

IST 256

## **FINAL PROJECT**

### ***Due Dates***

*Project Groups assigned on April 19*

*Class Presentations, Monday, May 3(last class)*

*Submit Project Report and NetBeans Project to the iLMS, Tuesday, May 11*

The final project will be a team project. It will be an information application programmed in Java using NetBeans and will also include an in-class (short) presentation of the design and a written report.

The information application will be of your choice, but it must include data that is read from a file and a user interface where the user can interact with the data or perform some task on the data.

### **Forming Project Teams:**

The teams will be assigned by your professor, but you have been able to give preferences and those preferences will be followed if possible. Teams will consist of from 1- 4 people. Team assignments will be given in class on Monday, April 19. Teams will be given time to meet during lab on Wednesday, April 21. At this meeting, you should choose the topic of your project and agree on team roles. Each person on the team will play one or more of the following roles, as needed by the project:

- Write the problem statement

- Collect or make-up data for the file and design the file format

- Design the user interface

- Write and debug the code

- Test the code and user interface (this must be a separate person than the coder)

- Document the code

- Check/rewrite the problem statement and complete the report

Each person on the team should understand the final version of the code and how it achieves the problem solution. During the class presentation, each member of the team should be prepared to answer questions about the code.

### **Example Projects**

Two descriptions of example projects have been prepared. The first example is a Used Book Seller, with an example file of used book data. This example will also serve as an example of some parts of the report that you must write. If you choose to do an example like this, it should be different in data and in the user tasks. The second example consists mainly of query log data and a simple application is sketched. If you choose to do a project like this, you can use the query log data and more fully develop the user application.

These two examples serve to give you an idea of the type of project that you can do. Feel free to invent data and user applications, as long as programming the application will meet the technical requirements given below.

These examples are available in the iLMS under Final Project Resources.

### **Project Technical Requirements**

For this project, you will implement a user interface and the application in NetBeans Java. The functionality of the application must include the following three elements in some form:

- Reading data from the file and storing into an array, whose elements are objects of a class designed to fit the data
- Searching the data, based on a user request
- Sorting data

In addition, your project should include at least two of the following list of items:

- Multiple classes
- Methods in the classes
- Additional Form Elements besides JTextField, JLabel, or JButton  
(you may propose alternatives)

### **Project Results**

Each team will give a short 5 minute presentation about their project in the final class. The presentation will be informal (no powerpoint!)

- Description of the problem
- Description of the data (can show the text description or actual data file)
- Display the user interface in NetBeans and describe its functioning

Each team will submit a project report along with a functioning project. The report should include

- Problem Statement
- Description of the data
- Description of the user interface design and functionality

Each student in the class will also be expected to submit a few sentences that are the individual team performance feedback. This statement should include your roles and contributions to the group and your feedback on the performance of other people in the group.

### **Submitting the Project**

By the due date, **each team** should make one submission to the Final Project assignment dropbox in the iLMS system. This submission will include the project report (as a document) and the zipped folder consisting of the project.

By the due date, **each student** should make a submission to the Final Project Evaluation assignment dropbox, giving their evaluation of their own and their teammates' performance.

The project grade will include the project report and whether the project implementation meets the technical requirements and includes good documentation. Although the grade for the project will start out the same for each team member, this grade will be adjusted individually to take account of the project performance evaluations.