**Practice Questions - SQL**

**Tables**

**Actors**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** |
| actor\_id | INT | PRIMARY KEY |
| name | VARCHAR(100) | NOT NULL |
| birth\_year | INT | CHECK (birth\_year > 1900) |

**Movies**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** |
| movie\_id | INT | PRIMARY KEY |
| title | VARCHAR(200) | UNIQUE |
| release\_year | INT |  |
| genre | VARCHAR(50) |  |

**Roles**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** |
| role\_id | INT | PRIMARY KEY |
| actor\_id | INT | FOREIGN KEY → Actors(actor\_id) |
| movie\_id | INT | FOREIGN KEY → Movies(movie\_id) |
| character\_name | VARCHAR(100) |  |

**Series**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** |
| series\_id | INT | PRIMARY KEY |
| title | VARCHAR(200) | UNIQUE |
| seasons | INT | CHECK (seasons > 0) |
| genre | VARCHAR(50) |  |

**Directors**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** |
| director\_id | INT | PRIMARY KEY |
| name | VARCHAR(100) | NOT NULL |
| birth\_year | INT |  |
| nationality | VARCHAR(50) |  |

**Practice Questions**

1. Insert these 3 actors into Actors: **Kit Harington**, **Emilia Clarke**.
2. Insert these 3 MCU movies into Movies: **Iron Man**, **The Avengers**, **Avengers: Endgame**.
3. Insert these 2 directors into Directors: **Jon Favreau** (born 1966, American) and **Joss Whedon** (born 1964, American).
4. Insert these roles into Roles:
   * Robert Downey Jr. as **Tony Stark** in *Iron Man*
   * Robert Downey Jr. as **Tony Stark** in *The Avengers*
   * Chris Evans as **Steve Rogers** in *The Avengers*
   * Chris Evans as **Steve Rogers** in *Avengers: Endgame*
5. Insert a series titled *Game of Thrones* with 8 seasons and genre *Fantasy*.
6. Insert a series titled *Breaking Bad* with 5 seasons and genre *Crime/Drama*.
7. Add a CHECK constraint so Movies.release\_year must be greater than 1900.
8. Add a budget column to the Movies table.
9. Add a rating column to the Movies table.
10. Update the genre of *Iron Man* to *Action/Adventure*.
11. Update the budget of *Avengers: Endgame* to **350 million USD**.
12. Delete the movie *Iron Man*.
13. Delete the actor *Emilia Clarke* from Actors.
14. Drop the Directors table.
15. Create a Directs table with director\_id and movie\_id as FOREIGN KEYS referencing Directors and Movies.
16. Select all movies with a budget greater than **200 million USD**.
17. Select all actors whose name contains the letter **‘C’**.
18. Select all series with more than **5 seasons**.
19. List all roles where the character name is **Tony Stark**.
20. List all movies directed by **Jon Favreau**.
21. Update the Series genre of *Breaking Bad* to *Crime/Thriller*.
22. Make the Directors.nationality column NOT NULL.
23. Add a UNIQUE constraint on Directors.name.
24. Insert an actor who appears in both *Game of Thrones* and an MCU movie: **Peter Dinklage** (*Game of Thrones* and *Avengers: Infinity War*).
25. Select all actors who have acted in both movies and series.