Consider the following four table definitions, together with all entries in each of the four tables.

CREATE TABLE Customer (
  SSN Integer, ...
  PRIMARY KEY (SSN));

CREATE TABLE Product (
  ProdID Integer, ...
  PRIMARY KEY (ProdId));

CREATE TABLE Account (
  SSN Integer NOT NULL,
  AccntNo Integer, ...
  PRIMARY KEY (AccntNo),
  FOREIGN KEY (SSN)
    REFERENCES Customer
    ON DELETE CASCADE);

CREATE TABLE Transaction (
  TransID Integer,
  AccntNo Integer,
  ProdId Integer, ...
  PRIMARY KEY (TransID),
  FOREIGN KEY (AccntNo)
    REFERENCES Account
    ON DELETE **NO ACTION**,
  FOREIGN KEY (ProdId)
    REFERENCES Product
    ON DELETE **NO ACTION**);

For now, consider synonymous with Restrict

Customer	**SSN**	**...**
	Ssn1	...
	Ssn2	...
	Ssn3	...

Product	**ProdID**	**...**
	Pid1	...
	Pid2	...
	Pid3	...

Account	**SSN**	**AccntNo**	**...**
	Ssn1	Acct1	...
	Ssn2	Acct4	...
	Ssn1	Acct2	...
	Ssn2	Acct3	...
	Ssn2	Acct5	...
	Ssn3	Acct6	...

Transaction	**TransID**	**AcctNo**	**ProdID**	**...**
	Tid1	Acct6	Pid3	...
	Tid2	Acct3	Pid2	...
	Tid3	Acct3	Pid3	...

Cross out all rows of each table that are deleted as a result of performing these delete operations in order (if you are using a pen, go slow):

DELETE FROM Transaction WHERE ProdID = Pid3;
DELETE FROM Customer WHERE SSN = Ssn1;
DELETE FROM Customer WHERE SSN = Ssn2;
DELETE FROM Customer WHERE SSN = Ssn3;
DELETE FROM Product WHERE ProdID = Pid1;
DELETE FROM Product WHERE ProdID = Pid2;
DELETE FROM Product WHERE ProdID = Pid3;

Consider the following four table definitions, together with all entries in each of the four tables.

CREATE TABLE Customer (
  SSN Integer, ...
  PRIMARY KEY (SSN));

CREATE TABLE Product (
  ProdID Integer, ...
  PRIMARY KEY (ProdId));

CREATE TABLE Account (
  SSN Integer NOT NULL,
  AccntNo Integer, ...
  PRIMARY KEY (AccntNo),
  FOREIGN KEY (SSN)
    REFERENCES Customer
    ON DELETE CASCADE);

CREATE TABLE Transaction (
  TransID Integer,
  AccntNo Integer,
  ProdId Integer, ...
  PRIMARY KEY (TransID),
  FOREIGN KEY (AccntNo)
    REFERENCES Account
    ON DELETE NO ACTION,
  FOREIGN KEY (ProdId)
    REFERENCES Product
    ON DELETE NO ACTION);

Customer	**SSN**	**...**
	Ssn1	...
	Ssn2	...
	Ssn3	...

Product	**ProdID**	**...**
	Pid1	...
	Pid2	...
	Pid3	...

Account	**SSN**	**AccntNo**	**...**
	Ssn1	Acct1	...
	Ssn2	Acct4	...
	Ssn1	Acct2	...
	Ssn2	Acct3	...
	Ssn2	Acct5	...
	Ssn3	Acct6	...

Transaction	**TransID**	**AcctNo**	**ProdID**	**...**
	Tid1	Acct6	Pid3	...
	Tid2	Acct3	Pid2	...
	Tid3	Acct3	Pid3	...

Cross out all rows of each table that are deleted as a result of performing these delete operations in order (if you are using a pen, go slow):

DELETE FROM Transaction WHERE ProdID = Pid3;
DELETE FROM Customer WHERE SSN = Ssn1;
DELETE FROM Customer WHERE SSN = Ssn2;
DELETE FROM Customer WHERE SSN = Ssn3;
DELETE FROM Product WHERE ProdID = Pid1;
DELETE FROM Product WHERE ProdID = Pid2;
DELETE FROM Product WHERE ProdID = Pid3;

Consider the following four table definitions, together with all entries in each of the four tables.

CREATE TABLE Customer (
  SSN Integer, ...
  PRIMARY KEY (SSN));

CREATE TABLE Product (
  ProdID Integer, ...
  PRIMARY KEY (ProdId));

CREATE TABLE Account (
  SSN Integer NOT NULL,
  AccntNo Integer, ...
  PRIMARY KEY (AccntNo),
  FOREIGN KEY (SSN)
    REFERENCES Customer
    ON DELETE CASCADE);

CREATE TABLE Transaction (
  TransID Integer,
  AccntNo Integer,
  ProdId Integer, ...
  PRIMARY KEY (TransID),
  FOREIGN KEY (AccntNo)
    REFERENCES Account
    ON DELETE NO ACTION,
  FOREIGN KEY (ProdId)
    REFERENCES Product
    ON DELETE NO ACTION);

Customer	**SSN**	**...**
	Ssn1	...
	Ssn2	...
	Ssn3	...

Product	**ProdID**	**...**
	Pid1	...
	Pid2	...
	Pid3	...

Account	**SSN**	**AccntNo**	**...**
	Ssn1	Acct1	...
	Ssn2	Acct4	...
	Ssn1	Acct2	...
	Ssn2	Acct3	...
	Ssn2	Acct5	...
	Ssn3	Acct6	...

Transaction	**TransID**	**AcctNo**	**ProdID**	**...**
	~~Tid1~~	~~Acct6~~	~~Pid3~~	~~...~~
	Tid2	Acct3	Pid2	...
	~~Tid3~~	~~Acct3~~	~~Pid3~~	~~...~~

Cross out all rows of each table that are deleted as a result of performing these delete operations in order (if you are using a pen, go slow):

DELETE FROM Transaction WHERE ProdID = Pid3;
DELETE FROM Customer WHERE SSN = Ssn1;
DELETE FROM Customer WHERE SSN = Ssn2;
DELETE FROM Customer WHERE SSN = Ssn3;
DELETE FROM Product WHERE ProdID = Pid1;
DELETE FROM Product WHERE ProdID = Pid2;
DELETE FROM Product WHERE ProdID = Pid3;

Consider the following four table definitions, together with all entries in each of the four tables.

CREATE TABLE Customer (
  SSN Integer, ...
  PRIMARY KEY (SSN));

CREATE TABLE Product (
  ProdID Integer, ...
  PRIMARY KEY (ProdId));

CREATE TABLE Account (
  SSN Integer NOT NULL,
  AccntNo Integer, ...
  PRIMARY KEY (AccntNo),
  FOREIGN KEY (SSN)
    REFERENCES Customer
    ON DELETE CASCADE);

CREATE TABLE Transaction (
  TransID Integer,
  AccntNo Integer,
  ProdId Integer, ...
  PRIMARY KEY (TransID),
  FOREIGN KEY (AccntNo)
    REFERENCES Account
    ON DELETE NO ACTION,
  FOREIGN KEY (ProdId)
    REFERENCES Product
    ON DELETE NO ACTION);

Customer	SSN	...
	~~Ssn1~~	~~...~~
	Ssn2	...
	Ssn3	...

Product	ProdID	...
	Pid1	...
	Pid2	...
	Pid3	...

Account	SSN	AccntNo	...
	~~Ssn1~~	~~Acct1~~	~~...~~
	Ssn2	Acct4	...
	~~Ssn1~~	~~Acct2~~	~~...~~
	Ssn2	Acct3	...
	Ssn2	Acct5	...
	Ssn3	Acct6	...

Transaction	TransID	AcctNo	ProdID	...
	~~Tid1~~	~~Acct6~~	~~Pid3~~	~~...~~
	Tid2	Acct3	Pid2	...
	~~Tid3~~	~~Acct3~~	~~Pid3~~	~~...~~

Cross out all rows of each table that are deleted as a result of performing these delete operations in order (if you are using a pen, go slow):

DELETE FROM Transaction WHERE ProdID = Pid3;
DELETE FROM Customer WHERE SSN = Ssn1;
→ DELETE FROM Customer WHERE SSN = Ssn2;
DELETE FROM Customer WHERE SSN = Ssn3;
DELETE FROM Product WHERE ProdID = Pid1;
DELETE FROM Product WHERE ProdID = Pid2;
DELETE FROM Product WHERE ProdID = Pid3;

Consider the following four table definitions, together with all entries in each of the four tables.

CREATE TABLE Customer (
  SSN Integer, ...
  PRIMARY KEY (SSN));

CREATE TABLE Product (
  ProdID Integer, ...
  PRIMARY KEY (ProdId));

CREATE TABLE Account (
  SSN Integer NOT NULL,
  AccntNo Integer, ...
  PRIMARY KEY (AccntNo),
  FOREIGN KEY (SSN)
    REFERENCES Customer
    ON DELETE CASCADE);

CREATE TABLE Transaction (
  TransID Integer,
  AccntNo Integer,
  ProdId Integer, ...
  PRIMARY KEY (TransID),
  FOREIGN KEY (AccntNo)
    REFERENCES Account
    ON DELETE NO ACTION,
  FOREIGN KEY (ProdId)
    REFERENCES Product
    ON DELETE NO ACTION);

Customer

SSN	...
~~Ssn1~~	~~...~~
Ssn2	...
Ssn3	...

Product

ProdID	...
Pid1	...
Pid2	...
Pid3	...

Account

SSN	AccntNo	...
~~Ssn1~~	~~Acct1~~	~~...~~
Ssn2	Acct4	...
~~Ssn1~~	~~Acct2~~	~~...~~
Ssn2	Acct3	...
Ssn2	Acct5	...
Ssn3	Acct6	...

Transaction

TransID	AcctNo	ProdID	...
~~Tid1~~	~~Acct6~~	~~Pid3~~	~~...~~
Tid2	**Acct3**	Pid2	...
~~Tid3~~	~~Acct3~~	~~Pid3~~	~~...~~

Blocks DELETE of Ssn2

Cross out all rows of each table that are deleted as a result of performing these delete operations in order (if you are using a pen, go slow):

DELETE FROM Transaction WHERE ProdID = Pid3;
DELETE FROM Customer WHERE SSN = Ssn1;
DELETE FROM Customer WHERE SSN = Ssn2;
→ **DELETE FROM Customer WHERE SSN = Ssn3;**
DELETE FROM Product WHERE ProdID = Pid1;
DELETE FROM Product WHERE ProdID = Pid2;
DELETE FROM Product WHERE ProdID = Pid3;

Consider the following four table definitions, together with all entries in each of the four tables.

CREATE TABLE Customer (
  SSN Integer, ...
  PRIMARY KEY (SSN));

CREATE TABLE Product (
  ProdID Integer, ...
  PRIMARY KEY (ProdId));

CREATE TABLE Account (
  SSN Integer NOT NULL,
  AccntNo Integer, ...
  PRIMARY KEY (AccntNo),
  FOREIGN KEY (SSN)
    REFERENCES Customer
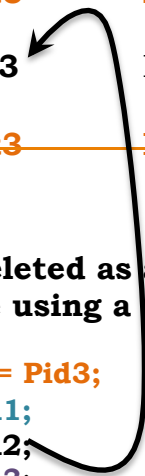   ON DELETE CASCADE);

CREATE TABLE Transaction (
  TransID Integer,
  AccntNo Integer,
  ProdId Integer, ...
  PRIMARY KEY (TransID),
  FOREIGN KEY (AccntNo)
    REFERENCES Account
    ON DELETE NO ACTION,
  FOREIGN KEY (ProdId)
    REFERENCES Product
    ON DELETE NO ACTION);

Customer	**SSN**	**...**
~~Ssn1~~	~~...~~
Ssn2	...
~~Ssn3~~	~~...~~

Product	**ProdID**	**...**
Pid1	...
Pid2	...
Pid3	...

Account	**SSN**	**AccntNo**	**...**
~~Ssn1~~	~~Acct1~~	~~...~~
Ssn2	Acct4	...
~~Ssn1~~	~~Acct2~~	~~...~~
Ssn2	Acct3	...
Ssn2	Acct5	...
~~Ssn3~~	~~Acct6~~	~~...~~

Transaction	**TransID**	**AcctNo**	**ProdID**	**...**
~~Tid1~~	~~Acct6~~	~~Pid3~~	~~...~~
Tid2	**Acct3**	Pid2	...
~~Tid3~~	~~Acct3~~	~~Pid3~~	~~...~~

Cross out all rows of each table that are deleted as a result of performing these delete operations in order (if you are using a pen, go slow):

DELETE FROM Transaction WHERE ProdID = Pid3;
DELETE FROM Customer WHERE SSN = Ssn1;
DELETE FROM Customer WHERE SSN = Ssn2;
DELETE FROM Customer WHERE SSN = Ssn3;
DELETE FROM Product WHERE ProdID = Pid1;
DELETE FROM Product WHERE ProdID = Pid2;
DELETE FROM Product WHERE ProdID = Pid3;

Consider the following four table definitions, together with all entries in each of the four tables.

CREATE TABLE Customer (
  SSN Integer, ...
  PRIMARY KEY (SSN));

CREATE TABLE Product (
  ProdID Integer, ...
  PRIMARY KEY (ProdId));

CREATE TABLE Account (
  SSN Integer NOT NULL,
  AccntNo Integer, ...
  PRIMARY KEY (AccntNo),
  FOREIGN KEY (SSN)
    REFERENCES Customer
    ON DELETE CASCADE);

CREATE TABLE Transaction (
  TransID Integer,
  AccntNo Integer,
  ProdId Integer, ...
  PRIMARY KEY (TransID),
  FOREIGN KEY (AccntNo)
    REFERENCES Account
    ON DELETE NO ACTION,
  FOREIGN KEY (ProdId)
    REFERENCES Product
    ON DELETE NO ACTION);

Customer	**SSN**	**...**
	~~Ssn1~~	~~...~~
	Ssn2	...
	~~Ssn3~~	~~...~~

Product	**ProdID**	**...**
	~~Pid1~~	~~...~~
	Pid2	...
	Pid3	...

Account	**SSN**	**AccntNo**	**...**
	~~Ssn1~~	~~Acct1~~	~~...~~
	Ssn2	Acct4	...
	~~Ssn1~~	~~Acct2~~	~~...~~
	Ssn2	Acct3	...
	Ssn2	Acct5	...
	~~Ssn3~~	~~Acct6~~	~~...~~

Transaction	**TransID**	**AcctNo**	**ProdID**	**...**
	~~Tid1~~	~~Acct6~~	~~Pid3~~	~~...~~
	Tid2	**Acct3**	Pid2	...
	~~Tid3~~	~~Acct3~~	~~Pid3~~	~~...~~

Cross out all rows of each table that are deleted as a result of performing these delete operations in order (if you are using a pen, go slow):

DELETE FROM Transaction WHERE ProdID = Pid3;
DELETE FROM Customer WHERE SSN = Ssn1;
DELETE FROM Customer WHERE SSN = Ssn2;
DELETE FROM Customer WHERE SSN = Ssn3;
DELETE FROM Product WHERE ProdID = Pid1;
DELETE FROM Product WHERE ProdID = Pid2;
DELETE FROM Product WHERE ProdID = Pid3;

Consider the following four table definitions, together with all entries in each of the four tables.

CREATE TABLE Customer (
  SSN Integer, ...
  PRIMARY KEY (SSN));

CREATE TABLE Product (
  ProdID Integer, ...
  PRIMARY KEY (ProdId));

CREATE TABLE Account (
  SSN Integer NOT NULL,
  AccntNo Integer, ...
  PRIMARY KEY (AccntNo),
  FOREIGN KEY (SSN)
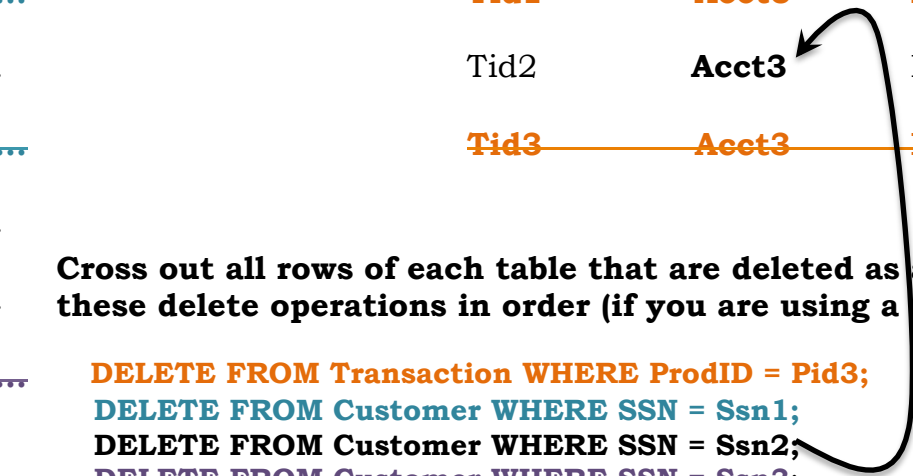   REFERENCES Customer
    ON DELETE CASCADE);

CREATE TABLE Transaction (
  TransID Integer,
  AccntNo Integer,
  ProdId Integer, ...
  PRIMARY KEY (TransID),
  FOREIGN KEY (AccntNo)
    REFERENCES Account
    ON DELETE NO ACTION,
  FOREIGN KEY (ProdId)
    REFERENCES Product
    ON DELETE NO ACTION);

Customer	SSN	...
	~~Ssn1~~	~~...~~
	Ssn2	...
	~~Ssn3~~	~~...~~

Product	ProdID	...
	~~Pid1~~	~~...~~
	Pid2	...
	Pid3	...

Account	SSN	AccntNo	...
	~~Ssn1~~	~~Acct1~~	~~...~~
	Ssn2	Acct4	...
	~~Ssn1~~	~~Acct2~~	~~...~~
	Ssn2	Acct3	...
	Ssn2	Acct5	...
	~~Ssn3~~	~~Acct6~~	~~...~~

Transaction	TransID	AcctNo	ProdID	...
	~~Tid1~~	~~Acct6~~	~~Pid3~~	~~...~~
	Tid2	**Acct3**	**Pid2**	...
	~~Tid3~~	~~Acct3~~	~~Pid3~~	~~...~~

Blocks DELETE of Pid2

Cross out all rows of each table that are deleted as a result of performing these delete operations in order (if you are using a pen, go slow):

DELETE FROM Transaction WHERE ProdID = Pid3;
DELETE FROM Customer WHERE SSN = Ssn1;
DELETE FROM Customer WHERE SSN = Ssn2;
DELETE FROM Customer WHERE SSN = Ssn3;
DELETE FROM Product WHERE ProdID = Pid1;
DELETE FROM Product WHERE ProdID = Pid2;
DELETE FROM Product WHERE ProdID = Pid3;

Consider the following four table definitions, together with all entries in each of the four tables.

CREATE TABLE Customer (
  SSN Integer, ...
  PRIMARY KEY (SSN));

CREATE TABLE Product (
  ProdID Integer, ...
  PRIMARY KEY (ProdId));

CREATE TABLE Account (
  SSN Integer NOT NULL,
  AccntNo Integer, ...
  PRIMARY KEY (AccntNo),
  FOREIGN KEY (SSN)
    REFERENCES Customer
    ON DELETE CASCADE);

CREATE TABLE Transaction (
  TransID Integer,
  AccntNo Integer,
  ProdId Integer, ...
  PRIMARY KEY (TransID),
  FOREIGN KEY (AccntNo)
    REFERENCES Account
    ON DELETE NO ACTION,
  FOREIGN KEY (ProdId)
    REFERENCES Product
    ON DELETE NO ACTION);

Customer

SSN	...
~~Ssn1~~	~~...~~
Ssn2	...
~~Ssn3~~	~~...~~

Product

ProdID	...
~~Pid1~~	~~...~~
Pid2	...
~~Pid3~~	~~...~~

Account

SSN	AccntNo	...
~~Ssn1~~	~~Acct1~~	~~...~~
Ssn2	Acct4	...
~~Ssn1~~	~~Acct2~~	~~...~~
Ssn2	Acct3	...
Ssn2	Acct5	...
~~Ssn3~~	~~Acct6~~	~~...~~

Transaction

TransID	AcctNo	ProdID	...
~~Tid1~~	~~Acct6~~	~~Pid3~~	~~...~~
Tid2	**Acct3**	**Pid2**	...
~~Tid3~~	~~Acct3~~	~~Pid3~~	~~...~~

Blocks DELETE of Pid2

Cross out all rows of each table that are deleted as a result of performing these delete operations in order (if you are using a pen, go slow):

DELETE FROM Transaction WHERE ProdID = Pid3;
DELETE FROM Customer WHERE SSN = Ssn1;
DELETE FROM Customer WHERE SSN = Ssn2;
DELETE FROM Customer WHERE SSN = Ssn3;
DELETE FROM Product WHERE ProdID = Pid1;
DELETE FROM Product WHERE ProdID = Pid2;
DELETE FROM Product WHERE ProdID = Pid3;