SSN Inte PRIMAR	Y KEY (SS	N));	SS Ac PR	N Integer N cntNo Integ IMARY KEY	er, (AccntNo),	C	CREATE TABLE Transaction ( TransID Integer, AccntNo Integer, ProdId Integer,				
ProdID l	TABLE Pro Integer, Y KEY (Pro	`	FO		7 (SSN) CES Custom ΓΕ CASCADE		PRIMARY KEY (T FOREIGN KEY (A REFERENCE ON DELETE FOREIGN KEY (F	acentNo) S Account <b>NO ACTION</b> ,		v, consider mous with	
Customer	SSN	•••	<u>]</u>	<u>Product</u>	ProdID	•••	REFERENCE ON DELETE	S Product // NO ACTION);			
	Ssn1				Pid1			,,			
	Ssn2				Pid2						
	Ssn3	•••			Pid3	•••					
<u>Account</u>	SSN	AccntNo	•••	<u>Tran</u>	saction	Trans	ID AcctNo	ProdID	•••		
	Ssn1	Acct1	•••			Tid1	Acct6	Pid3			
	Ssn2	Acct4	•••			Tid2	Acct3	Pid2			
	Ssn1	Acct2				Tid3	Acct3	Pid3			
	Ssn2	Acct3									
	Ssn2	Acct5					e that are delet er (if you are us		-	rming	
	Ssn3	Acct6		DELETE F DELETE F DELETE F	ROM Custon ROM Custon ROM Custon ROM Produc	mer WHE mer WHE mer WHE ct WHER	HERE ProdID = P CRE SSN = Ssn1; CRE SSN = Ssn2; CRE SSN = Ssn3; E ProdID = Pid1; E ProdID = Pid2;	i <b>d</b> 3;			

**DELETE FROM Product WHERE ProdID = Pid3**;

CREATE T SSN Integ PRIMARY		`	CREATE TABLE SSN Integer No AccntNo Integer PRIMARY KEY	OT NULL, `er,		CREATE TABLE Transaction ( TransID Integer, AccntNo Integer, ProdId Integer,			
CREATE T	ABLE Proc	luct (	FOREIGN KEY	` ''		PRIMARY KEY (TransID),			
ProdID In	iteger,		REFEREN	CES Custome	er	FOREIGN KEY (AccntNo)			
PRIMARY	KEY (Prod	1Id));	ON DELET	E CASCADE	);	REFERENCES Account ON DELETE NO ACTION, FOREIGN KEY (ProdId)			
<u>ustomer</u>	SSN	•••	<b>Product</b>	ProdID	•••	REFERENCES Product ON DELETE NO ACTION);			
	Ssn1			Pid1		,			
	Ssn2			Pid2	•••				
	Ssn3	•••		Pid3	•••				

<u>Account</u>	SSN	AccntNo	•••	<b>Transaction</b>	TransID	AcctNo	ProdID	•••				
	Ssn1	Acct1 .	•••		Tid1	Acct6	Pid3					
	Ssn2	Acct4 .	•••		Tid2	Acct3	Pid2					
	Ssn1	Acct2 .	•••		Tid3	Acct3	Pid3					
	Ssn2	Acct3 .	••									
	Ssn2	Acct5 .		ss out all rows of e se delete operation								
	Ssn3	Acct6 .	Di Di Di Di	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;								

CREATE TA SSN Integ PRIMARY CREATE TA	ger, KEY (SSN	());	CREATE TABLE SSN Integer NO AccntNo Intege PRIMARY KEY FOREIGN KEY	OT NULL, `er, (AccntNo),	CREATE TABLE Transaction ( TransID Integer, AccntNo Integer, ProdId Integer, PRIMARY KEY (TransID),	
ProdID In PRIMARY	teger, KEY (Prod	ild));		CES Custom E CASCADE		FOREIGN KEY (AccntNo) REFERENCES Account ON DELETE NO ACTION, FOREIGN KEY (ProdId)
<u>Customer</u>	SSN	•••	<b>Product</b>	ProdID	•••	REFERENCES Product ON DELETE NO ACTION);
	Ssn1	•••		Pid1	•••	
	Ssn2			Pid2	•••	
	0 0			D' 10		

	Ssn3	•••		Pid3	•••						
<u>Account</u>	SSN	AccntNo	•	<u>Transaction</u>	TransID	AcctNo	ProdID	•••			
	Ssn1	Acct1	•••		Tid1	Acct6	Pid3	***			
	Ssn2	Acct4			Tid2	Acct3	Pid2				
	Ssn1	Acct2			Tid3	Acct3	Pid3	•••			
	Ssn2	Acct3									
	Ssn2	Acct5	•••	Cross out all rows of e these delete operation				-	ng		
Ssn3 Acct6 .				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**;

CREATE TABLE Customer ( SSN Integer, PRIMARY KEY (SSN));  CREATE TABLE Product ( ProdID Integer,		CREATE TABLE SSN Integer NO AccentNo Integer PRIMARY KEY FOREIGN KEY	OT NULL, er, (AccntNo),	er	CREATE TABLE Transaction ( TransID Integer, AccntNo Integer, ProdId Integer, PRIMARY KEY (TransID), FOREIGN KEY (AccntNo)	
PRIMARY  Customer	0 /	dId));		E CASCADE  ProdID		REFERENCES Account ON DELETE NO ACTION, FOREIGN KEY (ProdId) REFERENCES Product ON DELETE NO ACTION);
_	Ssn1	***		Pid1		ON DELETE NO ACTION),
	Ssn2	•••		Pid2		
	Ssn3			Pid3		

	58113	•••		P103	•••			
<u>Account</u>	SSN	AccntNo	•••	<u>Transaction</u>	TransID	AcctNo	ProdID	•••
	Ssn1	Acct1	• • •		Tid1	Acct6	Pid3	***
	Ssn2	Acct4	•••		Tid2	Acct3	Pid2	
	Ssn1	Acct2	***		Tid3	Acct3	Pid3	•••
	Ssn2	Acct3						
	Ssn2	Acct5		ross out all rows of e hese delete operation				
	Ssn3	Acct6	 →	DELETE FROM Trans DELETE FROM Custo DELETE FROM Custo DELETE FROM Custo DELETE FROM Produ DELETE FROM Produ	omer WHERE Somer WHERE Somer WHERE So	SSN = Ssn1; SSN = Ssn2; SSN = Ssn3; odID = Pid1;	<b>d3</b> ;	

**DELETE FROM Product WHERE ProdID = Pid3**;

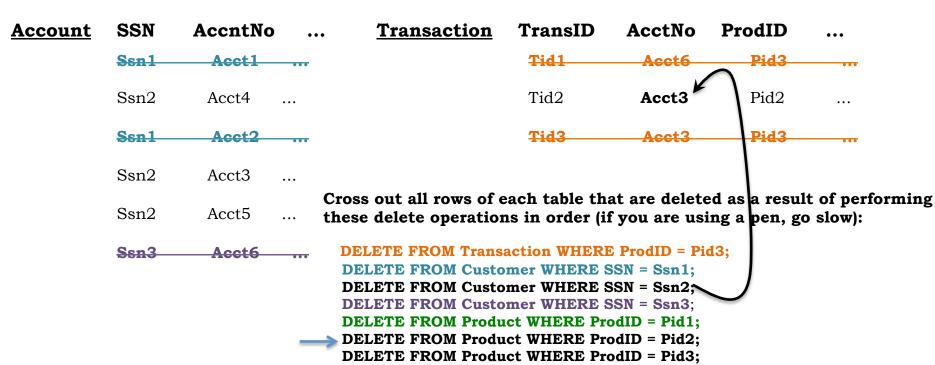
CREATE TA SSN Integ PRIMARY		,	CREATE TABLE SSN Integer No AccentNo Integer PRIMARY KEY	OT NULL, `er,		CREATE TABLE Transaction ( TransID Integer, AccntNo Integer, ProdId Integer,					
CREATE TA	ABLE Proc	duct (	FOREIGN KEY	,	PRIMARY KEY (TransID),						
ProdID In	teger,		REFEREN(	CES Custom	er	FOREIGN KEY (AccntNo)					
	KEY (Prod	dId));		E CASCADE	);	REFERENCES Account ON DELETE NO ACTION, FOREIGN KEY (ProdId) REFERENCES Product					
<u>ustomer</u>	SSN	•••	<u>Product</u>	ProdID	•••	ON DELETE NO ACTION);					
	Ssn1	•••		Pid1	•••						
	Ssn2	•••		Pid2							
	Ssn3	•••		Pid3							

Account	SSN	AccntNo	•••	<u>Transaction</u>	TransID	AcctNo	ProdID	•••
	Ssn1	Acct1	***		Tid1	Acct6	Pid3	***
	Ssn2	Acct4	•••		Tid2	Acct3	Pid2	
	Ssn1	Acct2	***		Tid3	Acct3	Pid3	***
	Ssn2	Acct3					1	DELETE of Ssn2
	Ssn2	Acct5		Cross out all rows of entrese delete operation				
	Ssn3	Acct6	····	DELETE FROM Trans DELETE FROM Custo DELETE FROM Custo DELETE FROM Produ DELETE FROM Produ DELETE FROM Produ DELETE FROM Produ	omer WHERE Somer WHERE Somer WHERE Somer WHERE Project WHERE WHERE Project WHERE W	SSN = Ssn1; SSN = Ssn2; SSN = Ssn3; odID = Pid1; odID = Pid2;	d3;	

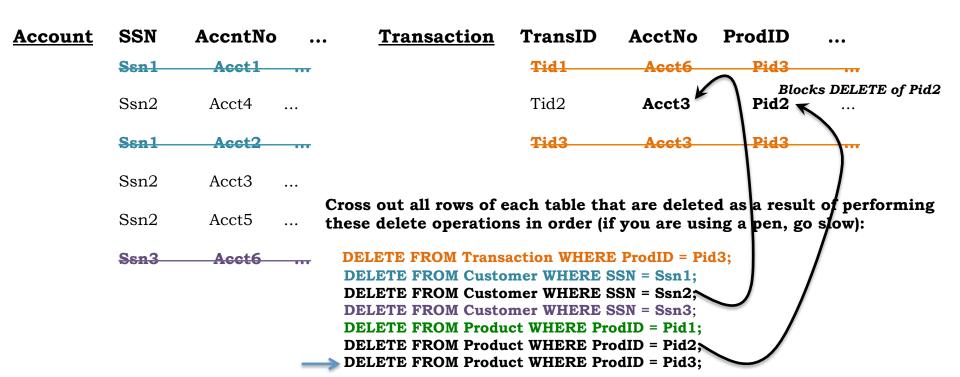
**CREATE TABLE Customer** ( **CREATE TABLE Account** ( **CREATE TABLE Transaction** ( SSN Integer, ... SSN Integer NOT NULL, TransID Integer, PRIMARY KEY (SSN)); AccntNo Integer, ... AccntNo Integer, PRIMARY KEY (AccntNo), ProdId Integer, ... **CREATE TABLE Product** ( FOREIGN KEY (SSN) PRIMARY KEY (TransID), ProdID Integer, ... **REFERENCES Customer** FOREIGN KEY (AccntNo) ON DELETE CASCADE); PRIMARY KEY (ProdId)); **REFERENCES Account** ON DELETE NO ACTION, FOREIGN KEY (ProdId) **REFERENCES Product ProdID** Customer SSN Product ON DELETE NO ACTION); Ssn1 Pid1 ... Pid2 Ssn2 Ssn3 Pid3

<u>Account</u>	SSN	AccntNo	•••	<u>Transaction</u>	TransID	AcctNo	ProdID	•••
	Ssn1	Acct1	***		Tid1	Acct6	Pid3	***
	Ssn2	Acct4			Tid2	Acct3	Pid2	
	Ssn1	Acct2	•••		Tid3	Acct3	Pid3	•••
	Ssn2	Acct3					. \ .	
	Ssn2	Acct5		oss out all rows of e ese delete operation				
	Ssn3	Acct6	$\rightarrow$	DELETE FROM Trans DELETE FROM Custo DELETE FROM Custo DELETE FROM Custo DELETE FROM Produ DELETE FROM Produ DELETE FROM Produ	omer WHERE Somer WHERE Somer WHERE Somer WHERE Project WHERE WHERE Project WHERE Proje	SSN = Ssn1; SSN = Ssn2; SSN = Ssn3; odID = Pid1; odID = Pid2;	d3;	

**CREATE TABLE Customer** ( **CREATE TABLE Account ( CREATE TABLE Transaction** ( SSN Integer NOT NULL, TransID Integer. SSN Integer, ... PRIMARY KEY (SSN)); AccntNo Integer, ... AccntNo Integer, PRIMARY KEY (AccntNo), ProdId Integer, ... **CREATE TABLE Product** ( FOREIGN KEY (SSN) PRIMARY KEY (TransID), ProdID Integer, ... **REFERENCES Customer** FOREIGN KEY (AccntNo) PRIMARY KEY (ProdId)); ON DELETE CASCADE); **REFERENCES Account** ON DELETE NO ACTION, FOREIGN KEY (ProdId) **REFERENCES Product** SSN **Product ProdID** Customer ON DELETE NO ACTION); Ssn1 Pid1 Pid2 Ssn2 Ssn3 Pid3 SSN AccntNo **Transaction TransID** AcctNo **ProdID** 



**CREATE TABLE Customer** ( **CREATE TABLE Account ( CREATE TABLE Transaction** ( SSN Integer NOT NULL, TransID Integer. SSN Integer, ... PRIMARY KEY (SSN)); AccntNo Integer, ... AccntNo Integer, PRIMARY KEY (AccntNo), ProdId Integer, ... **CREATE TABLE Product** ( FOREIGN KEY (SSN) PRIMARY KEY (TransID), ProdID Integer, ... **REFERENCES Customer** FOREIGN KEY (AccntNo) ON DELETE CASCADE); PRIMARY KEY (ProdId)); **REFERENCES Account** ON DELETE NO ACTION, FOREIGN KEY (ProdId) **REFERENCES Product** SSN **Product ProdID** Customer ON DELETE NO ACTION); Ssn1 Pid1 Pid2 Ssn2 Ssn3 Pid3



**CREATE TABLE Customer** ( **CREATE TABLE Account ( CREATE TABLE Transaction** ( SSN Integer NOT NULL, TransID Integer. SSN Integer, ... PRIMARY KEY (SSN)); AccntNo Integer, ... AccntNo Integer, PRIMARY KEY (AccntNo), ProdId Integer, ... **CREATE TABLE Product** ( FOREIGN KEY (SSN) PRIMARY KEY (TransID), ProdID Integer, ... **REFERENCES Customer** FOREIGN KEY (AccntNo) PRIMARY KEY (ProdId)); ON DELETE CASCADE); **REFERENCES Account** ON DELETE NO ACTION, FOREIGN KEY (ProdId) **REFERENCES Product** SSN **Product ProdID** Customer ON DELETE NO ACTION); Ssn1 Pid1 Pid2 Ssn2 Ssn3 Pid3

