Relational Keys

- ## Superkey
  - An attribute, or a set of attributes, that uniquely identifies a tuple within a relation.

- ## Candidate Key
  - Superkey (K) such that no proper subset is a superkey within the relation.
    - In each tuple of R, values of K uniquely identify that tuple (uniqueness).
    - No proper subset of K has the uniqueness property (irreducibility).

Relational Keys

- ## Primary Key
  - Candidate key selected to identify tuples uniquely within relation.

- ## Alternate Keys
  - Candidate keys that are not selected to be primary key.

- ## Foreign Key
  - Attribute, or set of attributes, within one relation that matches candidate key of some (possibly same) relation.

Relation Examples

Primary Key

StoreID	Street	City	Zip
#1506	1200 W Dillon Rd	Louisville	80027
#1546	1600 29th Street	Boulder	80301
#1524	1271 Sheridan Blvd	Broomfield	80020
#1517	7125 W 88th Ave	Westminster	80021
#1548	16420 Washington Street	Thornton	80023
#1503	10003 Grant Street	Thornton	80229
#1502	5215 Wadsworth Blvd	Arvada	8002

Foreign Key

EmpID	FirstName	LastName	DoB	Position	Department	StoreID
#20399	John	Ford	1998/2/12	Manager	HR	#1506
#30123	Anne	Brand	2001/3/12	Intern	Marketing	#1546
#12524	David	Biden	2000/2/20	Assistant	Sales	#1524
#14517	William	Potter	2001/9/12	Senior Manager	HR	#1506
#15214	Mary	Alexander	2001/9/12	Assistant	IT	#1524
#11032	Rose	Smith	1999/1/21	Intern	IT	#1503
#02012	Julie	Smith	1977/12/1	Senior Manager	IT	#1503
#78123	Angela	White	1967/4/4	Senior Manager	HR	#1546
#21342	John	Ford	1983/11/11	Manager	IT	#1546