

**DBT\_Assignment\_1**

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**A university DB contains information about professors (identified by SIN) and courses (identified by course ID). Professors teach courses; each of the following situations concerns the Teaches relationship set.**

**List all candidate keys of the Teaches relationship set.**

**a. Professors can teach the same course in several semesters, and each offering must be recorded.**

**b. Professors can teach the same course in several semesters, but only the most recent such offering needs to be records.**

**Assume the above Situation (b) applies in all subsequent situations.**

**List all the keys possible in each of the following situations.**

**a. Every professor teaches a course, and every course is taught by some professor.**

**b. Every professor teaches exactly one course, and every course is taught by exactly one professor.**

**Answer:**

**Primary keys:** Professor\_Id(SIN), Course\_ID , Teaches\_Id

**Candidate keys:** Professor\_Id(SIN), Course\_ID , Teaches\_Id, dept\_name, semesters

**Foreign keys:** course\_ID, Professor\_Id(SIN)

