

## COMPUTER SCIENCE DEPARTMENT GUIDELINES FOR SENIOR PROJECT

The Senior Project is an essential part of the education of students who hope to become professionals in the field of computer science. In order that this is a learning experience, the following outline of objectives is presented.

### A. OBJECTIVES

There are three objectives that should be accomplished within the senior project, and the grade awarded will be determined by the degree to which all are effectively exhibited.

1. Technical accomplishment: The technical results presented in the senior project should reflect the maturity of a senior level student in both the depth to which the subject is developed and in the degree to which a variety of information or viewpoints is brought to bear on the problem.
2. Diligent execution: The senior project will be independent work by the student, developed under his or her own initiative and on a timetable under the student's control. The instructor who supervises the senior project is expected to supply only general advice and guidance and to help the student avoid pitfalls and blunders; the day-to-day activities which affect the execution of the project are up to the student.
3. Effective communication: The senior project should represent a well polished piece of writing, with careful consideration given to presenting the results of the investigation in such a way as to provide a maximum of information with a minimum of effort required of the reader. Standard procedures of footnoting, referencing, and symbol usage as used in the technical literature should be employed. The final project document should give evidence that the student has acquired the ability to skillfully communicate on a technical subject to an audience less knowledgeable than the author. All computer programs are to be completely and fully documented.

### B. RESPONSIBILITIES OF THE PROJECT SUPERVISOR

In addition to being a technical consultant to the student and providing suggestions that will permit him or her to be more effective, the instructor who acts as project supervisor evaluates the work and assigns a grade for the course. It is customary for the student and supervisor to meet regularly so that their communication will be continuous and effective. Certain progress reports and outlines of the contemplated work are a university requirement. The instructor may require supplementary reports and may modify the nature of the required reports at his or her discretion.

In order that the student have an adequate background and maturity to effectively under-take the senior project, students will be required to be within four quarters of graduation before beginning a senior project. The department head will waive this requirement only in unusual circumstances.

Grades will be submitted at the end of the quarter by each project supervisor in the usual manner. It frequently happens that an SP grade is assigned for CSC 491, with the grade changed to the appropriate grade after the senior project has been completed.

### C. REQUIRED REPORTS

In addition to special reports that the individual supervisor may require, the following reports are mandatory. See attached sheets for proper formats. It is particularly important that the final project document conform to the prescribed form.

1. Advisor Selection and Enrollment in CSC 491. Each student in CSC 461 is responsible for arranging for a faculty member to serve as the senior project advisor. The student must obtain a permission slip from the department office and go to their advisor to obtain a CAPTURE number for registration.
2. Project Outline. Due at the end of the fourth week of CSC 491. Two copies to supervisor; (s)he keeps one copy and one goes back to the student.
3. Progress Report. Due at end of CSC 491. One copy to supervisor; and one copy to student.
4. Final Project. Due at end of CSC 492. **One** copy for library to be microfiched and returned to student.

### D. SUBMISSION REQUIREMENTS

1. **CASHIER'S RECEIPT:** Student pays the \$6.00 processing fee at the Cashier's windows in the Administration Building. The WHITE copy of the cashier's receipt should be clipped to the senior project requirement form; the yellow copy is for the student's records. The project will not be accepted by the Library without this receipt.
2. **SENIOR PROJECT REQUIREMENT FORM:** Student obtains this form from their department office or the Library, types the required information on the form and submits the form with the senior project and cashier's receipt to their department. The form is also available on the web. Please make 3 copies of the signed form for the Library. Note: The names of authors should be listed on the form exactly as they are listed on the title page. If there is more than one author, they should be listed on the same order as on the title page.

3.               SIGNATURES: Student obtains their senior project advisor's signature on the senior project requirement form. Any additional signatures required by the student's department should also be secured.
4.               DELIVERY TO DEPARTMENT OFFICE: Student delivers to Department in a plain manila envelope:
  - A. Unbound senior project
  - B. Cashier's receipt (white copy)
  - C. Senior Project Requirement Form, SIGNED by advisor
  - D. Senior Project Checklist
5.               DELIVERY TO LIBRARY: The department sends the project to the Library when they have finished with grading or other paperwork. The envelope containing the senior project, receipt and the top 3 copies of the senior project requirement should be addressed to "Library – Senior Project" and placed in the campus mail. If hand delivery is preferred, the project may be brought to the Collection Development Department of the Library.
6.               RETURN OF THE PROJECT: The Library returns the project and a microfiche copy to the department upon completion. Non-print materials are kept in the Learning Resources & Curriculum department of the Library. The project is cataloged on Polycat. Two microfiche copies of the project are retained by the Library. One copy is in the Reference Room for public use and one in the University Archives.

NOTE: For web-based senior projects, please consult "Guidelines for Submitting WWW Senior Projects to the Library." To submit the project on CD-ROM, please consult "Guidelines for Submitting CD-ROM Senior Projects to the Library." These are available on the Web, or in the Collection Development Department in the Library.

QUESTIONS???????? Call the Collection Development Department in the Library at x6-2535 for assistance, or email: [senior-project@library](mailto:senior-project@library).

## Library Senior Project Format Requirements

A senior project is a formal report, usually on a subject in the student's major area of study. The University requires that a senior project be completed before a bachelor's degree can be granted. The Library keeps two microfiche copies of all senior projects; one copy is in the Reference Room for general use, the other is in the University Archives. All projects are cataloged in Polycat.

1. TITLE PAGE: This should be the first page of the senior project, and should include:
  - A. Descriptive full title of project
  - B. Name of author or authors
  - C. Full name of department
  - D. Name of school
  - E. Date

An example of the preferred format for the title page can be consulted in your department. Additional information, as required by your department (such as major, program, etc.), may be included as well.

2. APPROVAL PAGE: The Library does not require an approval page; it has been standardized and replaced by the Senior Project Requirement Form, which will be microfiched with the senior project. If the department requires an approval page, however, it should be a separate form, and follow, the title page. No grade or faculty comments should appear on the approval page, if included, or anywhere else on the project.
3. BINDING: Project should NOT be placed in a binder but should be submitted unbound, as loose numbered pages in a plain manila envelope.
4. PAGE SIZE: 8 1/2" x 11" is preferred. Diagrams and maps over 8 1/2" x 11" should be placed at the end of the project where they will be given special processing.
5. NON-PRINT MATERIALS: Photographs attached to pages can be microfiched but those in color will appear in black and white on the microfiche. Disks, slides, cassettes, videotapes, and other non-print formats will be cataloged and placed in the Learning Resources & Curriculum department of the Library. **THESE CANNOT BE RETURNED.**
6. ORIGINAL OR PHOTOCOPY?: The original is preferred for clarity of microfiche reproduction; a clear photocopy, however, is acceptable, should the student wish to keep the original for interviews.
7. WWW PROJECTS: For web-based senior projects, please consult "Guidelines for Submitting WWW Senior Projects to the Library." This is available on the web or in the Collection Development Department in the Library.

8. CD-ROM PROJECTS: To submit the project on CD-ROM, please consult "Guidelines for Submitting CD-ROM Senior Projects to the Library." This is available on the web or in the Collection Development Department in the Library.

(sample)

### **PROJECT OUTLINE**

SUBJECT:	Design and implementation of a Java TreeExplorer		
OBJECT:	To design and implement a graphical user interface which allows the user to quickly and intuitively use a Storage Area Network (SAN) product.		
EQUIPMENT:	PC Computer running Windows NT		
MATERIALS:	a.	Java Language (JDK 1.2) from SDK 1.2, reference material from Sun website	free
	b.	SAN Reference manuals	22.00
	c.	Java Reference Manual, <i>Core Java</i> by Horstmann and Cornell	42.00
			<hr/> 64.00

### **OUTLINE OF PROCEDURE**

1.	Initial design and implementation considerations	20 hours
2.	Examination of SAN protocols	20 hours
3.	Coding of initial design	15 hours
4.	Initial Testing	15 hours
5.	Redesign and bug fixes	20 hours
6.	Testing of final design	20 hours
7.	Final analysis and data examination	25 hours
8.	Final report and documentation	25 hours

TOTAL TIME 

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 160 hours

Date: \_\_\_\_\_

Student: \_\_\_\_\_

Advisor: \_\_\_\_\_

(Note: Copies of this project outline go to the advisor and student.)

(sample)

## **PROGRESS REPORT**

TO: Dr. Tim Kearns

DATE: Jan. 1, 2002

FROM: John Q. Student

SUBJECT: Progress Report, CSC 491

As of this date, the following progress has been made on my project, "Java TreeExplorer."

- d. Initial Design – The general design is well under way and many alternative implementations have been considered. An initial design for complete coding should be done in the next two weeks.
- e. Examination of SAN Protocols – The interface of the TreeExplorer to the SAN has been designed. This portion of the project took longer than expected due to unexpected difficulties in information representation on the SAN.
- f. Coding – Some of the simple methods have been coded, but most of the coding can not be done until the initial design is complete.

Total time expended: 52 hours

It is felt that progress is on schedule toward completion of this project on time.

(sample Title Page)

# Java TreeExplorer

by  
John Q. Student

Computer Science Department  
College of Engineering  
California Polytechnic State University  
200-

Date Submitted: \_\_\_\_\_  
Advisor: \_\_\_\_\_



(sample)

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## ABSTRACT

The goal of this senior project was to design and implement a graphical user interface which allows the user to quickly and intuitively use our Storage Area Network (SAN) Product. The structure of this project allowed me to work with many different programmers within our software group, all the way up to the team leader. The graphical user interface involves a Windows Explorer like view on the left panel and a right panel which contained an edit panel related to the selected node within the tree. The input for the tree is dynamically loaded from a specified database. The development language was Java (JDK 1.2), which had both its benefits and downfalls.

(sample)

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