Employee		Project			AssignedTo	
EmpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
101	Jones	COMP231	Mobile App	107	COMP453	101
103	Smith	COMP278	Web Service	110	COMP354	103
104	Clark	COMP353	Database	104	COMP353	104
106	Byron	COMP354	OS	110	COMP453	104
107	Evans	COMP453	Database	101	COMP231	106
110	Drew				COMP278	106
112	Smith				COMP353	106
					COMP354	106
					COMP231	107
					COMP353	107
					COMP278	110
					COMP354	110
					COMP354	112
					COMP453	112

En	nployee		Project			AssignedTo	
	EmpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	Web Service	110	COMP354	103
	104	Clark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	106
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
Relations	Preser	nt				COMP278	110
Fmn	loyee					COMP354	110
Linp	•	NI o	CLIAD(2)			COMP354	112
	<u>Empl</u>		CHAR(3)			COMP453	112
	Emp	Name	VARCHAR(12)			
Proje	ect						
,	ProjN	NO.	CHAR(7)				
			• •				
	ProjE		VARCHAR(20)			
	Supe	rvisor	CHAR(3)				
Assia	gnedTo	0					
1 100.6	Proj i		CHAR(7)				
			` '				
	Emp	<u>NO</u>	CHAR(3)				

Employe	e	Project			AssignedTo	
EmpN	o EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
101	Jones	COMP231	Mobile App	107	COMP453	101
103	Smith	COMP278	Web Service	110	COMP354	103
104	Clark	COMP353	Database	104	COMP353	104
106	Byron	COMP354	OS	110	COMP453	104
107	Evans	COMP453	Database	101	COMP231	106
110	Drew				COMP278	106
112	Smith				COMP353	106
					COMP354	106
					COMP231	107
					COMP353	107
Relations Pres	ent				COMP278	110
Employe	ie.				COMP354	110
• •		CH V D (3)			COMP354	112
<u></u>	<u>ipNo</u>	CHAR(3)			COMP453	112
Em	ıpName	VARCHAR(12))			
Project						
=	ojNo	CHAR(7)				
		• •	١			
	ojDesc	VARCHAR(20))			
Su	pervisor	CHAR(3)				
Assigned	dTo					
Pro	ojNo	CHAR(7)				
	ipNo	CHAR(3)				
<u> </u>	ΙΡΙΝΟ	CHAN(3)				

	Employee		Project			AssignedTo	
	EmpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	Web Service	110	COMP354	103
	104	C lark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	106
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
R	elations Preser	nt				COMP278	110
	Employee					COMP354	110
	• •	M.	CHAD(2)			COMP354	112
4	<u>Empl</u>		CHAR(3)			COMP453	112
	Empl	Name	VARCHAR(12))			
	Project						
	-	_					
	<u>ProjN</u>	<u>10</u>	CHAR(7)				
	ProjE	Desc	VARCHAR(20)			
	,		•	•			

Supervisor

<u>ProjNo</u>

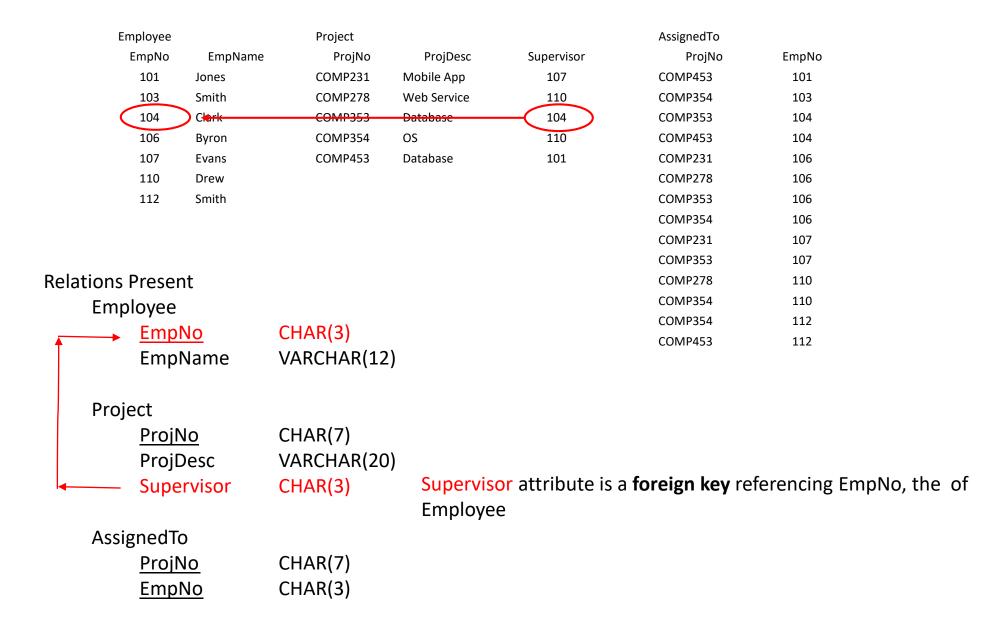
EmpNo

Assigned To

CHAR(3)

CHAR(7)

CHAR(3)



	Employee		Project			AssignedTo	
	EmpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	Web Service	110	COMP354	103
	104	Clark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	106
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
Relation	s Preser	nt				COMP278	110
Em	ployee					COMP354	110
	Emp	No	CHAR(3)			COMP354	112
			` '			COMP453	112
	Emp	Name	VARCHAR(12)				
Pro	oject						
	Projl	No.	CHAR(7)				
	Proj[VARCHAR(20)			_	_
	Supe	rvisor	CHAR(3)	Foreig	n key reference	es Employee(En	npNo)
Δς	signedTo	O					
713.	•		CHAD(7)				
	<u>Projl</u>	<u></u>	CHAR(7)				
	<u>Emp</u>	<u>No</u>	CHAR(3)				

Emp	oloyee		Project			AssignedTo	
Er	mpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	Web Service	110	COMP354	103
	104	Clark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	106
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
Relations P	resen ⁻	t				COMP278	110
Emplo	ovee					COMP354	110
•	•	lo.	CHAR(3)			COMP354	112
•	EmpN		` '			COMP453	112
	EmpN	lame	VARCHAR(12)				
Projec	ct						
	ProjN	0	CHAR(7)				
•	ProjD		VARCHAR(20)				
	•		, ,				- N1 - \
	Super	visor	CHAR(3)	Forei	gn key references	s Employee(Em	рио)
۸ a a :	a a dT-						
Assign							
	<u>ProjN</u>	<u>0</u>	CHAR(7)				
	EmpN	lo	CHAR(3)				
·	<u>ProjN</u> EmpN	<u></u>	CHAR(7) CHAR(3)				

Em	ployee		Project			AssignedTo	
E	mpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	✓ Web Service	110	COMP354	103
	104	Clark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	106
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
Relations F	resen	it				COMP278	110
Fmnl	ovee					COMP354	110
Employee <u>EmpNo</u>		u a	CLIAD(2)			COMP354	112
			CHAR(3)			COMP453	112
	Empl	Name	VARCHAR(1	2)			

Project

<u>ProjNo</u> CHAR(7)

ProjDesc VARCHAR(20)

Supervisor CHAR(3) Foreign key references Employee(EmpNo)

AssignedTo

ProjNoCHAR(7)

EmpNo CHAR(3)

Emp	oloyee		Project			AssignedTo	
Er	mpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	Web Service	110	COMP354	103
	104	Clark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	106
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
Relations P	resen	t				COMP278	110
Emplo	ovee					COMP354	110
•	• •		CH V D (2)			COMP354	112
	<u>EmpN</u>		CHAR(3)			COMP453	112
	Emp\	lame	VARCHAR(12)				
Projec	ct						
-	ProjN	0	CHAR(7)				
			` '				
	ProjD		VARCHAR(20)				
	Super	rvisor	CHAR(3)	Forei	gn key reference:	s Employee(Em	pNo)
Assig	nedTo)					
_	ProjN		CHAR(7)	Forei	gn key reference	s Project(ProjN	o)
			` '	10161	Bir Key Telefelle	3 i ioject(riojiv	o,
	EmpN	<u>10</u>	CHAR(3)				

	Employee		Project			AssignedTo	
	EmpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	Web Service	110	COMP354	103
	104	Clark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	106
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
Relation	is Preser	nt				COMP278	110
Employee					COMP354	110	
	•	No	CHAR(3)			COMP354	112
	<u>EmpNo</u>		• •			COMP453	112
	Empi	Name	VARCHAR(12)				
Pr	oject						
	ProjN	JO.	CHAR(7)				
	ProjD		VARCHAR(20)		_		
	Supe	rvisor	CHAR(3)	Foreig	n key reference	s Employee(Em	pNo)
Δς	signedTo	0					
713	_		CLIAD/7)	Foreig	n kov roforonco	s Drainat/DraiN	~ \
	<u>ProjN</u>		CHAR(7)	roreig	ii key reference	s Project(ProjNo	U)
	<u>Empl</u>	<u>Vo</u>	CHAR(3)				

1	Employee		Project			AssignedTo	
	EmpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	Web Service	110	COMP354	103
	104	Clark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	– (106)
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
Relations	Presen	nt				COMP278	110
Fm	ployee					COMP354	110
• •		CHAD(2)			COMP354	112	
	•		CHAR(3) VARCHAR(12))		COMP453	112

Project

ProjNoCHAR(7)

ProjDesc VARCHAR(20)

Supervisor CHAR(3) Foreign key references Employee(EmpNo)

AssignedTo

ProjNoCHAR(7) Foreign key references Project(ProjNo)

EmpNo CHAR(3)

	Employee		Project			AssignedTo	
	EmpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	Web Service	110	COMP354	103
	104	Clark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	– (106)
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
Relation	s Preser	nt				COMP278	110
Fm	nployee					COMP354	110
2	• •	No.	CH V D (2)			COMP354	112
	Empl		CHAR(3)			COMP453	112
	Empl	Name	VARCHAR(12)				
Dw	-: -						
Pro	oject						
	ProjN	loCHAR(7)					
	ProjD)esc	VARCHAR(20)				
	•	rvisor	CHAR(3)	Foreig	n key reference	s Employee(Em	nNo)
	Supe	1 11301		1010161	They reference	5 Employee(Em	prio
As	signedTo	0					
	ProjN		CHAR(7)	Foreigi	n key reference	s Project(ProjN	o)
			,	O	•	, ,	,

Foreign key references Employee(EmpNo)

CHAR(3)

EmpNo

	Employee		Project			AssignedTo	
	EmpNo	EmpName	ProjNo	ProjDesc	Supervisor	ProjNo	EmpNo
	101	Jones	COMP231	Mobile App	107	COMP453	101
	103	Smith	COMP278	Web Service	110	COMP354	103
	104	Clark	COMP353	Database	104	COMP353	104
	106	Byron	COMP354	OS	110	COMP453	104
	107	Evans	COMP453	Database	101	COMP231	106
	110	Drew				COMP278	106
	112	Smith				COMP353	106
						COMP354	106
						COMP231	107
						COMP353	107
Relation	is Preser	nt				COMP278	110
Employee						COMP354	110
			CHAR(3)			COMP354	112
	<u>EmpNo</u>		` '			COMP453	112
	Empl	Name	VARCHAR(12)				
Pro	oject						
	ProjN	lo.	CHAR(7)				
			• •				
	ProjD		VARCHAR(20)				
	Supe	rvisor	CHAR(3)	Foreig	n key reference	s Employee(Em	pNo)
Δς	signedTo	n					
Α3	•		CLIAD/7)	Га на : а	. l.aa.faa.a	- Duciost/DuciN	-1
	<u>ProjN</u>		CHAR(7)	_	<u>-</u>	s Project(ProjN	-
	Empl	<u>Vo</u>	CHAR(3)	Foreig	n key reference	s Employee(Em	pNo)

Relations Present

Salesperson

Name VARCHAR20)

Age INT

Salary INT

Customer

Name VARCHAR(20)

City VARCHAR(15)

Order

<u>Number</u> INT

Salesperson VARCHAR(20)

Customer VARCHAR(20)

Salesperson				Customer	
Name	Age	Salary		Name	City
Abel	63	120000		Abernathy	Miami
Baker	38	42000		Broadway	Charlotte
Jones	22	36000		Office Pro	Charleston
Murphy	42	50000		Amalgamated	Charlotte
Smith	59	118000			
Abernathy	22	36000			
Order					
Number	Salesperson	Customer	Amount		
100	Abernathy	Abernathy	560		
200	Jones	Abernathy	2500		
300	Abel	Broadway	480		
400	Abel	Office Pro	2500		
500	Murphy	Amalgamated	6000		
600	Jones	Abernathy	7000		
700	Jones	Abernathy	2500		

Relations Present

Salesperson

Name VARCHAR20)

Age INT

Salary INT

Customer

Name VARCHAR(20)

City VARCHAR(15)

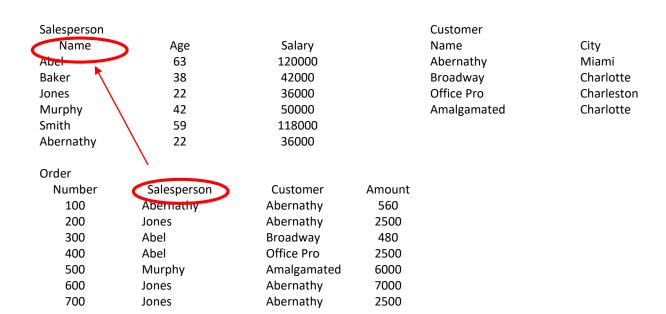
Order

<u>Number</u> INT

Salesperson VARCHAR(20)

Customer VARCHAR(20)

Salesperson				Customer	
Name	Age	Salary		Name	City
Abel	63	120000		Abernathy	Miami
Baker	38	42000		Broadway	Charlotte
Jones	22	36000		Office Pro	Charleston
Murphy	42	50000		Amalgamated	Charlotte
Smith	59	118000			
Abernathy	22	36000			
	\				
Order					
Number	Salesperson	Customer	Amount		
100	Abernathy	Abernathy	560		
200	Jones	Abernathy	2500		
300	Abel	Broadway	480		
400	Abel	Office Pro	2500		
500	Murphy	Amalgamated	6000		
600	Jones	Abernathy	7000		
700	Jones	Abernathy	2500		



Relations Present Salesperson

Name VARCHAR20)

Age INT Salary INT

Customer

Name VARCHAR(20)
City VARCHAR(15)

Order

<u>Number</u> INT

Salesperson VARCHAR(20)

Customer VARCHAR(20)

Amount INT

Foreign key references Salesperson(Name)

Salesperson Name	Age	Salary		Customer Name
Abel	63	120000		Abernathy
Baker	38	42000		Broadway
Jones	22	36000		Office Pro
Murphy	42	50000		Amalgama
Smith	59	118000		
Abernathy	22	36000		
Order				
Number	Salesperson	Customer	Amount	
100	Abernathy	Abernathy	560	
200	Jones	Abernathy	2500	
300	Abel	Broadway	480	
400	Abel	Office Pro	2500	
500	Murphy	Amalgamated	6000	
600	Jones	Abernathy	7000	
700	Jones	Abernathy	2500	

City Miami Charlotte Charleston Charlotte

Order

Relations Present

Salesperson

Customer

<u>Name</u>

Salary

Name City

Age

<u>Number</u> INT

Salesperson VARCHAR(20) Foreign key references Salesperson(Name)

VARCHAR20)

VARCHAR(20)

VARCHAR(15)

INT

INT

Customer VARCHAR(20)

Name Abel Baker Jones Murphy Smith Abernathy Order	Age 63 38 22 42 59	Salary 120000 42000 36000 50000 118000 36000		Name Abernathy Broadway Office Pro Amalgamated	City Miami Charlotte Charlestor Charlotte
Baker Jones Murphy Smith Abernathy Order	38 22 42 59	42000 36000 50000 118000	<u> </u>	Broadway Office Pro	Charlotte Charleston
Jones Murphy Smith Abernathy Order	22 42 59	36000 50000 118000		Office Pro	Charleston
Murphy Smith Abernathy Order	42 59	50000 118000			
Smith Abernathy Order	59	118000		Amaigamated	Charlotte
Abernathy Order					
Order	22	36000			
		/	,		
		/			
	alesperson	Customer	Amount		
	pernathy	Abernathy	560		
	nes	Abernathy	2500		
300 Al	pel	Broadway	480		
400 Ab	oel	Office Pro	2500		
500 M	urphy	Amalgamated	6000		
600 Jo	nes	Abernathy	7000		
700 Jo	nes	Abernathy	2500		
		•			

Customer

Relations Present

Salesperson

<u>Name</u>

Salary

Age

Name VARCHAR(20)

VARCHAR20)

INT

INT

City VARCHAR(15)

Order

<u>Number</u> INT

Salesperson VARCHAR(20) Foreign key references Salesperson(Name)

Customer VARCHAR(20)

Salesperson				Customer	
Name	Age	Salary		Name	City
Abel	63	120000	7	Abernathy	Miami
Baker	38	42000		Broadway	Charlotte
Jones	22	36000		Office Pro	Charleston
Murphy	42	50000		Amalgamated	Charlotte
Smith	59	118000			
Abernathy	22	36000			
			/		
Order					
Number	Salesperson	Customer	Amount		
100	Abernathy	Abernathy	560		
200	Jones	Abernathy	2500		
300	Abel	Broadway	480		
400	Abel	Office Pro	2500		
500	Murphy	Amalgamated	6000		
600	Jones	Abernathy	7000		
700	Jones	Abernathy	2500		

Salesperson

Name VARCHAR20)

Age INT Salary INT

Customer

Name VARCHAR(20)
City VARCHAR(15)

Order

<u>Number</u> INT

Salesperson VARCHAR(20) Foreign key references Salesperson(Name)
Customer VARCHAR(20) Foreign key references Customer(Name)

	Salesperson				Customer			
	Name	Age	Salary		Name			
	Abel	63	120000		Abernathy			
	Baker	38	42000		Broadway			
	Jones	22	36000		Office Pro			
	Murphy	42	50000		Amalgamated			
	Smith	59	118000					
	Abernathy	22	36000					
	Order							
	Number	Salesperson	Customer	Amount				
	100	Abernathy	Abernathy	560				
	200	Jones	Abernathy	2500				
	300	Abel	Broadway	480				
	400	Abel	Office Pro	2500				
	500	Murphy	Amalgamated	6000				
	600	Jones	Abernathy	7000				
	700	Jones	Abernathy	2500				
			·					
	•							
Foreign ke	ey reterence	s Salesperson(Name)					
Foreign key references Customer(Name)								
i oreign key references customer(name)								

Relations Present

Salesperson

Customer

Order

<u>Name</u>

Salary

Name City

<u>Number</u>

Salesperson

Customer

Amount

Age

VARCHAR20)

VARCHAR(20)

VARCHAR(15)

VARCHAR(20)

VARCHAR(20)

INT

INT

INT

INT

City

Miami Charlotte

Charleston

Charlotte