

## **CSE255 Introduction to Databases - Fall 2007 Semester Project**

### **Phase III – Report Generation and Final Requirements**

While Phases I and II have focused on the job seeker and job poster, Phase III enhancements focus on the important capabilities that can be supplied by Administrators of UConnJobSearch.com. Specifically, Administrators would seek to run reports on a periodic basis to track the activity and usage of the job seeking/posting services offered by UConnJobSearch.com. For each report listed below, the input to drive the report is also stated:

1. Display a summary of the name, address, and email of all job seekers, alphabetically by the state they reside.
2. When a last name of a seeker is entered, display all of the jobs that the seeker has applied for, listing the last name, first name, company name, job id, job list date, and job title. Note that there may be multiple results since the last name is not unique.
3. When a company name is entered, display all of the jobs (id, list date, and title) for that company, including the fill status, alphabetically by job title.
4. When a date range (start and end date) is entered, display all of the jobs newly listed, including the company name, job id, job list date, and job title.
5. When given a salary value and a job title, display all of the jobs including: company name, job id, job list date, and salary.
6. When given a job id, display all of the seekers (name, address, email).
7. When given a university/college name, display all of the seekers (name, address, email) who attended that university and obtained a bachelors degree.
8. Generate a payment report for UConnJobSearch that is initiated by a date range (start and end date) and includes the payment ID, Payment amount, Payment status, payment type (invoice, credit card or bank), and payment date, for all jobs listed between that date range.
9. When given a list of one or more skills (see Figure 14), display all of the jobs (job id, job list date, and job title) that have at least one of the skills on the list.
10. When given a list of one or more skills (see Figure 14), display all of the seekers (name, address, email) that have all of the skills on the list.

For all teams, to realize these reports, you should design and develop a menu from which a user can select a summary report to execute. Each report that is selected may use a pop-up menu for a user to further select the service s/he wants through the input of constraints (e.g., data values, data ranges, etc.). Please use a web-based interface to organize these 10 reports and solicit input. Display results in a tabular format. **For four person teams, you are asked to generate a single GUI input screen that allows a user to not only request one of the 10 reports, but also allows the user to combine different reports (e.g., combine 2 and 3, combine 2 and 4, etc.). These should be meaningful combinations only. For results, in addition to tabular screen output, provide the option for the user to generate a csv file allowing the output to be opened in a spreadsheet.** For privacy reason, the activity summarization program can only be used by restricted set of users, such as the UConnJobSearch.com employees who are authorized to use the program.

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**FINAL REPORT REQUIREMENTS**

The final report, due at end of the third phase, should be an integrated report. For the list of relational instances you use to populate your database, you should take data from a realistic situation, and make sure that your data shows some variety. The report for Phase III must include the following six components:

1. A description of the purpose of this phase of the project and the list of tasks, a summary of the system requirements and any additions or any revisions made to the specification and the design in the previous two phases,
2. The description of the list of problems encountered and your solutions.
3. The system architecture, and the design and description of all functions, including the list of required ones and the list of functions that your group add into the UConnJobSearch.com system.
4. A User Manual that illustrates the way that each main component of your solution works. Include screen shots as figures to illustrate the various activities by seekers, posters, and administrators.
5. The conclusion that evaluates the system you have implemented, the current limitations and the potential for improvements.
6. Each team member will provide an updated description on your contributions to the group project and what you learned from this project and the team work. This is the individual contributions on the web page. In addition, each of you must confidentially submit the final self assessment by email to [steve@engr.uconn.edu](mailto:steve@engr.uconn.edu) without consulting any of your team members. This information is advisory only!
7. The collection of all of the submittals for the project, including: Phase I report, Phase II report, and Phase III report which includes (1) the relational schema in SQL DDL, (2) the source code of the application, and (3) the relational instances you use to populate the database, (4) a sample output of the UConnJobSearch.com query and update programs, including the summarization outputs, and an attachment of a user manual for the system.
8. A brief 10-15 minute PowerPoint presentation on your project to precede your final demo.

A hard copy of all the above components is expected – due date to be announced. Together with the hard copy of your final project report, you need to turn in the report and the source code in electronic form using a winzipped file. A more precise rundown of the final requirement will be given two weeks before the project is due.

Remember, it is critical that you put together a professional, well-organized document of your project. Sample final (Phase III) reports will be distributed in the coming weeks.