



IE 477 – IE 478 Systems Design

A Summary of Required Reports and How They Are Connected

Last Revised on September 7, 2026

During the two semesters, you will be asked to prepare four reports and summary of the project that will be a part of the published booklet.

These reports are graded by at least one of the following parties: IA, AA, CC and TA. You will not be explicitly informed about the grade, but you will be presented by several levels of feedback: Each report has a **draft version**, where explicit feedback by some of the parties mentioned above will be available for preparing the **final version** of each report. Additionally, oral and/or written comments about the final version will be supplied by the AA, as well as the CC. Sometimes, a presentation by the coordinators on general feedback will be carried out after the final version of the report is submitted.

For each of the reports asked, there will be a list of expectations which is available for your use. Grading will also be based on these expectations. Hence, it is important that you understand what is required before you start composing the reports.

Each report paves the way to the final report, which is the main product of the courses. All the reports are geared towards satisfying the design criteria of the course and hence each report follows the other to reach the final report (as well as other deliverables) at the end. Hence, it is important that you understand what is expected from this course – criteria for the success of the project:

1) System design

- Model development and validation
- Consideration of alternatives: Extent to which the team demonstrated critical thinking in the design processes including scenario and/or what-if analyses
- Model usage for changing environments
- Creativity: Extent to which the team developed a novel solution to the design problem while still achieving a functional design
- Technical competencies: Extent to which and validity of the technical aspects have been used properly, including methods, tools, and techniques.

2) Success of the design

- Attainment of project deliverables: Extent to which the goals of the project and end-user specifications have been met.
- Benchmarking: A comparison of the current and proposed system should be provided along with a cost/benefit analysis.
- Implementation and system integration: Extent to which the proposed system is successfully implemented and integrated into the existing system – if not applicable, then a detailed implementation plan and a pilot study may be provided.
- End-user evaluation and assessment: A written statement from the industrial advisor(s) evaluating the project.
- Impact on the organization: Effect of the proposed system on the organization (financial impact, simplified operations, etc.) – in terms of performance measure(s) used in validation as well as other performance measures.

- Global and societal impact: As an additional consideration, if applicable.

The following reports and their approximate timing are stated below:

1. **Project Proposal Report - PPR** (Four weeks after your kick-off – usually week 5-6 of the first semester)
2. **Progress Report - PR** (Due to Week 13-14 of the first semester)
3. **Validation Report - VR** (Due to Week 4 of the second semester)
4. **Booklet Report - BR** (Due to Week 11-12 of the second semester)
5. **Final Report - FR** (Due to Week 14 of the second semester)

The general understanding while preparing these reports are:

- Keep some parts of the previous reports as is, if there are no changes. However, do not keep any information that was once relevant to your project but is now totally irrelevant. Your project reports are not a place to log the historical changes you had throughout two semesters. If one wishes to track your changes, they could browse through your earlier reports.
- Expand some of these sections with the new work you have performed.
- Make sure that the parts added as new work do not change the previous parts – if it does update the sections with new information.
- Use Appendix A to report Gen AI activities¹.
- Make use of the remainder of the appendix if something previously prepared parts become too detailed for the current report – find ways to address such information and knowledge in the report text for completeness while referring to the appendix for details.
- Follow the instructions described in the document called **Report Format** while preparing your report.

¹ See the document titled **Reporting Gen AI Activities** for more detailed description.