Spring ORM Assignment

Scenario

Create a Spring hibernate/JPA application for the following requirements

1. One actor can act in many movies
2. One movie can have many languages, and one language can have many movies
3. One movie category can have many movies and one movie can have many categories
4. Reference tables are given below.
5. You may download this database from https://dev.mysql.com/doc/index-other.html and select **sakila database** , then download as zip
6. Follow installation instruction of this database from https://dev.mysql.com/doc/sakila/en/sakila-installation.html link

actor table

actor_id	first_name	last_name	last_update
1	PENELOPE	GUINESS	2006-02-15 04:34:33
2	NICK	WAHLBERG	2006-02-15 04:34:33
3	ED	CHASE	2006-02-15 04:34:33
4	JENNIFER	DAVIS	2006-02-15 04:34:33
5	JOHNNY	LOLLOBRIGIDA	2006-02-15 04:34:33

category table

category_id	name	last_update
1	Action	2006-02-15 04:46:27
2	Animation	2006-02-15 04:46:27
3	Children	2006-02-15 04:46:27
4	Classics	2006-02-15 04:46:27
5	Comedy	2006-02-15 04:46:27
6	Documentary	2006-02-15 04:46:27
7	Drama	2006-02-15 04:46:27
8	Family	2006-02-15 04:46:27
9	Foreign	2006-02-15 04:46:27
10	Games	2006-02-15 04:46:27
11	Horror	2006-02-15 04:46:27

film table

film_id	title	description	release_year	language_id
1	ACADEMY DINOSAUR	A Epic Drama of a Feminist And a Mad Scientist who	2006	1
2	ACE GOLDFINGER	A Astounding Epistle of a Database Administrator Ar	2006	1
3	ADAPTATION HOLES	A Astounding Reflection of a Lumberjack And a Car	2006	1
4	AFFAIR PREJUDICE	A Fanciful Documentary of a Frisbee And a Lumberj	2006	1
5	AFRICAN EGG	A Fast-Paced Documentary of a Pastry Chef And a C	2006	1
6	AGENT TRUMAN	A Intrepid Panorama of a Robot And a Boy who must	2006	1
7	AIRPLANE SIERRA	A Touching Saga of a Hunter And a Butler who must	2006	1
8	AIRPORT POLLOCK	A Epic Tale of a Moose And a Girl who must Confron	2006	1
9	ALABAMA DEVIL	A Thoughtful Panorama of a Database Administrator	2006	1
10	ALADDIN CALENDAR	A Action-Packed Tale of a Man And a Lumberjack wl	2006	1
11	ALAMO VIDEOTAPE	A Boring Epistle of a Butler And a Cat who must Figh	2006	1
12	ALASKA PHANTOM	A Fanciful Saga of a Hunter And a Pastry Chef who r	2006	1

film_actor table

actor_id	film_id	last_update
1	1	2006-02-15 05:05:03
1	23	2006-02-15 05:05:03
1	25	2006-02-15 05:05:03
1	106	2006-02-15 05:05:03
1	140	2006-02-15 05:05:03
1	166	2006-02-15 05:05:03
1	277	2006-02-15 05:05:03
1	361	2006-02-15 05:05:03
1	438	2006-02-15 05:05:03
1	499	2006-02-15 05:05:03
1	506	2006-02-15 05:05:03
1	509	2006-02-15 05:05:03
1	605	2006-02-15 05:05:03
1	635	2006-02-15 05:05:03
1	749	2006-02-15 05:05:03
1	832	2006-02-15 05:05:03
1	939	2006-02-15 05:05:03
1	970	2006-02-15 05:05:03
1	980	2006-02-15 05:05:03
2	3	2006-02-15 05:05:03
2	31	2006-02-15 05:05:03
2	47	2006-02-15 05:05:03
2	105	2006-02-15 05:05:03
2	132	2006-02-15 05:05:03
2	145	2006-02-15 05:05:03
2	226	2006-02-15 05:05:03

film_category table

film_id	category_id	last_update
1	6	2006-02-15 05:07:09
2	11	2006-02-15 05:07:09
3	6	2006-02-15 05:07:09
4	11	2006-02-15 05:07:09
5	8	2006-02-15 05:07:09

language table
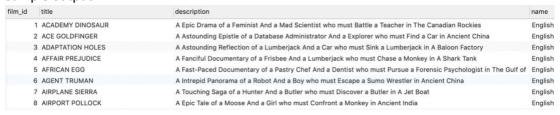
language_id	name	last_update
1	English	2006-02-15 05:02:19
2	Italian	2006-02-15 05:02:19
3	Japanese	2006-02-15 05:02:19
4	Mandarin	2006-02-15 05:02:19
5	French	2006-02-15 05:02:19
6	German	2006-02-15 05:02:19

Now create Hibernate /JPA mapping classes in Spring for the following requirements.

1. **List all movies of English language**

   Sample output

film_id	title	description	name
1	ACADEMY DINOSAUR	A Epic Drama of a Feminist And a Mad Scientist who must Battle a Teacher in The Canadian Rockies	English
2	ACE GOLDFINGER	A Astounding Epistle of a Database Administrator And a Explorer who must Find a Car in Ancient China	English
3	ADAPTATION HOLES	A Astounding Reflection of a Lumberjack And a Car who must Sink a Lumberjack in A Baloon Factory	English
4	AFFAIR PREJUDICE	A Fanciful Documentary of a Frisbee And a Lumberjack who must Chase a Monkey in A Shark Tank	English
5	AFRICAN EGG	A Fast-Paced Documentary of a Pastry Chef And a Dentist who must Pursue a Forensic Psychologist in The Gulf of	English
6	AGENT TRUMAN	A Intrepid Panorama of a Robot And a Boy who must Escape a Sumo Wrestler in Ancient China	English
7	AIRPLANE SIERRA	A Touching Saga of a Hunter And a Butler who must Discover a Butler in A Jet Boat	English
8	AIRPORT POLLOCK	A Epic Tale of a Moose And a Girl who must Confront a Monkey in Ancient India	English

2. **List all movies whose actor first_name is 'PENELOPE'**
3. **List all English language movies order by release_year**
4. **List all the movies whose movie category is Action**
5. **List all the movies released in the year 2006**

Note:

1. Save each question output in a text file. File name can be output_1.txt, output_2.txt etc
2. Right click on the project, then select new, then select folder, name the folder as outputs and place all the text files here.