Movies schema

Schema

Movies(<u>mID</u>, title, director, year, length)
Artists(<u>aID</u>, aName, nationality)
Roles(<u>mID, aID, character</u>)

Roles[mID] $\subseteq$ Movies[mID]
Roles[aID] $\subseteq$ Artists[aID]

Example database

Movies:

mID	title	director	year	length
1	Shining	Kubrick	1980	146
2	Player	Altman	1992	146
3	Chinatown	Polanski	1974	131
4	Repulsion	Polanski	1965	143
5	Star Wars IV	Lucas	1977	126
6	American Graffiti	Lucas	1973	110
7	Full Metal Jacket	Kubrick	1987	156

Artists:

aID	aName	nat
1	Nicholson	American
2	Ford	American
3	Stone	British
4	Fisher	American

Roles:

mID	**aID**	**character**
1	1	Jack Torrance
3	1	Jake 'J.J.' Gittes
1	3	Delbert Grady
5	2	Han Solo
6	2	Bob Falfa
5	4	Princess Leia Organa

Questions

1. What is the cardinality of relation Movies?

2. What is the arity of relation Artists?

3. What is the key of relation Movies?

4. Change relation Artists in a way that violates its key constraint. Okay, you can unchange now. `:-)`

5. Change the database instance so that the constraint Roles[aID] $\subseteq$ Artists[aID] is violated.

6. Does any actor show up in relation Roles twice with same mID?

7. According to the schema, *can* an actor show up in relation Roles twice with same mID?

8. According to the schema, is there any limit on the number of directors a movie can have?

9. According to the schema, can exactly the same movie title be used for two different movies?