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Assignment 2 Normal Form Justifications

- Person
  1NF: All attribute values are atomic.
  2NF: pid is the only candidate key and is singular, thus fully functionally determines all the attributes in the relation.
  3NF: There are no transitive dependencies. (One could argue that postal code determines state, but since this is on a global level, I make no assumptions as to what type of postal code is being used.)
  BCNF: pid is the only determinate and is a candidate key.

- PrevNames
  1NF: All attribute values are atomic.
  2NF: pid is the only candidate key and is singular, thus fully functionally determines all the attributes in the relation.
  3NF: There are no transitive dependencies.
  BCNF: pid is the only determinate and is a candidate key.

- Association
  1NF: All attribute values are atomic.
  2NF: Only one determinate.
  3NF: There are no transitive dependencies.
  BCNF: All attributes are prime.

- Event
  1NF: All attribute values are atomic.
  2NF: eid is the only candidate key and is singular, thus fully functionally determines all the attributes in the relation.
  3NF: There are no transitive dependencies.
  BCNF: eid is the only determinate and is a candidate key.

- Present
  1NF: All attribute values are atomic.
  2NF: Only one determinate.
  3NF: There are no transitive dependencies.
  BCNF: All attributes are prime.

- User
  1NF: All attribute values are atomic.
  2NF: username and email are the only candidate key and are singular, thus fully functionally determine all other attributes in the relation.
  3NF: There are no transitive dependencies.
  BCNF: username and email are the only determinates but are also each candidate keys.
  For clarification, my FDs are:
  username → passHash, firstName, middleNameOrInitial, lastName, email
  email → username

- AuthorizedUser
  1NF: username is atomic.
  2NF: Only one determinate.
  3NF: Not enough attributes for transitive dependency.
  BCNF: username is prime.

- Admin
  1NF: username is atomic.
  2NF: Only one determinate.
  3NF: Not enough attributes for transitive dependency.
  BCNF: username is prime.