

**PWSP DATABASE MANAGEMENT CLASS**  
**STUDENT PLACEMENT DATABASE DESIGN PROBLEM**  
**FEBRUARY 26-27, 2007**  
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**Instructions:** Read the following case and identify the entities. For each entity, identify the attributes and relationships. List all possible keys for each entity and select a suitable primary key. Draw an entity relationship model.

**Description:** The School of Business would like to help its MBA students with placement in various companies and firms. To facilitate this, they need to design a database with the primary purpose of scheduling interviews and facilitating searches by students and companies that are looking for candidates. The database should have information about students, job openings, companies, interviewers, interviews, and conference rooms for interviews. Students have a lot of information that needs to be processed. This includes a first name, last name, student id number, social security number, concentration, and expected graduation date. Companies post job openings that students can apply for. The job posting date is recorded as well as the deadline of the posting. Also included is the title of the position, base salary, minimum requirements, and description. Students apply for open positions in companies and the date and time of each application is recorded. Students should also be able to see the status of their application (whether there will be a follow-up interview and whether they were turned down for the position). Interviews can be facilitated by the University or because of job openings and need to have a date, time, and conference room location. Multiple students can be interviewed at the same time and multiple interviewers can participate in a student interview. Companies send employees who interview students. An employee has an employee id, room #, telephone #, fax #, and position title. The company keeps track of which employees interviewed which students as well as the result of the interview (if it resulted in a job offer and/or hiring). A company has an identifier, name, main contact #, and main fax number. A company from the Business School reserves conference rooms and the company needs to specify the resources needed (e.g. computer, projector, etc.). There are multiple conference rooms and multiple instances of the same resource (e.g. there may be three projectors). The School should be able to track which company hired which students as well as how many students came from which concentration. In addition, such statistics as the average salary for the jobs per year should be available. Students should also be able to track their job offers.