasibility Assessment A realistic projection of what the project will be. State foreseen challenges of the project.	**1.0 pts Full Marks**	**0.0 pts No Marks**	1.0 pts
4.3 Personnel Effort Requirements Define, in a table, a task by task breakdown of the project, including the estimated time required to complete each task.	**1.0 pts Full Marks**	**0.0 pts No Marks**	1.0 pts
4.4 Other Resource Requirements Identify the other resources aside from financial, such as parts and materials that are required to conduct the project.	**1.0 pts Full Marks**	**0.0 pts No Marks**	1.0 pts
4.5 Financial Requirements If relevant, include the total financial resources required to conduct the project.	**1.0 pts Full Marks**	**0.0 pts No Marks**	1.0 pts
		Total Points: 20.0	