Movies schema

Schema

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

 $\begin{aligned} & \operatorname{Roles}[\operatorname{mID}] \subseteq \operatorname{Movies}[\operatorname{mID}] \\ & \operatorname{Roles}[\operatorname{aID}] \subseteq \operatorname{Artists}[\operatorname{aID}] \end{aligned}$

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 the instance of relation Artists in a way that violates its key constraint. Okay, you can unchange now. :-)
	stramt. Okay, you can unchange now)
5.	According to the schema, is there any limit on the number of directors a
	movie can have?
6.	According to the schema, can exactly the same movie title be used for two different movies?
7.	Change the instance of the database so that the constraint Roles[aID] \subseteq Artists[aID]
	is violated.
8	Does any actor show up in relation Roles twice with same mID?
Ο.	Does any actor show up in relation recess twice with same into:
9.	According to the schema, can an actor show up in relation Roles twice with
	same mID?