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Attribute Analysis

**course\_name:**

Course name is currently a VARCHAR(45), not null. This attribute is well rounded for its purpose, not being null insures that the class will have a name attached to its id. It is possible that 45 characters could not fit full class names in some cases, so a possible move to a larger character count could be recommended, but I do not believe that it will be a problem (This would need to be reviewed with the client).

**room\_type:**

Room\_type is currently a VARCHAR(45), not null. However, I believe that it should be changed into its own entity. If the client were to add new room types or change the name of a type of room it would need to be changed in every slot. Relocating it as a separate entity with an id and then a string for the room type would increase database efficiency long term and decrease the data size needed in the database.

**Candidate Key Identification:**

|  |  |
| --- | --- |
| Entity | Candidate Key(s) |
| Student | sid |
| StudentCourse | CompositeKey(sid,course\_id) |
| Professor | pid |
| ProfessorCourse | CompositeKey(pid, course\_id, course\_section) |
| Building | bid, bname |
| Room | compositeKey(bid, room\_num) |
| CourseRoom | CompositeKey(bid, room\_num, course\_id, course\_section) |
| Course | CompositeKey(course\_id, course\_section) |