

Normalization

Tuesday, December 10, 2024 10:58 PM

Denormalized Table

adopter_id	adopter_name	adopter_phone	adopter_email	adopter_address	adopter_status	child_id	child_name	gender	admission_date	birth_date	record_id	record_date	diagnosis	treatment	guardian_id	guardian_name	guardian_phone	guardian_email	guardian_address	guardian_relationship	room_id	room_number	wing	floor	capacity	occupancy	staff_id	staff_name	position	staff_email	staff_phone	hire_date	donor_id	donor_name	donor_phone
1	Kholod Fatdy	1234567890	khlool@example.com	123 Cairo	Active	1	Habiba	F	2024-01-01	2020-06-15	1	2024-01-10	Flu	Medication	1	Heba Ahmed	9876543210	heba@example.com	456 Cairo	Mother	1	1	North	1	4	3	1	Reham	Nurse	reham@example.com	1122223334	2020-02-01	1	Moh	1122334455
2	Rosa Moh	2233445566	roaa@example.com	789 Alex	Inactive	2	Maryam	F	2023-12-01	2018-03-22	2	2024-02-15	Allergy	Treatment	2	Assem Fatdy	6677889900	asem@example.com	987 Alex	Father	2	2	South	2	6	2	2	Yousef	Doctor	yousef@example.com	4445556667	2021-03-15	2	Ali	7788990011
3	Ahmed Salem	3344556677	ahmed@example.com	321 Giza	Active	3	Salma	F	2024-03-01	2021-08-05	3	2024-03-20	Cold	Rest	3	Mona Khalil	9998887777	mona@example.com	654 Giza	Sister	3	3	West	3	5	4	3	Omar	Manager	omar@example.com	5556667778	2019-08-12	3	Lina	8889990001

1NF

adopter Table

adopter_id	name	phone_number	email	address	status
1	Kholod Fatdy	1234567890	khlool@example.com	123 Cairo	Active
2	Rosa Moh	2233445566	roaa@example.com	789 Alex	Inactive
3	Ahmed Salem	3344556677	ahmed@example.com	321 Giza	Active

child Table

child_id	name	gender	admission_date	birth_date
1	Habiba	F	2024-01-01	2020-06-15
2	Maryam	F	2023-12-01	2018-03-22
3	Salma	F	2024-03-01	2021-08-05

medical\_record Table

record_id	record_date	diagnosis	treatment
1	2024-01-10	Flu	Medication
2	2024-02-15	Allergy	Treatment
3	2024-03-20	Cold	Rest

guardian Table

guardian_id	name	phone_number	email	address	relationship
1	Heba Ahmed	9876543210	heba@example.com	456 Cairo	Mother
2	Assem Fatdy	6677889900	asem@example.com	987 Alex	Father
3	Mona Khalil	9998887777	mona@example.com	654 Giza	Sister

room Table

room_id	room_number	wing	floor	capacity	occupancy
1	1	North	1	4	3
2	2	South	2	6	2
3	3	West	3	5	4

staff Table

staff_id	name	position	email	phone_number	hire_date
1	Reham	Nurse	reham@example.com	1122223334	2020-02-01
2	Yousef	Doctor	yousef@example.com	4445556667	2021-03-15
3	Omar	Manager	omar@example.com	5556667778	2019-08-12

donor Table

donor_id	name	phone_number	email
1	Moh	1122334455	moh@example.com
2	Ali	7788990011	ali@example.com
3	Lina	8889990001	lina@example.com

2NF

adopter-child Table

adopter_id	child_id
1	1
2	2
3	3

child-medical\_record Table

child_id	record_id	admission_date	birth_date
1	1	2024-01-01	2020-06-15
2	2	2023-12-01	2018-03-22
3	3	2024-03-01	2021-08-05

child\_guardian Table

child_id	guardian_id
1	1
2	2
3	3

child\_room Table

child_id	room_id
1	1
2	2
3	3

donation Table

donation_id	staff_id	donation_date	donation_amount
1	1	2023-05-15	1000
2	2	2023-06-20	500
3	3	2023-08-12	1500

donor\_donation Table

donor_id	donation_id
1	1
2	2
3	3
4	4
5	5

3NF

The tables are now in 3NF, with all dependencies properly resolved.

donor_email	donation_id	staff_id	donation_date	donation_amount
mo2@example.com	1	1	2023-05-15	1000
ali@example.com	2	2	2023-06-20	500
ira@example.com	3	3	2023-08-12	1500