

DP Preliminary Report, Spring 2017

The preliminary report in 6.033 has several purposes: to provide a framework within which you can articulate your preliminary design and justifications for design choices; to get feedback from technical instructors which will guide the remainder of the design and/or modifications to the design; and to gain mastery of many of the skills needed to write a systems design paper. Like the final design report, the preliminary report explains how your design works to solve the assigned problem. It further demonstrates that the design meets all the requirements, and justifies design decisions.

You should be able to characterize your proposed system at a high level using summary, and show how it will meet requirements. Doing so may require you to explain some of the implementation details. Your description should be written for a broad range of systems experts from different fields, and should build on our framework of key concepts such as modularity, simplicity, scalability, etc., using specific technical language as appropriate.

The DP Preliminary Report should be approximately 2000 words.

- ☐ **Title** names/describes your project.
 - I.e. “Wireless Network Optimization” not “6.033 DP”
- ☐ **Introduction** presents the problem and introduces your solution
 - Introduces the purpose of the system with a brief description of basic features and functions.
 - Defines the problem; identifies needs that current systems do not meet
 - Briefly presents your design approach and how it solves the problem, articulating your major design choices
- ☐ **System design** fully presents your design to solve the main problem
 - Organizes the main body of the text by system outcomes, or other conceptual categories
 - These categories highlight the problem-solution logic that determines design choices
 - Frames explanation of system components or functions in terms of purpose
 - Structures the descriptions (what and how) in relation to the purpose (why)
 - Identifies major design decisions, tradeoffs, and choices made
 - Confirms that the design functions appropriately in specified use cases
 - May include figures (titled, labeled, captioned, and referenced in the text) to illustrate complex or challenging concepts
- ☐ **Conclusion** briefly summarizes how your design will meet the requirements, and notes problems which remain to be resolved.
 - May be a separate section or may be the final paragraph
- ☐ **Overall** the language of your report should be professional but not legal or bureaucratic.
 - We expect correct grammar and syntax, careful proofreading, and visually appealing layout

Midpoint DP Reflection

Purpose: To provide a thoughtful and *honest* reflection of your design team's communication approach. Although you must submit a Midpoint Reflection to receive credit, the content of this Reflection will *not* impact your course grade, so please be 100% honest.

Audience: Primarily your communication instructor. Your Reflection can help guide communication content for remaining lectures content this term and in the future. Your technical instructor/TA may also read your Reflection.

Format: A brief, individually-written document approximately 250 words in length. Submit your Reflection by the deadline for the Design Project Preliminary Report.

Content: The Reflection should briefly summarize the contribution of each team member based on your individual observations: In addition, please answer the following questions:

- What processes and agreements did your team develop to guide your collaboration?
- Which model(s) of collaboration did your team use to develop your design and write the proposal (review the handout if needed)?
- Were these decisions, modes and processes successful/appropriate for your team?
- Were they helpful in addressing concerns or disputes, or did they help avoid disagreement?
- Will you modify these agreements or change your process moving forward to the final report?

To help us understand how stasis theory and our teaching can support your work, please reflect on your experience:

- Did you use any aspects of stasis theory in your thinking/writing about the design project? If not, why not? If yes, how did you use stasis theory? As a reading tool? A creation strategy for writing the DPPR? To think through your design? To support collaboration or teamwork?
- Do you have any questions, concerns, or other comments about stasis theory?