

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	Khlood Fatthy	1234567890	khlood@example.com	123 Cairo	Pending	101	Habiba	F	2024-01-01	2020-06-15	201	2024-01-10	Flu	Medication	301	Heba Ahmed	9876543210	heba@example.com	456 Cairo	Mother	401	101	North	1	4	3	501	Reham	Nurse	reham@example.com	1112223334	2020-02-01	801	Moh	1122334455
2	Rousi Moh	223445566	rousi@example.com	789 Alex	Accepted	102	Maryam	F	2023-12-01	2018-03-22	202	2024-02-15	Allergy	Treatment	302	Asm Fathy	6677889900	asm@example.com	987 Alex	Father	402	102	South	2	6	2	502	Yousif	Doctor	yousif@example.com	4445556667	2022-05-15	802	Ali	7788990011
3	Ahmed Salem	3344556677	ahmed@example.com	321 Giza	Rejected	103	Salma	F	2024-03-01	2021-08-05	203	2024-03-20	Cold	Rest	303	Mona Khalil	998887777	mona@example.com	654 Giza	Sister	403	103	West	3	5	4	503	Omar	Manager	omar@example.com	5556667778	2019-06-12	903	Lina	8889990003

1NF

adopter Table

adopter_id	name	phone_number	email	address	status
1	Khlood Fatthy	1234567890	khlood@example.com	123 Cairo	Pending
2	Rousi Moh	223445566	rousi@example.com	789 Alex	Accepted
3	Ahmed Salem	3344556677	ahmed@example.com	321 Giza	Rejected

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	Asm Fathy	6677889900	asm@example.com	987 Alex	Father
3	Mona Khalil	998887777	mona@example.com	654 Giza	Sister

room Table

room_id	room_number	wing	floor	capacity	occupancy
1	101	North	1	4	3
2	102	South	2	6	2
3	103	West	3	5	4

staff Table

staff_id	name	position	email	phone_number	hire_date
1	Reham	Nurse	reham@example.com	1112223334	2020-02-01
2	Yousif	Doctor	yousif@example.com	4445556667	2021-05-15
3	Omar	Manager	omar@example.com	5556667778	2019-06-12

donor Table

donor_id	name	phone_number	email
1	Moh	1122334455	moh@example.com
2	Ali	7788990011	ali@example.com
3	Lina	8889990003	lina@example.com

2NF

child\_guardian Table

child_id	guardian_id
1	1
2	2
3	3

donor\_staff Table

donor_id	staff_id	donation_date	donation_amount
1	1	2023-05-15	1000
2	2	2023-06-20	100
3	3	2023-08-12	1500

medical\_record Table

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

child Table

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

and same other tables

3NF

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

donor_email
mo7@example.com
an@example.com
tra@example.com