

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 Fatmy	1234567890	kholod@example.com	123 Cairo	Active	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	112223334	2020-02-01	601	Moh	1122334455
2	Rosa Moh	2343456789	rosa@example.com	789 Alex	Inactive	102	Maryam	F	2023-12-01	2018-03-22	202	2024-02-15	Allergy	Treatment	302	Assem Fatmy	6677889900	assem@example.com	987 Alex	Father	402	102	South	2	6	2	502	Yousef	Doctor	yousef@example.com	4445556667	2021-03-15	602	Ali	7788990011
3	Ahmed Salem	3344556677	ahmed@example.com	321 Giza	Active	103	Salma	F	2024-03-01	2021-08-05	203	2024-03-20	Cold	Rest	303	Mona Khalil	999887777	mona@example.com	654 Giza	Sister	403	103	West	3	5	4	503	Omar	Manager	omar@example.com	5556667778	2019-08-12	603	Lina	8889990001

1NF

adopter Table

adopter_id	name	phone_number	email	address	status
1	Kholod Fatmy	1234567890	kholod@example.com	123 Cairo	Active
2	Rosa Moh	2323445566	rosa@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
101	Habiba	F	2024-01-01	2020-06-15
102	Maryam	F	2023-12-01	2018-03-22
103	Salma	F	2024-03-01	2021-08-05

medical_record Table

record_id	record_date	diagnosis	treatment
201	2024-01-10	Flu	Medication
202	2024-02-15	Allergy	Treatment
203	2024-03-20	Cold	Rest

guardian Table

guardian_id	name	phone_number	email	address	relationship
301	Heba Ahmed	9876543210	heba@example.com	456 Cairo	Mother
302	Assem Fatmy	6677889900	assem@example.com	987 Alex	Father
303	Mona Khalil	999887777	mona@example.com	654 Giza	Sister

room Table

room_id	room_number	wing	floor	capacity	occupancy
401	101	North	1	4	3
402	102	South	2	6	2
403	103	West	3	5	4

staff Table

staff_id	name	position	email	phone_number	hire_date
501	Reham	Nurse	reham@example.com	112223334	2020-02-01
502	Yousef	Doctor	yousef@example.com	444555667	2021-03-15
503	Omar	Manager	omar@example.com	555666778	2019-08-12

donor Table

donor_id	name	phone_number	email
601	Moh	1122334455	moh@example.com
602	Ali	7788990011	ali@example.com
603	Lina	8889990001	lina@example.com

2NF

adopter-child Table

adopter_id	child_id
1	101
2	102
3	103

child-medical_record Table

child_id	record_id	admission_date	birth_date
101	201	2024-01-01	2020-06-15
102	202	2023-12-01	2018-03-22
103	203	2024-03-01	2021-08-05

medical_record Table

record_id	record_date	diagnosis	treatment
201	2024-01-10	Flu	Medication
202	2024-02-15	Allergy	Treatment
203	2024-03-20	Cold	Rest

3NF

medical_record-diagnosis Table

record_id	diagnosis	treatment
201	Flu	Medication
202	Allergy	Treatment
203	Cold	Rest

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

donor_email
mo2@example.com
ali@example.com
ira@example.com