

## Report Content for Undergraduate Students: Project title

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Name(s) (emails)

- 1. Introduction.** Introduce and describe in general terms the background to the system. Subsections should include:
  - **Background** describes why this new system is built
  - **Expected types of users** of the system, including their experience, expected knowledge, etc.
  - **Contexts of use** that describes the setting and typical situations in which the system will be used
  - **What the system will be used for** briefly describes the general expectations of the system
  - **Constraints** that limit the design, i.e. scoping the project
- 2. Requirement gathering.** This is where you provide details on how you gather your requirement. Subsections should include:
  - **Competitive analysis**, this provides a critical analysis of the limitations of the current systems/practices (i.e. the problems that users experience with the current systems/practices – also list the good things, especially if the competitor system is the number one selling product in the market). Provide pictures of competitor’s products or the current practices if appropriate, with comments
  - **Data gathering method**, this should describe in great detail the method you use (interview, observation, analysis of manuals of competitive products, etc). If you use interviews and/or observations, describe how many people, who they are (age, gender, job/study, Internet/computer experiences, experience using similar products, etc, *but not their names, please*, this course received IRB exemption with the promise of not asking for user names), where and when the interviews/ observations took place, etc. For interview, include questions in the Appendix. For observations provide details on the actual places (e.g., McHenry library, 1<sup>st</sup> floor)
- 3. Requirement analysis.** This is where you provide details on the analysis of your requirement data. Subsections should include:
  - **Personas.** List here several concrete personas. See example in the lecture notes for formatting personas. Please remember that concrete personas have name (not real name), age, job, etc. They also have narrative activity on their daily life, in which the interaction with the system being investigated is a part of it (this is not supposed to be a diary). They also need to have key attributes and key goals in relation to the interaction with the system. Please indicate whether each persona is a typical user, occasional but important or occasional and with special characteristics. Include a description on how each persona was developed and validated.
  - **Scenarios.** List here several concrete scenarios of use. Try to keep them short and to the point. Each scenario should be accompanied by a paragraph that describes the type of the expected user (e.g., a typical customer), the relative importance of the scenario (e.g. frequently happens and important, infrequently happens but still important, rare and not important, etc), and whatever other nuances you feel should be included. Include a description on how the scenarios were collected and validated.
  - **Use cases.** List several interaction use cases. Think carefully at the extensions.

**Requirement summary.** This is where you provide the summary of your functional and non-functional requirements (I expect at least 5 of each). For each requirement, indicate whether it is high, medium or low priority. For each, include justification why it is included. Example:

- *Functional: The system must support cash and card payments for fines (High priority)*  
*Reason: some users will not have enough cash and if the system does not allow users to check out books unless the user pays the fine, than alternative payment method to cash payment must be provided*
- *Non Functional: The system must be accessible by users in a wheel chair (High priority)*  
*Reason: to be in compliant with American Disabilities Acts.*

4. **Hierarchical Task Diagram/List.**

5. **A storyboard of the system**

6. **Hierarchical List of Functions (if appropriate)**

7. **Heuristic evaluation.** This report your heuristics evaluation results.

8. **Revision.** This describes how the system was revised to address the problems in the heuristics evaluation.

9. **User testing.** This is where you report your user testing. Report

- **Method.** Why you choose that particular method, how do you ensure the method is appropriate for your particular system. Please also compare and contrast this method (strengths and weaknesses) with one other testing method.
- **Users.** List their details (age, gender, experience with similar system, domain expertise, etc).
- **Testing setup.** Where, when, how you did the experiment, what the tasks are, questions you asked, variables, how you ensure there is no nuisance that affects your data etc.
- **Results.** Problems users picked up and how you plan to revise them. Argue why those are problems (or non-problems)

10. **Final version.** This is where you describe how the final version is, and how it performs compared to the products that are out there in terms of HCI aspects (pick your aspects, it can vary wildly from usability criteria, design principles by whoever – Dix et al, software engineering, etc).

11. **Extension.** And this is where you describe possible extensions if you would have had time and the expertise required. Justify why those extensions are good (in terms of HCI aspects again).

12. **References.** This is where you list all of your references.

13. **Appendices.** And this is everything else (URL, screenshots, etc).

14. **Attachment (if appropriate).** CDs/DVDs, etc.

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*Presentation logistics: 15 minutes, focusing on:*

- *Why such system, what are the limitations of current system/practice that the system addresses.*
- *Requirement method and summary*
- *Iterative design (lo-fi, hi-fi, with evaluations in between)*
- *Demonstration of the final prototype*