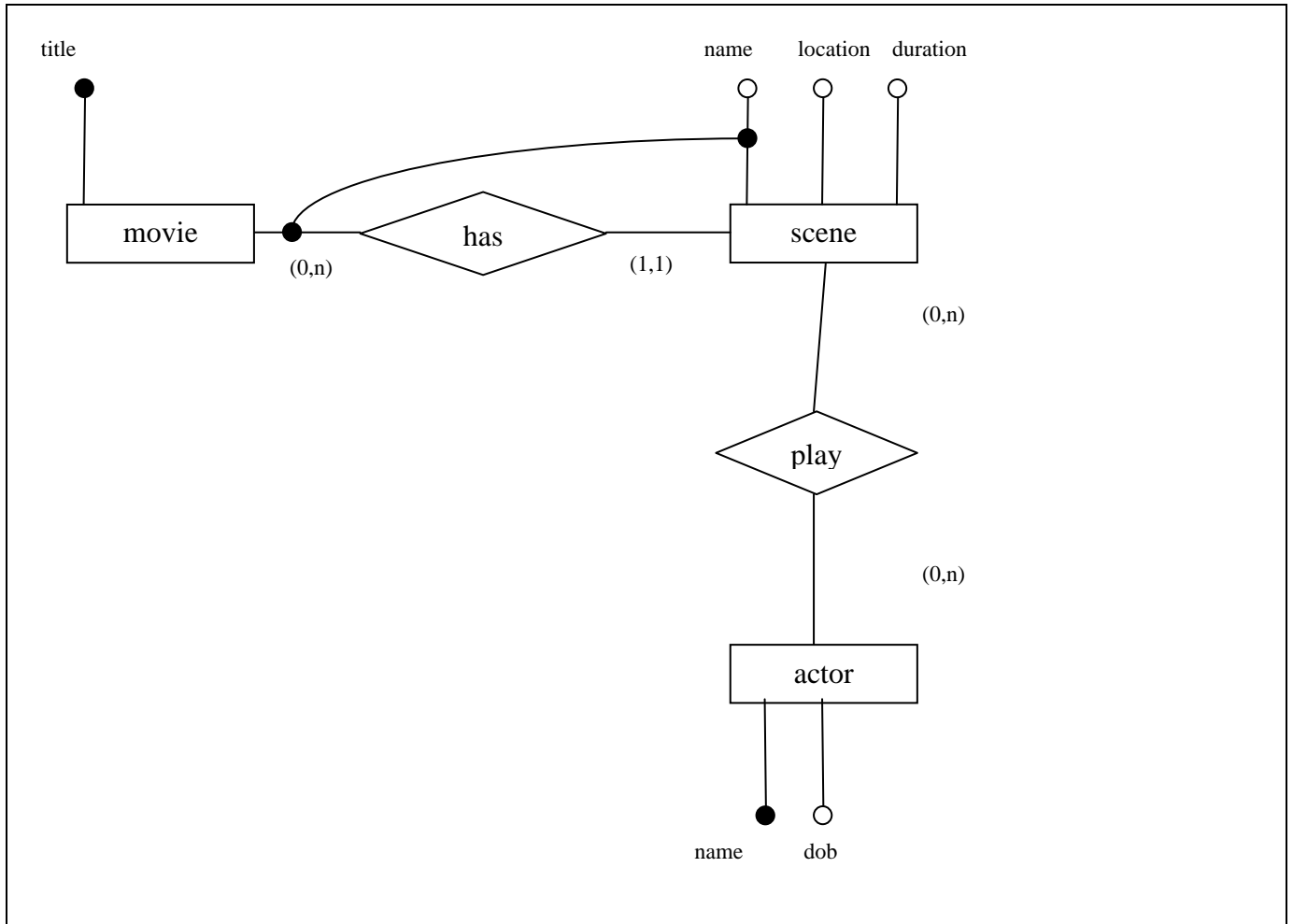Your company, Apasaja Pte Ltd, has been commissioned to design and implement a database for a movie company. The database stores information about movies. Each movie is identified by its title. A movie is a set, possibly empty, of scenes. Each scene is described by its location and its duration. Each scene has a unique name within a movie. Actors play in scenes of movies. The database records actors' name and date of birth. Actors are known by their name. The database may record information about actors not yet playing in any movie.

Question 8. Draw the corresponding entity-relationship diagram. Indicate all key and participation constraints.

Use **upper case for the SQL keywords** and **lower case for relation and attribute names**.

Question 9. Write the corresponding SQL DDL code. Use appropriate domains. Include primary and foreign keys constraints. (Do not include the cascading commands.)

```
CREATE TABLE movie(
title VARCHAR(64) PRIMARY KEY))

CREATE TABLE scene (
movie VARCHAR(64),
name VARCHAR(32),
location VARCHAR(64),
duration NUMBER,
PRIMARY KEY (movie, name),
FOREIGN KEY (movie) REFERENCES movie(title))

CREATE TABLE play (
movie VARCHAR(64),
scene VARCHAR(32),
actor VARCHAR(32),
PRIMARY KEY (movie, scene, actor),
FOREIGN KEY (actor) REFERENCES actor(name),
FOREIGN KEY (movie, scene) REFERENCES scene(movie, name))

CREATE TABLE actor(
name VARCHAR(32) PRIMARY KEY,
dob DATE)
```