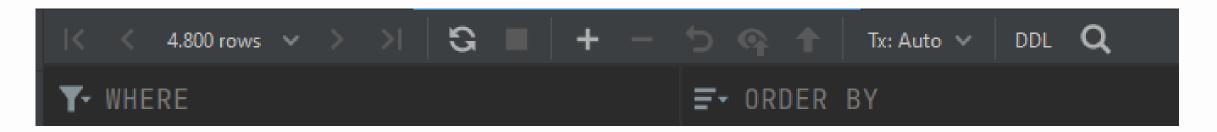
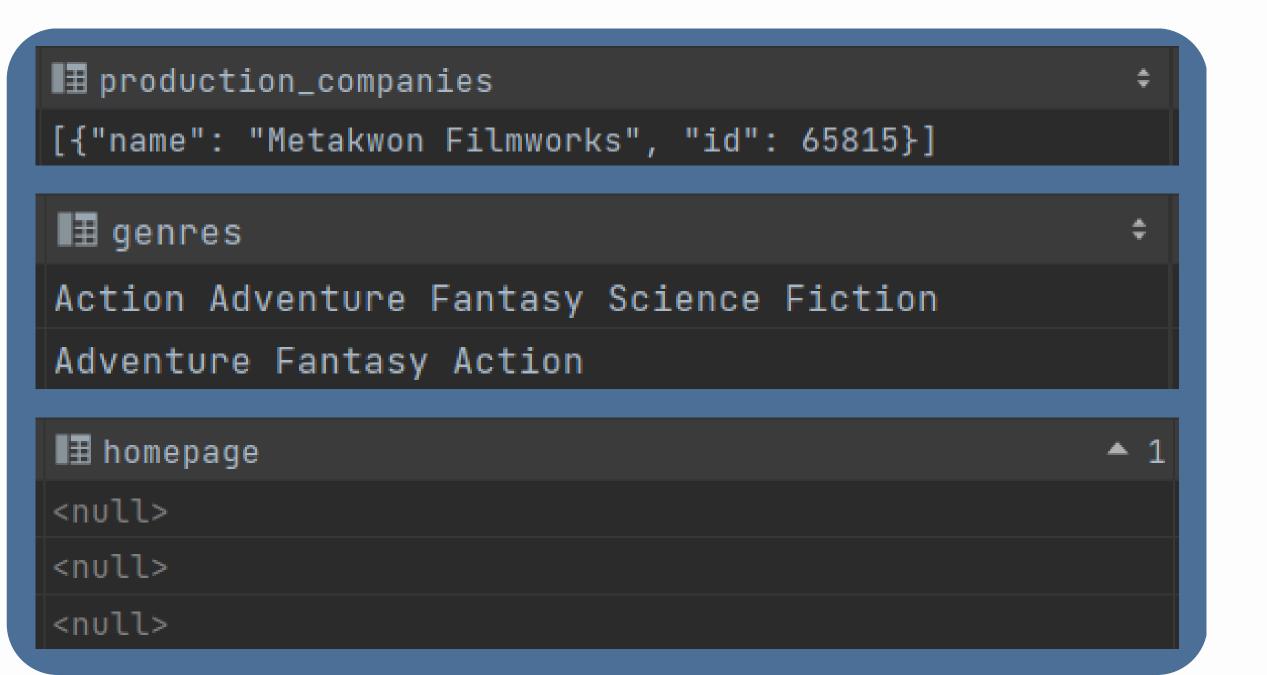


PROYECTO FINAL BASE DE DATOS

DAVID ERNESTO CARRION
ACOSTA

1. Importar el archivo



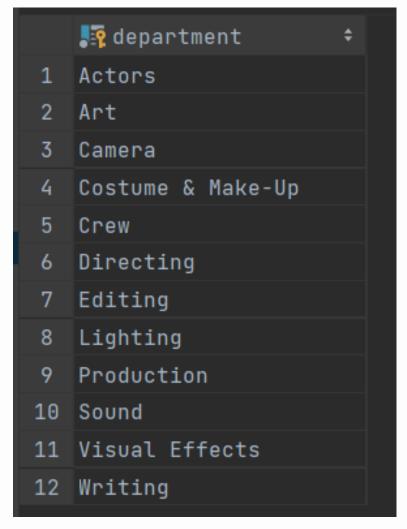


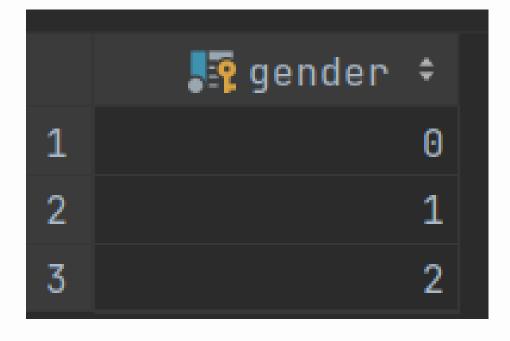
■ status Released Released

2. Normalizar Columnas con Campos repetitivos









```
DROP TABLE IF EXISTS status;
CREATE TABLE status (status VARCHAR(100)) AS SELECT DISTINCT status
FROM movie_dataset.movie_dataset;
ALTER TABLE status
ADD PRIMARY KEY (status);
-- Creación de la relación movie-status
CREATE TABLE status_movie (id INT NOT NULL,
                            status VARCHAR(100))AS SELECT id, st.status AS status
FROM movie_dataset.movie_dataset movie_status, status st
WHERE movie_status.status = st.status;
ALTER TABLE status_movie
ADD FOREIGN KEY (id) REFERENCES movie(id),
    ADD FOREIGN KEY (status) REFERENCES status(status);
```

3. Columnas con campos no atómicos



```
CREATE TABLE genres(genres VARCHAR(100)) AS
    SELECT DISTINCT (
    SUBSTRING_INDEX(SUBSTRING_INDEX(genres, ' ', 5), ' ', -1)) AS genre
FROM movie_dataset.movie_dataset;
DELETE
FROM genres
WHERE genres IS NULL;
ALTER TABLE genres
    ADD PRIMARY KEY (genres);
CREATE TABLE genres_movie AS
    SELECT tg.genres, id
    FROM genres tg, movie_dataset.movie_dataset mv
    WHERE INSTR(mv.genres, tg.genres )>0;
ALTER TABLE genres_movie
ADD FOREIGN KEY (id)
    REFERENCES movie(id),
    ADD FOREIGN KEY (genres)
        REFERENCES genres(genres);
```

```
UPDATE movie_dataset.movie_dataset

SET cast = REPLACE(cast, 'Christopher Robin Miller', 'Christopher Robin_Miller'),

cast = REPLACE(cast, 'Anna Claire Sneed', 'Anna Claire_Sneed'),

cast = REPLACE(cast, 'Edward James Olmos', 'Edward James_Olmos'),

cast = REPLACE(cast, 'Motwani Santhanam VTV', 'Motwani Santhanam'),

cast = REPLACE(REPLACE(cast, 'de', 'de'), 'De'),

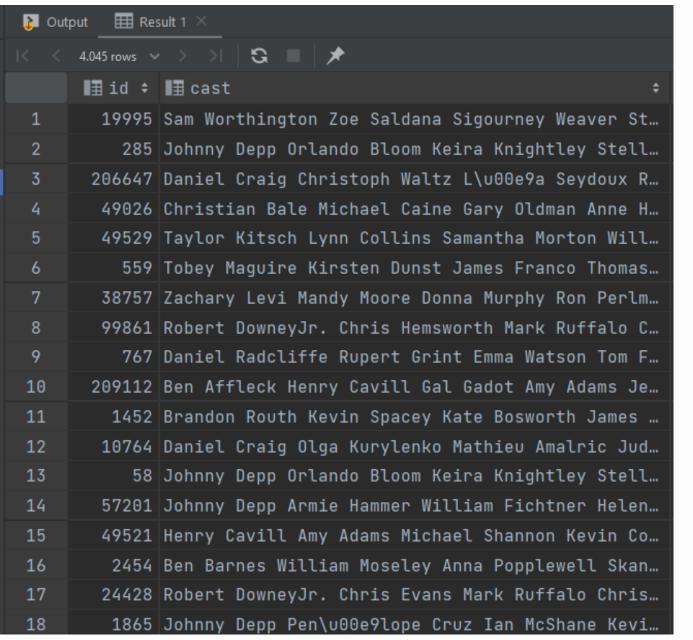
cast = REPLACE(cast, 'Scott Chris Klein Thomas', 'Scott Chris Klein Thomas Thomas'),

cast = REPLACE(cast, 'Biggs Alyson Hannigan', 'Biggs Alyson_Hannigan'),

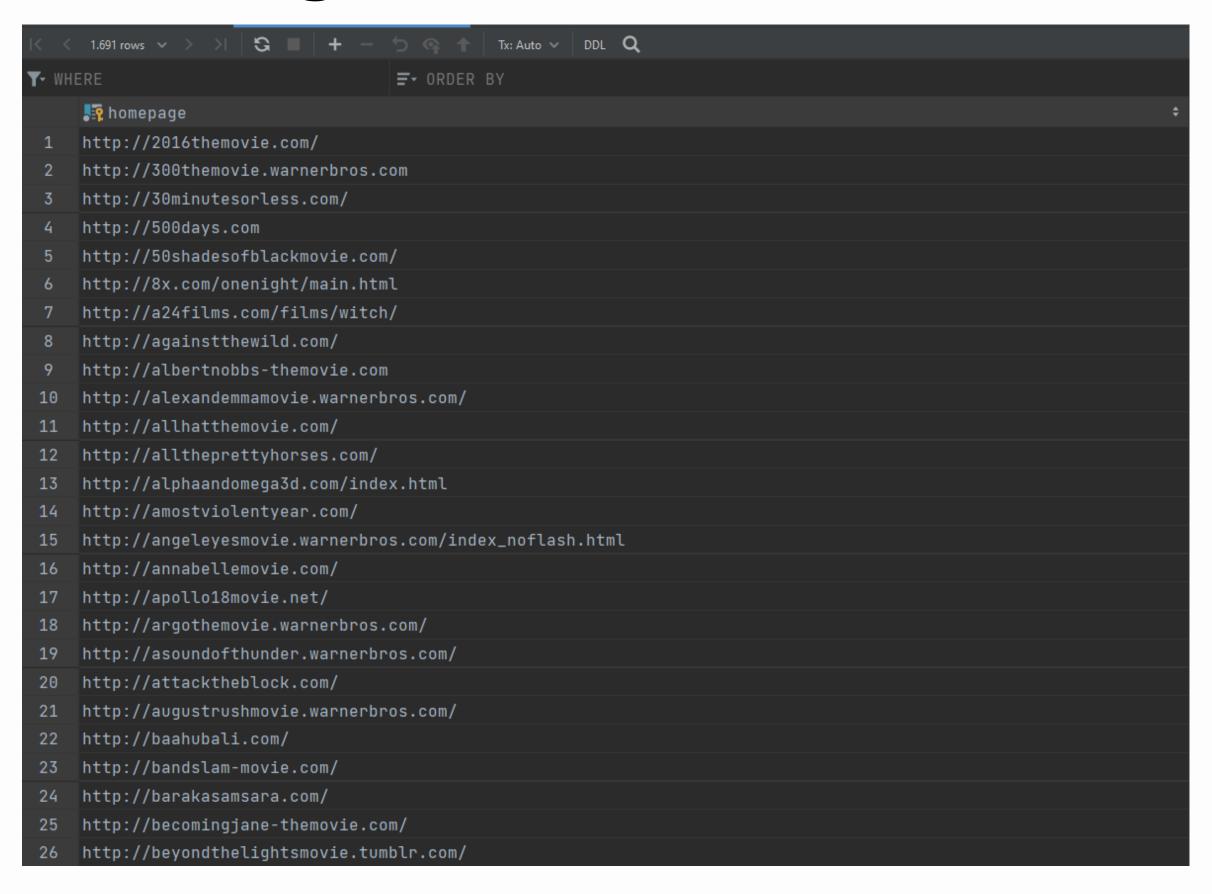
cast = REPLACE(cast, 'Anh Le Guy Pearce', 'Anh Le_Guy Pearce'),

cast = REPLACE(cast, 'Haley Jonny Lee Miller', 'Haley Jonny Miller'),

cast = REPLACE(cast, 'Spears Donovan Womack', 'Spears Donovan Womack');
```



4. Columnas con gran cantidad de nulos



```
Normalización de Homepage ------
DROP TABLE IF EXISTS homepage;
CREATE TABLE homepage(homepage VARCHAR(200)) AS
    SELECT DISTINCT homepage
    FROM movie_dataset.movie_dataset;
DELETE
FROM homepage
WHERE homepage IS NULL;
ALTER TABLE homepage
    ADD PRIMARY KEY (homepage);
CREATE TABLE relacion_homepage (id INT NOT NULL PRIMARY KEY, homepage VARCHAR(200)) AS
    SELECT DISTINCT id, homepage
    FROM movie_dataset.movie_dataset
    WHERE homepage != '' OR homepage IS NOT NULL;
-- Agregamos las claves foráneas de la relacion_homepage a movie y a homepage según corresponda.
JALTER TABLE relacion_homepage
    ADD FOREIGN KEY (id)
        REFERENCES movie(id),
    ADD FOREIGN KEY (homepage)
        REFERENCES homepage(homepage);
```

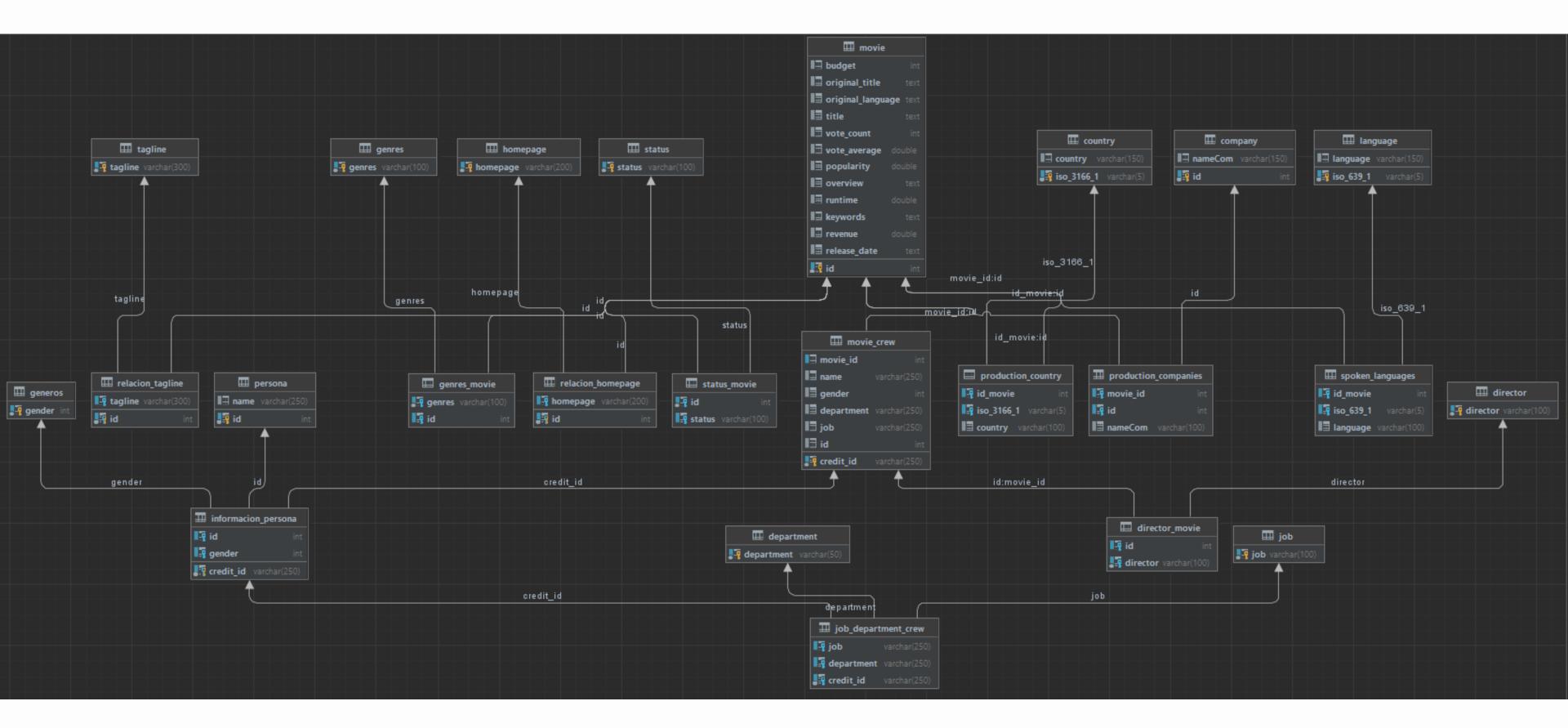
5. Columna Con Formato JSON

```
# [{"iso_639_1": "en", "name": "English"}]
DROP PROCEDURE IF EXISTS spoken_languages;
DELIMITER $$
CREATE PROCEDURE spoken_languages()
BEGIN
DECLARE done INT DEFAULT FALSE;
DECLARE jsonData json;
DECLARE jsonId varchar(250);
DECLARE jsonLabel varchar(250);
 DECLARE movieId INT;
DECLARE i INT;
-- Declarar el cursor
DECLARE myCursor
 CURSOR FOR
  SELECT id, JSON_EXTRACT(CONVERT(spoken_languages USING UTF8MB4), '$[*]')
   FROM movie_dataset.movie_dataset;
 -- Declarar el handler para NOT FOUND
 DECLARE CONTINUE HANDLER
 FOR NOT FOUND SET done = TRUE ;
```

```
-- Declarar el cursor
DECLARE myCursor
  CURSOR FOR
  SELECT id, JSON_EXTRACT(CONVERT(spoken_languages USING UTF8MB4), '$[*]')
  FROM movie_dataset.movie_dataset;
 -- Declarar el handler para NOT FOUND
 DECLARE CONTINUE HANDLER
 FOR NOT FOUND SET done = TRUE ;
 -- Abrir el cursor
 OPEN myCursor ;
 cursorLoop: LOOP
 FETCH myCursor INTO movieId, jsonData;
    SET i = 0;
 IF done THEN
  LEAVE cursorLoop;
  END IF ;
```

```
WHILE(JSON_EXTRACT(jsonData, CONCAT('$[', i, ']')) IS NOT NULL) DO
           SET jsonId = IFNULL(JSON_EXTRACT(jsonData, CONCAT('$[', i, '].iso_639_1')), '');
           SET jsonLabel = IFNULL(JSON_EXTRACT(jsonData, CONCAT('$[', i,'].name')), '');
           SET @sql_text = CONCAT('INSERT INTO spoken_languages VALUES (', movieId, ', ', REPLACE(jsonId,'\'',''), ', ', jsonLabel, '); ')
           PREPARE stmt FROM @sql_text;
           EXECUTE stmt;
           DEALLOCATE PREPARE stmt;
           SET i = i + 1;
          END WHILE;
        END LOOP;
        CLOSE myCursor ;
       END$$
451
       DELIMITER;
       DROP TABLE IF EXISTS spoken_languages;
       CREATE TABLE spoken_languages (
            id_movie INT,
            iso_639_1 VARCHAR(5),
             language VARCHAR(100));
       CALL spoken_languages();
```

Resultado



Gracias Por La Atención Prestada y Perdonad Por Los Errores Cometidos