BookMyShow Database Design

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Entities with Attributes

1. Theatre

Attributes:
- theatre_id (PK)
- name
- location

Sample Data:

theatre_id	name	location
1	PVR Cinemas	Bangalore
2	INOX	Mumbai
3	Cinepolis	Delhi

2. Screen

Attributes:
- screen_id (PK)
- theatre_id (FK)
- screen_name

Sample Data:

screen_id	theatre_id	screen_name
1	1	Screen 1
2	1	Screen 2
3	2	Screen 1

4	3	Screen 1

3. Movie

Attributes:
- movie_id (PK)
- title
- duration_minutes
- genre
- language

Sample Data:

movie_id	title	duration_minutes	genre	language
1	Inception	148	Sci-Fi	English
2	KGF Chapter 2	168	Action	Kannada
3	Oppenheimer	180	Drama	English
4	3 Idiots	170	Comedy	Hindi

4. ShowDetails

Attributes:
- show_id (PK)
- screen_id (FK)
- movie_id (FK)
- show_date (DATE)
- show_time (TIME)

Sample Data:

show_id	screen_id	movie_id	show_date	show_time
1	1	1	2025-08-24	10:00:00
2	1	2	2025-08-24	14:00:00

3	2	3	2025-08-24	18:00:00
4	3	2	2025-08-25	12:30:00
5	4	4	2025-08-25	15:00:00

SQL Queries

P1

```sql
-- create database
drop database if exists bookmyshow;
create database bookmyshow;
use bookmyshow;
-- create tables
create table theatre (
  theatre_id int auto_increment primary key,
  name varchar(100) not null,
  location varchar(100) not null
);
create table screen (
  screen_id int auto_increment primary key,
  theatre_id int not null,
  screen_name varchar(50) not null,
  foreign key (theatre_id) references theatre(theatre_id)
);
create table movie (
  movie_id int auto_increment primary key,
  title varchar(100) not null,
  duration_minutes int not null,
  genre varchar(50),
  language varchar(50)
);
create table showdetails (
  show_id int auto_increment primary key,
  screen_id int not null,
  movie_id int not null,
  show_date date not null,
  show_time time not null,
  foreign key (screen_id) references screen(screen_id),
  foreign key (movie_id) references movie(movie_id)
);
-- insert sample data into the tables
insert into theatre (name, location) values
('pvr cinemas', 'bangalore'),
```

```
('inox', 'mumbai'),
('cinepolis', 'delhi');
select * from theatre;
insert into screen (theatre_id, screen_name) values
(1, 'screen 1'),
(1, 'screen 2'),
(2, 'screen 1'),
(3, 'screen 1');
select * from screen;
insert into movie (title, duration_minutes, genre, language) values
('inception', 148, 'sci-fi', 'english'),
('kgf chapter 2', 168, 'action', 'kannada'),
('oppenheimer', 180, 'drama', 'english'),
('3 idiots', 170, 'comedy', 'hindi');
select * from movie;
insert into showdetails (screen_id, movie_id, show_date, show_time) values
(1, 1, '2025-08-24', '10:00:00'),
(1, 2, '2025-08-24', '14:00:00'),
(2, 3, '2025-08-24', '18:00:00'),
(3, 2, '2025-08-25', '12:30:00'),
(4, 4, '2025-08-25', '15:00:00');
select * from showdetails;
```

P2

```
use bookmyshow;
select
  t.name as theatre_name,
  m.title as movie_title,
  s.screen_name,
  sh.show_date,
  sh.show_time
from showdetails sh
join screen s on sh.screen_id = s.screen_id
join theatre t on s.theatre_id = t.theatre_id
join movie m on sh.movie_id = m.movie_id
where t.name = 'pvr cinemas'
 and sh.show_date = '2025-08-24'
order by sh.show_time;
```