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Exercise: Primary Keys

For each of the classes you defined in the “Designing Classes” homework, define the primary key and explain your choice.

We’ll discuss your answers in class.

1. Student at a university

* Primary Key = Name & Cell Phone number
  + A cell phone number is a unique number that only one person will have. Since no two people will have the same cell phone number, the cell phone number and name, or just the cell phone, is a good primary key

1. A faculty member at a university

* Primary key = name, department, classes teaching
  + A university would not have two people with the same exact name teaching in the same department, and teaching the same exact classes. Furthermore, typically only one faculty member teaches a class section.

1. A work of art that is displayed in a gallery or museum

* Primary key = Art name, artist name, date created
  + An artist would not make two pieces of work with the same name on the same day

1. An automobile that is registered with the Motor Vehicle Department

* Primary key = VIN
  + A VIN is a unique identifier that is different for every single car, and is a valid candidate for a primary key

1. A pizza that is on the menu at a restaurant

* Primary key = Name / description
  + No two pizzas will have the same exact name/description. For example, a cheese or peperoni pizza would not appear on the menu more than once.