Universidad Nacional Autónoma de México

Facultad de Ingeniería

Bases de Datos

Grupo: 01

Tarea 20. Normalización 3FN

Alumno: Rodríguez Larios Alejandro

Profesor: Ing. Fernando Arreola Franco

Semestre 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

Caso 1: con PK: {A} -> {B, C, D, E, F, G}

¿Cumple con 1FN?

R: SI, no hay atributos multivaluados ni grupos de repetición.

¿Cumple con 2FN?

R: SI, no hay dependencias funcionales y la PK es simple.

¿Cumple con 3FN?

R: NO, hay relaciones transitivas.

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

E -> {F, G}

Entonces comenzamos a dividir las tablas para que se cumpla con la 3FN.

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

BranchNo	branchAddress	telNo
B001	8 Jefferson Way, Portalnd, OR 97201	503-555-3618
B001	8 Jefferson Way, Portalnd, OR 97201	503-555-3618
B002	City Center Plaza, Seattle, WA 98122	206-555-6756
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

A	B	C	D	E	F	G

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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

Caso 2: PK: {A, E} -> {B, C, D, E, F, G}

¿Cumple con 1FN?

R: SI, no hay atributos multivaluados y tampoco grupos de repetición.

¿Cumple con 2FN?

R: NO, hay dependencias funcionales parciales.

A -> {B, C, D}

E -> {F, G}

{A, E} -> {}

PK

FK   FK

staffNo	BranchNo
S1500	B001
S0003	B001
S0010	B002
S3250	B002
S2250	B004
S0415	B003

PK

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

PK

BranchNo	branchAddress	telNo
B001	8 Jefferson Way, Portalnd, OR 97201	503-555-3618
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B003	14-8th Avenue, New York, NY 10012	212-371-3000

¿cumple con 3FN?

R: SI, no hay dependencias transitivas.