

Relational Schema:

Entities:

1. Hospital (Name, Hospital Id, Location)
2. Hospitalisation (Hospitalisation id, Curing Status, Resources Used)
3. Testing Lab (Name, Lab ID, Location, Number of test Samples, Type of tests)
4. Vaccination Centre (Name, Location, Types of vaccines present in the center, Center ID)
5. Government Agencies (Parent Ministry, Name, Agency ID)
6. Citizens (Gender, Citizen ID, Name, Address, Age)
7. Healthcare Professionals (Gender, Name, Employee ID, Age, Associated health center, Profession Type)
8. Patient(Name, Age, Covid Status, Vaccine Status, Patient ID)

We are using the following abbreviations:

Hospital - H,

Hospitalization - Hn

Testing Lab - TL

Vaccination Centre - VC

Government Agencies - GA

Citizens - C

Healthcare Professionals - HP

Patient - P

Relations:

(E1-E2_ refers to the relation (relation name) between E1 and E2)

1. GA-Hn_Access Data (Name, Hospitalisation id)
2. GA-TL_Access Data (Name, Lab ID)
3. GA-VC_Access Data (Name, Center ID, Testing Status, Number of Vaccines present in Center)
4. GA-C_Access Data (Name, Age, Gender, Citizen ID)
5. GA-HP_Access Data (Hospitalization ID)
6. Hn-P_Access Data(Patient Id , Symptom)
7. Hn-C_Accessing Hospitalization Data (Hospitalization id, Citizen ID)
8. Hn-HP_Access patient and other data (Hospitalization id)
9. Hn-C-TL_Testing and Hospitalization (Hospitalization id, Lab Id, Citizen ID, self_reporting status, Hospitalization Status)
10. H-Hn_For Admission (Hospitalization id, Hospital ID)
11. H-HP_works in (Hospital ID, Employee ID)
12. TL-C_Accessing Testing Data (Citizen ID, Lab ID)
13. TL-HP_works in (Employee ID, Lab ID)
14. VC-C_For Vaccination (Citizen ID, Center ID)
15. VC-HP_works in (Lab ID, Employee id)
16. P-HP_Admitted(Patient ID , Hospital ID)
17. P-VC_Access Data(Patient ID , Center ID)