

Systems Analysis Project Assignments and Deliverables (Project Builder Guidelines)

The class projects are designed to demonstrate to you real information systems concerns and to guide you in the creation of documents used in analysis and design. By the end of the term, you will have created the kinds of documents paying clients expect in professional-grade analysis. The project binder will guide you in the future in critiquing others' proposals and in developing your own.

Portfolio Project

Our course presents a methodology based on well-established, traditional systems analysis procedures, while sensitive to the emergence of the growing importance of small enterprise computing and functionality of 4GL software. The small enterprise project approach requires you to apply sound computing fundamentals to situations that you will find very contemporary and perhaps close to your own real-world experience. This term, the course includes undergraduate, graduate, and health informatics students, with varying degrees of computer technology, business experience, and domain knowledge. Keep this in mind: the practice of analysis is consistent across all areas of work, tho there will be different levels of analysis, different forms of text and visual presentation based on the role of the analyst and the knowledge-base of the audience.

Portfolio project assignments run throughout the text, coinciding with the activities and tasks described in each reading. You will work as a member of a team to design a modest information system for a small enterprise, such as a digital library, digital archive, or an report on a logical model of a larger institution's data needs and work-flow updates. There are many team assignments designed to help your team create project deliverables, such as project contact, preliminary presentation, design review, prototype, training, and final report. [The final set of documents depends on the class project, your backgrounds, and available resources.] When you have completed this work you will have a portfolio of your team's work, as well as a practical understanding of how to build an information system.

If possible, we'll have a real case to study.

The examples we have of documents and processes are guides, applicable to any situation. But they are just guides - each actual case will vary on-the-job. Some areas of systems analysis emphasize *project management*, others on the *technical writing and presentations*, still others on the big picture, addressing information needs with technology as well as some management and cost analyses.

Suggestion: A Fictional Consulting Firm

In class, and on the job, you'll work as part of a team. This is because not all skills are present equally in all analysts and because different domains of work - health care, publishing, librarianship, the sciences, etc. - require communicating successfully between the technical staff and the domain experts.

Some students do plan careers as entrepreneurs or as consultants - and there is a tremendous need for them - and so perhaps it's useful to begin to develop that identity. Get to know one another while working on other tasks - a good analyst is able to establish a rapport with his or her clients as well as with members of his or her team. If this interests you, consider your classmates as your team:

1. Decide on a name for your systems analysis consulting firm.
2. Develop a company logo using a graphics package.
3. Integrate this company logo into a company letterhead, which you will use on all correspondence with your client. And that you could integrate into the project binder documents.
4. Prepare a (a) website or (b) Portfolio Project Binder. For the binder, have with tabs for each activity assignments and each of the deliverables. File a copy of your letterhead stationery and advertising flyer behind the tab labeled "Company Identity".
Clients expect to go online and see the status of their projects.

Project Initiation

Download and unzip the Project Binder documents.

Include a copy of every document in the ProjectBinder.zip file in your own project binder and/or website. This template records all that could be used in any project. These are guides to ensure the analyst reviews all the pertinent materials; projects in practice will vary. It's the experience of the analyst and the needs of the client that dictate what's actually included.

In the class, as on the job, we emphasize documentation. The documents can be classified into those that communicate with your client, those for in-house purposes only, working documents (drafts and discussions), and project documents (the deliverables). It's important to date every document - even drafts. Analysts usually keep a log of every contact with the client. Collectively all the documents are stored (in the binder or on your website) by function and then reverse sequentially by time.

At different points in the project and at the end of a project, the client is presented with the documentation. In real life, you'd keep a copy of all the documents created for your own purposes, a copy of the final project, and provide the client with a copy of the final project.

But we need an entrée to the project! Usually the client initiates contact by a phone call, drop in, or by a web form. However the contact begins, the analyst begins a journey of learning about the organization, asking questions the organization's people don't know to ask; the analyst must learn from and teach the client, while using his/her knowledge of technology, to create the best candidate solution. Working with people, learning more about the technical options, and designing solutions can be challenging, it's definitely time-consuming, but in the end very satisfying!

Using your project binder or your website to store your documents.

To initiate the project more formally, complete the following tasks:

1. Prepare an initial response to your client (use your letterhead stationery) to acknowledge receipt of the project request and your interest working on the project. In your letter be sure to include a restatement of the client's problem, your project milestone timetable, and your firm's billing policy. Include a copy in your binder in the appendix.
2. Prepare a set of initial questions regarding the systems, data, procedures, etc. related to your project. These questions should be forwarded with a cover letter to the client as soon as possible. As a practice, the professor will act as a surrogate client. You should receive a reply (oral, written, e-mail, etc.) to your questions in a timely fashion. For the first few weeks of the project you should continue with the "Q & A" correspondence until you have affirm grasp of what your user wants. Bring your questions to class and we'll discuss them. [The preliminary Q&A helps you know the client's expertise, expectations, frustrations, and organizational limits. The client's questions usually lead the analyst to do background investigations into options, the famous "environmental scan." Put a copy of your questions and an-

swers in your binder/site.

3. File a copy of these two letters (response and initial questions) in the Portfolio Project Binder¹ behind the tab labeled “Assignment 2.”

Project Deliverable: Project Contract

Although you may feel it is premature to agree to anything in writing at this early stage in your portfolio project, you must make an honest attempt to outline the broad parameters of your work. This exercise provides a good benchmark for you to measure your successes and failures as you proceed through the project. The intent is to build your experience so that you can improve with each project you attempt in the future.

This is a first pass at expressing what the client needs. You’ll see analysis is iterative - we refine our work for each subtask of the whole project. At this point, we’re moving towards defining the parameters of the project and document them in a “request for system services” and a “basic business plan.” The information in these documents become the content of the contract of work with the client.

Visit any public institution website and you’ll probably find a list of consultants, the project name, the cost, and notice the sole contact person’s name. Here’s an example from the [City of Folsom, CA](#). Here’s a template from UCSF demonstrating a typical form of a contract². Here’s another version of a general online contract form³. In practice, an attorney should review the contract.

In order to establish a clear agreement between you and your client, you must complete the following tasks:

1. Prepare a project contract with the following content:
 - a. Problem summary
 - b. Project scope (boundaries of the information system)
 - c. Project constraints (cost, delivery date)
 - d. Objectives (measurable goals)
2. Prepare a cover letter to transmit the contract to your client. Submit a copy of your cover letter and contract to your instructor.
3. File a copy of your cover letter and contract in the Portfolio Binder behind the tab labeled “Project Contract.”

Process Modeling.

Model-building is an important part of the analysis phase of the SDLC. Models help you better understand the information system under study. Your first experience with data flow diagrams may seem very tedious, perhaps frustrating. The analyst must revise the diagrams several times before the model accurately represents the way external entities, processes, and data flows work together.

Modeling has become extremely popular. Usually people express a model in visual forms; the traditional techniques are complemented today by still-evolving forms. This is important: there are many techniques for modeling (that is, how the analyst should approach a case); and today competing modes of analysis and visual representation. Some techniques real emphasize how people work (Agile, Activity); others on building object-oriented software (Universal Modeling Language); others

¹ If you choose the website approach, replace “project binder” with “website.” I’ll use “Project Binder” throughout the rest of this document and in class.

² <http://www.medschool.ucsf.edu/academicaffairs/faculty/policy/facultyconsulting/AgreementTEMPLATE.doc>

³ <http://www.cnpchatt.org/downloads/SampleIndependentContractorcontract2.pdf>

on traditional data and work flow techniques (entity relation diagrams ERD, processing decomposition, using Yordan, Nash, graph, etc.). There are software suites, too, that generate documents for all the activities in analysis. But note: (1) the techniques don't necessarily apply to all phases of analysis even tho there are some who try (e.g., applying UML to process modeling); and (2) organizations have preferred in-house techniques and software. Regardless of the technique and software, the things to learn are the same - tho the many competing styles are confusing.

Preparing regular project budget and status reports is an important part of project management. These reports help everyone understand how the project is progressing. In this situation, they provide a valuable "reality check" for the student analyst. Comparing your actual experience against your initial plans will help you prepare estimates for your next project. In order to begin the model-building process and develop your first project management reports, you must complete the following tasks:

1. Prepare the existing system context diagram and first-level data flow diagram. Store a copy of these diagrams in your binder (and give the prof a copy).
2. You'll receive a copy of demonstration budgets and status reports later in the term. Use these documents to practice estimating.
3. Develop a first draft of your week-by-week budget for your project. Your budget should show estimates for the entire project, actual expenditures to-date, along with cumulative over/under amounts, by cost category (hardware, software, and labor).
4. Develop a first draft of your week-by-week project status report for your project. Your status report should show the following for each activity: start/stop periods, % complete, status summary.
5. Prepare a cover letter to transmit the budget and status reports to your client. Post a copy of your cover letter and the two project management reports on your site (or in your binder; if the latter, email them to me).
6. File a copy of the context diagram, first-level DFD, cover letter, project budget, and project status in the Portfolio Project Binder behind the tab (or link) labeled "Assignment 3."
7. Note that we'll discuss object-oriented approaches in class - depends on class goals.

Note: Although you are not required to submit regularly updated budget and status reports to the client, you should practice data gathering and report preparation. It's worth including updates in your binder for your own benefit.

4: Data Modeling

This assignment builds upon the model building activity of the previous assignment. The easiest way to begin building the data model is to study the data stores identified in the process model. Normally, each data store on the DFD is a potential file, or entity, in the entity-relationship diagram. For example, if you identified a customer data store on the DFD, you should identify customer as an entity on your ERD. Sometimes a single data store might lead you to define several entities. For example, a casually defined inventory data store might actually require several related database tables to implement.

As with the DFD, the ERD provides another opportunity for you to increase your understanding of the system under study. Your first attempt at the ERD will probably require several revisions as you continue through the analysis phase.

In order to begin the data-modeling process and develop your first entity-relationship diagram of the existing system, you must complete the following tasks:

1. Prepare the existing system entity-relationship diagram. [Post to your site for review.]
2. File a copy of the existing system entity-relationship diagram in the Portfolio Project Binder behind the tab labeled "Assignment 4."

5: Object Modeling

A small-enterprise project is not normally a candidate for object-oriented methodologies. (Object-oriented workflow analysis is difficult and specialized; but we can capture work behaviors and how the data are transformed and express them as objects using UML class diagrams. We have a couple of UML activity diagrams for discussion that you can use) Nevertheless, this exercise provides an opportunity for you to become familiar with the object model and the UML class diagram. In order to develop an object model from the data model you completed in the last chapter you must complete the following tasks:

1. Review the existing system entity-relationship diagram you prepared above, giving consideration to the potential for each identity to be defined as a class.
2. Prepare the UML class diagram for the existing system. Post on your site/binder for review.
3. File a copy of the existing system UML class diagram in the Portfolio Project Binder behind the tab labeled "Assignment 5."

6: System Modeling

After building process, data, and object models of the existing system, it may seem pointless to construct another diagram of a system you intend to replace. Why not move on to the new system design? The answer to that question is twofold. First, the USD and menu tree models provide the best opportunity for you to verify your understanding of the existing system with the user (see the reading on graphing). Second, these models are the most easily altered to help you communicate your first model of the new system to the user.

In practice, the investigation, analysis, and model building of the existing system is not nearly as orderly as the sequence suggested by this and the previous three chapters. Nor is it likely that you will approach the end of the analysis phase with a complete set of existing system models. It is common for analysts to jump from existing system model building into new system design with little concern for violating a textbook-driven methodology. The purpose is to understand the existing system well enough to eventually construct a collection of models to guide the development and implementation of the new system.

This activity presents several project management tools. Earlier (3) you prepared a draft of your project budget and status report. If you are required by your client to submit regular budget and status updates, you should consider adopting standard the data collection and reporting methods. This is one reason companies use software such as Visio, Rational Rose, or other project management tools, or software documentation tools (e.g., JavaDoc). Additionally, the directory structure used to organize the files associated with the test case might prove useful as a project dictionary for your portfolio project.

In order to complete the existing system models and prepare documents for the preliminary presentation described in the next chapter, you must complete the following tasks:

1. Reflect on how you'd manage your project - are there real-world, personal and technical issues that you can identify that impact your project's progress? Revise the draft project budget and status report prepared earlier.
2. Prepare a user's system diagram (USD) for the existing system. Post for review.
3. File a copy of the existing system USD and the revised project budget and status report in the Portfolio Project Binder behind the tab labeled "Assignment 6."

7: Preliminary System Design

Given the increased emphasis on user participation throughout the SDLC, it is very likely that you and the user have already discussed your progress during the analysis phase of the project. Regardless of the number and frequency of such informal conversations, the preliminary presentation provides an opportunity for you to formally document your transition from analysis to design. The descriptions and visuals of your preliminary system design will stimulate further dialog between you and the user and set the foundation for your detailed design activities.

The specific content and sequence of the presentation can vary considerably, depending of the complexity of the project and the user's prior experience with the SDLC. For this assignment, and the ensuing preliminary presentation, you'll develop and deliver a standardized, streamlined collection of project documents. Review the syllabus for the presentation-related topics in the optional readings list.

In order to develop the new system preliminary system design, you must complete the following tasks:

1. After reviewing the "build" or "buy" discussions, research the availability of turn-key or vertical software solutions to your project. Prepare a brief summary of your findings and post.
2. Prepare a user's system diagram for the new system. Post.
3. Develop a screen form design for the new system GUIDs. Post.
4. File a copy of the research summary, new system USD, and screen form design in the Portfolio Project Binder behind the tab labeled "Assignment 7."

Project Deliverable: Preliminary Presentation

1. Submit a preliminary presentation report to your instructor containing the following items:
 - a. Cover letter
 - b. Summary of the project requirements
 - c. Overview of proposed new system (USD)
 - d. Preview of screen form design (GUID)
 - e. Project timetable
 - f. Project cost breakdown
 - g. Oral presentation slide show handouts (3 slides per page as a rule-of-thumb; see

Duarte⁴ or other for more advice)

2. Prepare a slide show and appropriate handouts to support a 15 – 20 minute oral presentation covering items b-f.
3. File a copy of your report in the Portfolio Project Binder behind the tab labeled “Preliminary Presentation.”

8: New System Modeling and Database Design

Building new system models leads directly to the design of the underpinning element of your small-enterprise information system. Database design, a challenging task under any circumstance, is made easier if you first develop a high-quality ERD. Do not be surprised if your ERD requires several revisions before you can declare it “normalized.”

This is a lengthy assignment. It requires every team member to take on substantial responsibilities and effectively communicate with every other teammate. Everyone should make the effort to become familiar with the database design, regardless of his or her past experience or present project responsibilities.

In order to develop the new system file and form designs you must complete the following tasks:

1. Develop the new system context diagram and first-level data flow diagram. Submit a copy of your diagrams to your instructor.
2. Develop the new system entity relationship diagram. Post on your site and/or project binder.
3. Develop the new system database table definitions, including field names and types. Submit a copy of these definitions to your instructor.
4. Develop the new system object model. Post on your site and/or project binder.
5. Develop the new system menu tree. Post on your site and/or project binder.
6. Develop a detailed form design for updating one new system master file.
7. File a copy of the new system diagrams, database definitions, and detailed form designs in the Portfolio Binder behind the tab labeled “Assignment 8.”

9: Report and Query Design

The list of new system outputs grows with each encounter between the analyst and user. It is common for the user to focus almost entirely on this particular subject. Understanding that information system outputs are made possible by effective input capture and database design, the analyst should always be mindful of the design implications of each item on the output list. The system requirements listed initially on the project request for services and later on the project contract are typically very general. Over the course of the analysis phase and early design phase activities, the analyst refines, expands, and adds detail to these general requirements. The result is the new system output list, from which it is possible to define the specific processing functions of the information system.

In order to develop a comprehensive output design and prepare for the processing design activities ahead, you must complete the following tasks:

1. Develop a list of the new system output list (list of reports/screens the program generates). Post on your site for review.
2. Design a general new system hardcopy report layout. Post on your site for review.

⁴ Duarte. *Slide:ology*. San Francisco: Morgan Kaufmann.

3. Design a general new system softcopy screen design. Post on your site for review.
4. Design two queries for the new system. Submit a copy of the QBE design or SQL code for the queries to your instructor. [We'll focus on SQL.]
5. Develop an I/O system resource requirements note (list of requirements - platform issues, browser tests, etc.) for the new system. Post for review.
6. File a copy of the new system output list, hardcopy report layout, soft-copy screen design, query designs, and the I/O system requirement note in the Portfolio Binder behind the tab labeled "Assignment 9." [Some students use OmniGraffle, Photo-shop or the like to design screens and reports; some students build the actual screen and save a screen shot or printout of the screen with a copy of the file. The latter is preferred, especially for JAD and RAD.]

10: Process Design

As processing design nears completion, you are poised to begin building the system you have designed. Create a PERT chart to pinpoint your position in broad terms and create for yourself a detailed task list identifying tasks that remain. Use a "blurred-line" in your PERT chart to note activities that you might have to revisit.

The relationship between forms (for input of data) and database tables is clear enough. But we must make sure other programmers and website designers have *no* questions about the source of data or where and what to show on the output. Don't be alarmed if your design images are seem general and not especially difficult. As the cases you work with become more complex, so your analyses will become richer and your designs will become more detailed. At this point, it is sufficient that you identify the 4GL product you will use to implement each processing component of your system. Over the next few weeks, you may find yourself moving back and forth between design and development in order to achieve the necessary level of detail your project requires.

As always, it is important for team members to communicate about their project work. The PERT chart provides some proof that communication is especially important from here to project completion. Notice that work on several tasks can proceed independently. One team member can work on project documentation, while another team member works on a prototype. Good team communication makes it more likely that all the independent pieces eventually fit together to create a uniform system.

In order to develop a workable process design and prepare materials for the upcoming design review session, you must complete the following tasks:

1. Develop a list of processing requirements, along with the hardware and software resources required to implement your processing design. Post for review.
2. Develop composite and detailed new system flowcharts. Post for review.
3. Write a summary for each process, briefly explaining which 4GL software features you intend to adapt to manipulate data inputs into information outputs. Post for review.
4. Develop any revisions to your new system DFD, ERD, and menu tree; review UML documents. Post for review.
5. File a copy of the new system processing requirements, flowcharts, process summaries, and model revisions in the Portfolio Binder behind the tab labeled "Assignment 10."

11: Design Review and Prototyping

This is a lengthy assignment, likely to challenge your team resources to the fullest. In previous assignments you developed many design review materials. The first part of this assignment guides you through the preparation of the remaining materials needed for your design review session.

The second part of the assignment directs you to begin developing your prototype. You are required to modify the menu tree and USD to indicate which elements of your system are to be prototyped. Finally, you are required to prototype the GUID to maintain one of the system master files. For this part of the exercise you can rely on the switchboard and detailed form designs you have already developed to begin the prototyping process.

The design review session does not include these prototypes. When completed, they become the focus of the next project deliverable, the prototype review session, which follows in the next chapter.

In order to develop the materials for the design review session and begin the prototyping process you must complete the following tasks:

1. Develop resource requirement specifications for all six components of your system. Include as much detail as possible about products, vendors, prices, shipping costs and taxes. Submit a copy of the specifications to your instructor.
2. Develop cost/benefit projections and a cost/benefit graph using the template file cost-benefit.xls, which is available from your instructor. Include a narrative supporting your benefit projections. Submit a copy of the projections, graph, and narrative to your instructor.
3. Develop a prototype menu tree and a prototype USD. Submit a copy of these two images to your instructor.
4. Develop a prototype of the form sequence required to maintain one of your system's master files. Prepare this GUID as a series of images in a slideshow. Submit a copy of your slideshow handout (3 slides per page) to your instructor.
5. File a copy of your resource requirement specifications, cost/benefit materials, and prototypes in the Portfolio Binder behind the tab labeled "Assignment 11".

Project Deliverable: Design Review Session

1. Submit a design review report to your instructor containing the following items:
 - a. Cover letter
 - b. Narrative overview of the new system design
 - c. Models (USD, Menu Tree)
 - d. Screen designs (switchboard, forms, reports)
 - e. Web site homepage design
 - f. Resource requirement specifications
 - g. Cost/benefit analysis (projections, graph, and supportive narrative)
 - h. Project status report
 - i. Project budget
 - j. Oral presentation slideshow handout (3 slides per page)
 - k. Appendix
 - 1) Revised DFD and ERD models

- 2) Detailed system flowchart
2. Prepare a slide show and appropriate handouts to support a 20 – 30 minute oral presentation covering items b-i.
3. File a copy of your report in the Portfolio Binder behind the tab labeled “Design Review Session.”

Portfolio Project – Chapter 12

Team Assignment 12: 4GL Programming

This assignment is designed to document your development methods. Understanding that your efforts are concentrated on development activities, which can be all consuming, you are required to submit *brief* summaries, annotations, or examples of the following:

1. Describe your implementing software (Access, Excel, Word, Visual Basic, FrontPage, etc.). Submit a copy of your description to your instructor.
2. Summarize your use of customizing features of your implementing software (event procedures, macros, SQL, etc.). Include at least one example. Submit a copy of your summary and example to your instructor.
3. Describe the ways in which you integrate different implementing software (OLE, import, export, etc.). Submit a copy of your description to your instructor.
4. Annotate your detailed system flowchart with descriptions of the processing performed within each subsystem. Submit a copy of your detailed system flowchart and annotations to your instructor.
5. File a copy of your summaries, annotations, and examples in the Portfolio Binder behind the tab labeled “Assignment 12.”

Project Deliverable: Prototype Review Session

1. Submit a prototype review report to your instructor containing the following:
 - a. Cover letter
 - b. USD and Menu Tree with prototyped segments highlighted
 - c. Summary of any major design changes since the design review report, including revised DFD and ERD
 - d. Prototype GUID screen images, reports, and web pages
 - e. Project status report
 - f. Project budget
 - g. Oral presentation slide show handout (3 slides per page)
2. Prepare a slide show and appropriate handouts to support a 20-30 minute oral presentation covering items b-f.
3. File a copy of your report in the Portfolio Binder behind the tab labeled “Prototype Review Session.”

Team Assignment 13: Networking

Networking includes many different technologies. It is very likely that, at a minimum, your small enterprise project requires you to develop a web site and probably an app. As a practical conse-

quence of the academic environment surrounding your project, there are varying degrees to which you can implement your networking design. While this assignment asks only that you summarize your intended use of networking technology, you may be able to elaborate considerably in your descriptions and illustrations, depending your circumstance. In order to document your networking efforts you should complete the following tasks:

1. Prepare a slide show illustrating the various pages of the enterprise web site. (Of course, post on your site, along with a .pdf of the homepage tagging.)
2. Prepare a brief summary of the current and potential near future use of networking technology in the solution to your project. Post.
3. File a copy of your slide show handouts, sample code, and networking summary in the Project Binder behind the tab labeled "Assignment 13."

14: Testing

This assignment is designed to document your product testing plans, methods, and results. Since testing naturally occurs throughout the design and development phases, much of this assignment requires that you document what has already happened. Such "after the fact" documentation provides a useful framework for future projects. NB: We may not be able to implement actual systems so we must proceed as if we can. Therefore we need to consider what we *would* do. So, please submit *brief* summaries of or examples of the following:

1. Submit an outline of your testing plan to your instructor. This outline should document your testing goals and methods.
2. Summarize your testing results. Include one example of your test data, expected outcome, achieved outcome, and explanation any differences between your expected outcome and achieved outcome. Post for review.
3. File a copy of your plan, results summary, and examples in the Portfolio Binder behind the tab labeled "Assignment 14."

Project Deliverable: Training Session

Given the time constraints imposed by the academic calendar and class meeting times, you will not be able to conduct a full-fledged training session. Instead, you could conduct a brief slice of training, focused on a small part of your project. [On the job, you will have to present the overview of your project to administrators and executive; technical parts to the technical staff and CIO; changes to work flow to managers and staff.] Unlike the preliminary, design, and prototype review sessions, the training session is not a slide show presentation. Although you should prepare a few slides to help organize the training activities, most of your time is devoted to either demonstrating your product or instructing your client on how to use your product. [Preferences on training end-users on new products swing between entirely online training and help screens and on-site, face-to-face training.] The purpose of this exercise is merely to sensitize you to the need for following up on training and presentation skills.

1. Add a training session report to project binder or site containing the following:
 - a. Cover letter
 - b. Training plan and schedule to train users on:
 - system switchboard
 - one subsystem
 - system documentation and help features
 - c. Project status report
 - d. Project budget

- e. Oral presentation slide show handout (3 slides per page)
2. Prepare a slide show and appropriate handouts to support a 20-30 minute demonstration of your system and brief training session covering item b.
3. File a copy of your report in the Portfolio Binder behind the tab labeled "Training Session."

15: Getting ready to deliver the final project

There is no team assignment for this chapter. The cover letter for the final report should include a statement about the delivery and user acceptance of the information system. Your status report and budget analysis should address situations where your actual performance differed from your original estimates. [Recall the contract and original BBP and SSR.]

Your system documentation should include a CD-ROM containing all of your project files. You have already created most of the content for the system documentation, but there may be some sections where a substantial amount of work remains. For example, above you were asked to provide a brief summary of your testing plan and prepare training materials for a small portion of the information system. Even tho pieces of the entire project may be missing, you, the analyst, should present the final project with all the pieces. For instance, if a part of the project is not implemented but you list it in the table of contents, it's acceptable to note (in a single page of the binder or a web page) that the page/site is "Left intentionally empty" and make a reference to future plans. The degree of completeness of any project depends on the actual project. Our documentation will recognize the potential of everything needed in any kind of project, tho.

Project Deliverable: Final Project Report and System Documentation

- a. Submit the final report to your instructor containing the following:
 - i. Cover letter
 - ii. Summary of project activities
 - iii. Final project status report with an analysis
 - iv. Final project budget with an analysis
 - v. Narrative of potential future enhancements
 - vi. Recommendations for system maintenance
- b. Submit system documentation, as directed by your instructor, assembled in the following documents:
 - i. Training Manual
 - ii. Procedures Manual
 - iii. Reference Manual
 - iv. Disk or CD-ROM containing all project files
- c. File a copy of your report in the Portfolio Binder behind the tab labeled "Final Report."

[end of the document]