

## WEBD 236 Homework 7

Answer the following questions based on your reading of the text book, any supplemental material, and the instructor's presentation this week. If you use an external source (i.e. a web-page, the required textbook, or an additional book) to help you answer the questions, be sure to cite that source. You should probably always be citing a source.

### Project Scenario

You have been contracted to design a database for "behemoth.com," an online resume posting site that connects potential employers/recruiters with people looking for jobs. Behemoth.com is specifically targeting knowledge workers (they could be technologists, but could also be engineers, chemists, doctors, or other skilled professionals). Your particular part of the job is to design a database that keeps resume information.

Typical resumes consist of a job seeker and his/her contact information, employment objectives, work experience, education, skills, professional organizations, and publications. Some of these can only appear once on a resume, other can appear multiple times. Some of these need to be broken down more (e.g. work experience generally includes job title, start date, end date, employer, and description information). Moreover, job seekers can have multiple resumes active that are targeted to different job types (e.g. software engineer, test engineer, web developer, etc.)

### Questions

1. **[5 points]** Create a third normal form Crow's foot ERD that models the resume problem above.
2. **[5 points]** Create the DDL statements that will build the appropriate tables, indices, and constraints.
3. **[5 points]** Describe (you need not write code) how would convert the ERD and DDL into a set of object-oriented classes in PHP that represent the data model.
4. **[5 points]** Users need to be able to recover forgotten passwords for web applications. Describe, in detail, how you would integrate password recovery into your lab assignments. You do not need to write code here, but you should be able to convince someone that you know how to write this code. Answer the question based on your application storing the plain-text password in the database.
5. **[5 points]** How would your password recovery answer change if you stored a hash of the password in the database instead of the plain-text password?

### Submission instructions

Create a single Word document with the solutions to the questions. Submit the Word document to the dropbox for the course.