DB lab 05

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Section: T2

Scenario 1

1) Convert the relation to a valid 1NF form by identifying all primary keys.

   Publications (Publications Pub ID (PK), Research paper title, Pub date, Journal, Category, **Subject area (PK),** No of pages, **Faculty_ID(PK),** Faculty name, **Supervisor_ID(PK)**, Supervisor name)

2) Functional dependencies:

   Pub ID: research paper title, pub date, journal, category, no of pages

   Faculty_ID: faculty name

   Supervisor_ID: supervisor name

   All are partial dependencies

3) 2NF form:

   Publications (pub_ID(PK), research paper Title, Date, Journal, Category, no of Pages)
   Subject Area (Pub_ID(FK), Subject_Name (PK))
   Faculty (faculty_Id, faculty_name)
   Supervisor (supervisor_Id, supervisor_name)
   Publication_faculty_supervisor (Pub_ID(FK), faculty_ID(FK), supervisor_ID(FK))

4) Transitive dependencies:
   Journal -> Category

5) 3NF form:

Publications (pub_ID(PK), research paper title, date, journal (FK), category, no of pages)

Journal (journal_name (PK), category)

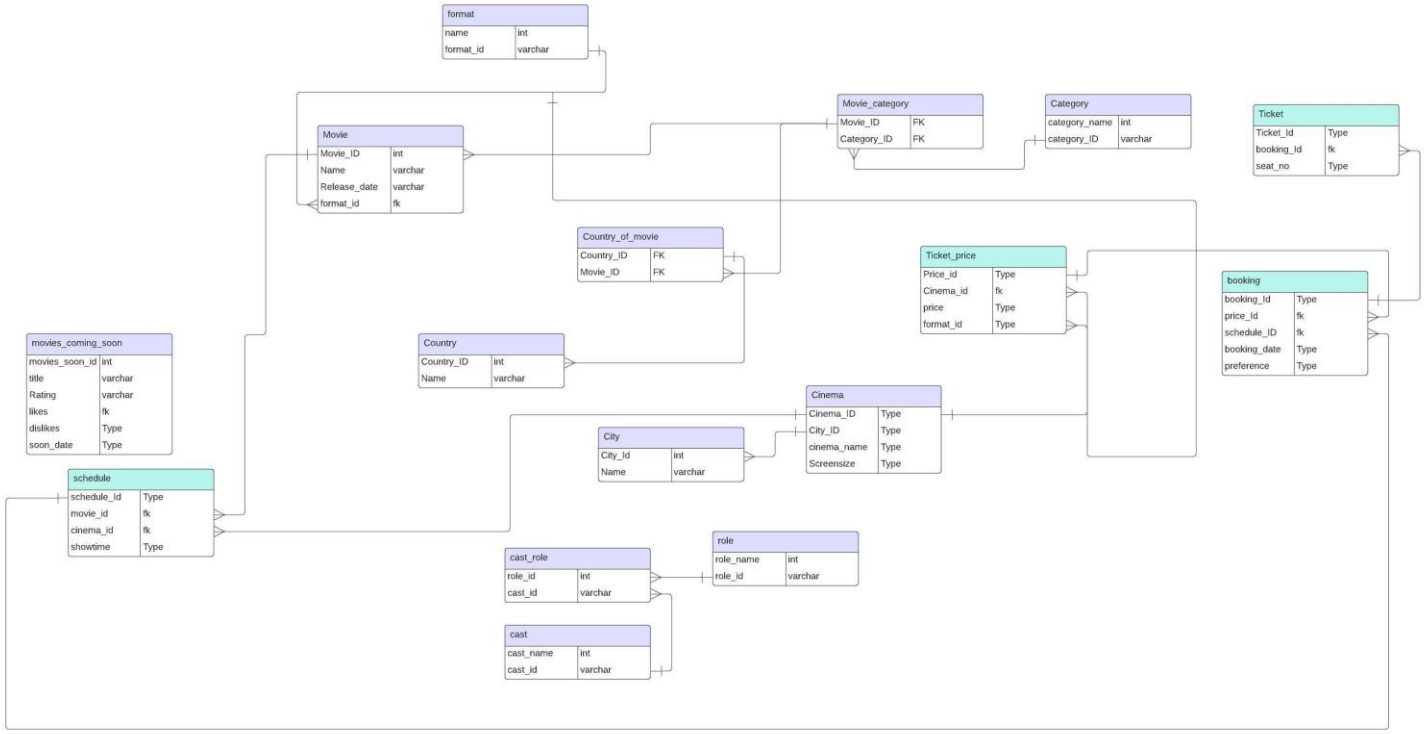
Subject Area (pub_ID(FK), subject_name (PK))

Faculty (faculty_Id, faculty_name)

Supervisor (supervisor_Id, supervisor_name)

Publication_faculty_supervisor (pub_ID(FK), supervisor_ID(FK), faculty_ID(FK))

Scenario2:


format
name int
format_id varchar
Movie
Movie_ID int
Name varchar
Release_date varchar
format_id fk
Movie_category
Movie_ID FK
Category_ID FK
Category
category_name int
category_ID varchar
Ticket
Ticket_Id Type
booking_Id fk
seat_no Type
Country_of_movie
Country_ID FK
Movie_ID FK
Ticket_price
Price_id Type
Cinema_id fk
price Type
format_id Type
booking
booking_Id Type
price_Id fk
schedule_ID fk
booking_date Type
preference Type
movies_coming_soon
movies_soon_id int
title varchar
Rating varchar
likes fk
dislikes Type
soon_date Type
Country
Country_ID int
Name varchar
Cinema
Cinema_ID Type
City_ID Type
cinema_name Type
Screensize Type
City
City_Id int
Name varchar
schedule
schedule_Id Type
movie_id fk
cinema_id fk
showtime Type
role
role_name int
role_id varchar
cast_role
role_id int
cast_id varchar
cast
cast_name int
cast_id varchar