

Proposal for a
Thesis in The Field of
Information Technology
In Partial Fulfillment of the Requirements
For a Master of Liberal Arts Degree

Harvard University
Extension School
<Submission Date>

<Name>

<Street Address>

<City, State, and Zip Code>

<Work Phone>

<Home Phone>

<e-Mail>

Proposed Start Date: <Date>

Anticipated Date of Graduation: <Date>

Thesis Director: <Name, if known>

1 Tentative Thesis Title:

<Thesis Title>

This needs to be succinct, reflecting the appropriate scope of work you are undertaking. For instance, "Investigations in the Applications of XML" is so broad as to be meaningless, "Using XML for Data Representation" is a little more focused but is still too broad, but "Using XML for Data Representation in Financial Service Brokerage Systems" might be reasonable, and "Comparing XML Data Representation to Traditional Data Representation in Financial Services Brokerage Systems" would be much more appropriate. At this point, consider your title a working title, since changes in direction along the way will affect the results you finally achieve.

2 Abstract

Describe, in one or two sentences, what the central theme, or thesis, of this project is to be. Then, in only two or three paragraphs, give a *summary* of what you hope your project will show, what technologies are relevant, and what your approach is.

3 Thesis Project Description

In this section, elaborate on the summary above. This gives you a chance to describe how much background work you have already done in narrowing down your thoughts to a thesis topic of a reasonable scope. Include references to material you have used to help you define this proposal (use the References section to give a complete description of the references).

Begin by describing the context in which this project is being done. This includes relevant course work, research sources, your own background and readiness for the topic, other research that is like yours or upon which your project is based (use references if need be).

Next, describe how you will approach the project and related implementation work. For instance, you can give a description of background information you have already gathered, and other sources you expect to tap into. Then describe the implementation vehicle (for instance, an application you will build) that will either illustrate your thesis or form the core of your demonstration. If you have any preliminary requirements or design information (including object models, data models, algorithms) describe them here.

This chapter should cover the following:

- Background of the project
- Comparison of your approach to other approaches
- A description of the application or software components that will be written as part of the project
- A brief description of your technology choices

Too often, a student will present a diagram showing a set of tiers, such as Presentation,

Business Logic and Data Access. This is usually accompanied by text that explains the well-known purpose of each tier. While this is a useful way to organize one's implementation that is supported by many platforms, there are two problems with this diagram as "the architecture for my system". First, most people who use this don't include a single word on the diagram that refers to any specific feature of the application; that is, the diagram is application-independent. An analogy is that of a housing architect sending you a model for your new house that shows four tiers: a foundation, two floors with walls, and the roof. What you really need to see are diagrams that show how the house fits into its surroundings and the elements of the house and their relationships to one another – the style of the doors and windows, the location of rooms, stairs, hallways, and so on, so that you can imagine how you might live in the house. Second, although these multi-tier diagrams have been around and are available from many sources, no citation of the source used is present.

So you need to think carefully about the major functional components of the application you're building from a user perspective (e.g., a Customer Information Service, an Order Subsystem, a Business Rule Interpreter) and also indicate how these components depend on one another. Only then can you convey to a potential user what the system will do when it's built and how you are planning to design and stage the implementation.

4 Work Plan

In this chapter, describe what your overall work plan is. Be as specific as you can as to how the parts of your project work will come together so that you and your thesis director can make better decisions about changes as new information comes to light.

4.1 Assumptions, Risks and Alternatives

Describe the development environment you require (language, OS, system) and other tools you expect to use. Also describe any assumptions you have made about what it will take to finish your work.

Describe the risks you now see as inherent in your work and alternatives you might have to take to ameliorate these risks (e.g., project scope and alternatives for scope reduction)

4.2 Preliminary Schedule

Give a breakdown of the activities that lead to completion of major milestones in your work, and give rough time estimates for completing these activities. These should be at the level of detail of 2-4 weeks each.

5 Glossary

You should not assume that all readers are familiar with the technology or terminology referred to in your thesis proposal. This section should include definitions of major terms and an explanation of acronyms.

6 References

Be sure to adhere to the format for references in the Thesis Guide. Also, use the proper format for citations of references in the document.

The sample thesis by Girts Graudins has been formatted correctly.