



Universidad Nacional Autónoma de México

Nombre: Vázquez Pérez Karla

Bases de datos

Tarea 20

Grupo 1

Profesor: ING. Fernando Arreola Franco

2022-2

A	B	...	C	D	E	F	G
staffNo	name		position	salary	branchNo	branchAddress	telNo
S1500	Tom Daniels		Manager	46000	B001	8 Jefferson Way, Portland, OR 97201	503-555-3618
S0003	Sally Adams		Assistant	30000	B001	8 Jefferson Way, Portland, OR 97201	503-555-3618
S0010	Mary Martinez		Manager	50000	B002	City Center Plaza, Seattle, WA 98122	206-555-6756
S3250	Robert Chin		Supervisor	32000	B002	City Center Plaza, Seattle, WA 98122	206-555-6756
S2250	Sally Stern		Manager	48000	B004	16 – 14th Avenue, Seattle, WA 98128	206-555-3131
S0415	Art Peters		Manager	41000	B003	14 – 8th Avenue, New York, NY 10012	212-371-3000

Cuando PK: {A}

Cumple con 1FN?

- ¿Tiene atributos multivaluados? No
- ¿Tiene atributos de repetición? No

Cumple con 1FN

¿Cumple con 2FN?

- ¿Tiene dependencias funcionales parciales? No porque tiene una llave primaria simple

Cumple con 2FN

3FN:

A -> {B,C,D,E,F,G}
E -> {F,G}

¿Cumple con 3FN?

- ¿Hay dependencias transitivas? Sí

No cumple con 3FN

Aplicamos 3FN, por lo que el resultado final es:

PK				FK
staffNo	name	position	salary	branchNo
S1500	Tom Daniels	Manager	46000	B001
S0003	Sally Adams	Assistant	30000	B001
S0010	Mary Martinez	Manager	50000	B002

S3250	Robert Chin	Supervisor	32000	B002
S2250	Sally Stern	Manager	48000	B004
S0415	Art Peters	Manager	41000	B003

PK		
branchNo	branchAddress	telNo
B001	8 Jefferson Way, Portland, OR 97201	503-555-3618
B002	City Center Plaza, Seattle, WA 98122	206-555-6756
B004	16 - 14th Avenue, Seattle, WA 98128	206-555-3131
B003	14 - 8th Avenue, New York, NY 10012	212-371-3000

Cuando PK: {A,E}:

A	B	...	C	D	E	F	G
staffNo	name		position	salary	branchNo	branchAddress	telNo
S1500	Tom Daniels		Manager	46000	B001	8 Jefferson Way, Portland, OR 97201	503-555-3618
S0003	Sally Adams		Assistant	30000	B001	8 Jefferson Way, Portland, OR 97201	503-555-3618
S0010	Mary Martinez		Manager	50000	B002	City Center Plaza, Seattle, WA 98122	206-555-6756
S3250	Robert Chin		Supervisor	32000	B002	City Center Plaza, Seattle, WA 98122	206-555-6756
S2250	Sally Stern		Manager	48000	B004	16 - 14th Avenue, Seattle, WA 98128	206-555-3131
S0415	Art Peters		Manager	41000	B003	14 - 8th Avenue, New York, NY 10012	212-371-3000

¿Cumple con 1FN?

- ¿Tiene atributos multivaluados? No
- ¿Tiene atributos de repetición? No

Cumple con 1FN

A,E -> {B,C,D,F,G}

A -> {B,C,D}

B -> {F,G}

A,E -> {} *PARA QUE HAYA CRUCE DE TABLAS

¿Cumple con 2FN?

- ¿Tiene dependencias funcionales parciales? Sí

No cumple con 2FN

staffNo	name	position	salary
S1500	Tom Daniels	Manager	46000
S0003	Sally Adams	Assistant	30000
S0010	Mary Martinez	Manager	50000
S3250	Robert Chin	Supervisor	32000
S2250	Sally Stern	Manager	48000
S0415	Art Peters	Manager	41000

branchNo	branchAddress	telNo
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staffNo	branchNo
S1500	B001
S0003	B001
S0010	B002
S3250	B002
S2250	B004

S0415	B003
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3FN:

¿Cumple con 3FN?

- ¿Hay dependencias transitivas? No

Por lo tanto, cumple con 3FN

El resultado final es:

staffNo	name	position	salary
S1500	Tom Daniels	Manager	46000
S0003	Sally Adams	Assistant	30000
S0010	Mary Martinez	Manager	50000
S3250	Robert Chin	Supervisor	32000
S2250	Sally Stern	Manager	48000
S0415	Art Peters	Manager	41000

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staffNo	branchNo
S1500	B001
S0003	B001

S0010	B002
S3250	B002
S2250	B004
S0415	B003