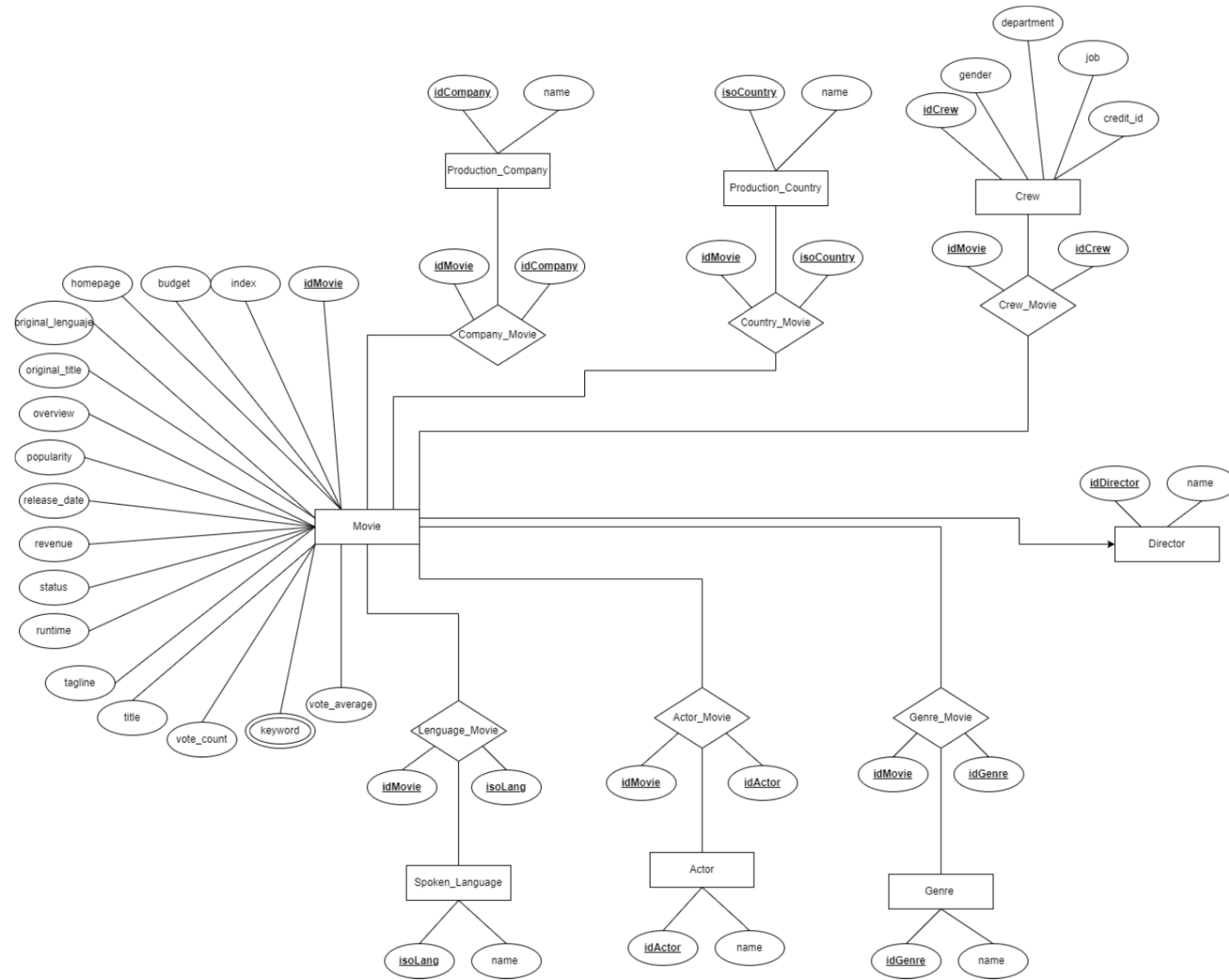


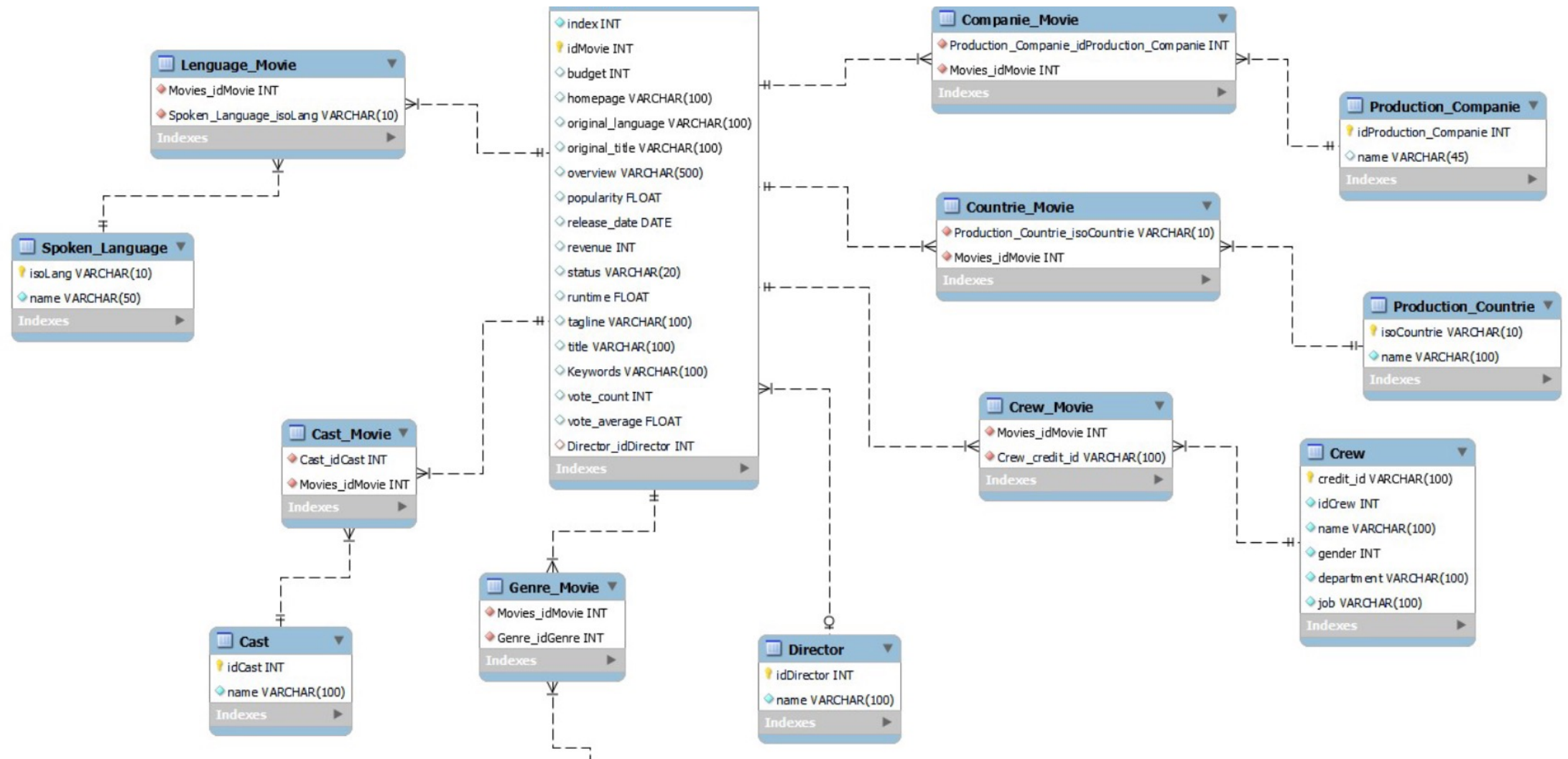
FUNDAMENTOS DE BASES DE DATOS

André Flores

MODELO CONCEPTUAL



MODELO LÓGICO

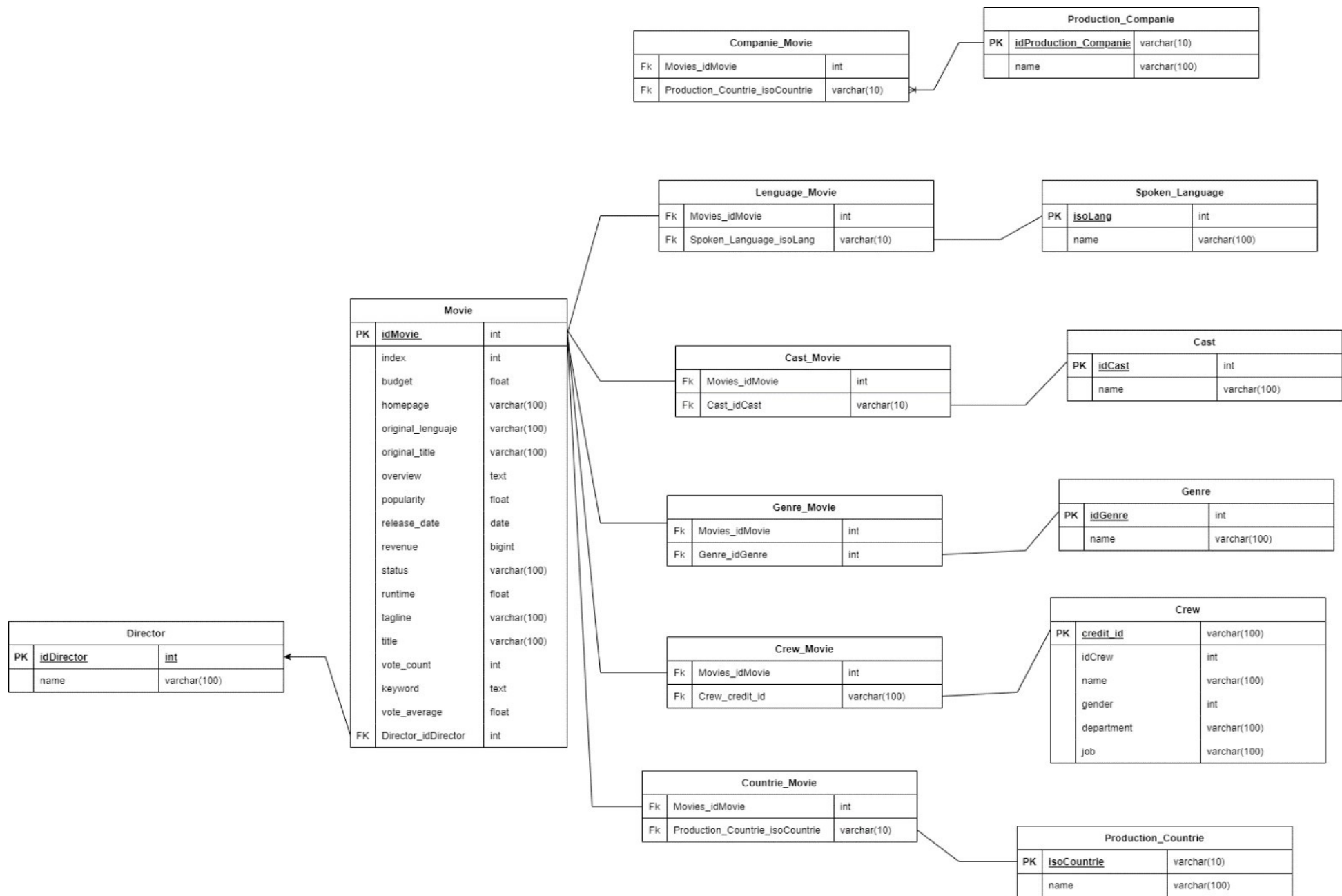


DEPENDENCIAS FUNCIONALES

[illegible]

- $\text{id} \rightarrow \{\text{index, budget, homepage, original_language, original_title, overview, popularity, release_date, revenue, runtime, status, tagline, title, vote_average, vote_count, director}\}$
- $\text{id} \rightarrow \{\text{genres}\}$
- $\text{id} \rightarrow \{\text{keywords}\}$
- $\text{id} \rightarrow \{ \text{ production_companies } \}$
- $\text{id} \rightarrow \{\text{production_countries}\}$
- $\text{id} \rightarrow \{\text{spoken_language}\}$
- $\text{id} \rightarrow \{\text{cast}\}$
- $\text{id} \rightarrow \{\text{crew}\}$

MODELO FÍSICO



Creación de tablas

```
-- Projecto Base
--
-- Table `Director`
--
• DROP DATABASE IF EXISTS Projectobase;
• CREATE DATABASE Projectobase CHARACTER SET utf8mb4;
• USE Projectobase;

-- Table `Director`
--
• DROP TABLE IF EXISTS `Director` ;
• CREATE TABLE IF NOT EXISTS `Director` (
  `idDirector` INT NOT NULL AUTO_INCREMENT,
  `name` VARCHAR(100) NOT NULL,
  PRIMARY KEY (`idDirector`))
ENGINE = InnoDB;

-- Table `Movies`
--
• DROP TABLE IF EXISTS `Movies` ;
• CREATE TABLE IF NOT EXISTS `Movies` (
  `index` INT NOT NULL,
  `idMovie` INT NOT NULL AUTO_INCREMENT,
  `budget` INT NULL,
  `homepage` VARCHAR(1000) NULL,
  `original_language` VARCHAR(1000) NULL,
  `original_title` VARCHAR(1000) NULL,
  `overview` VARCHAR(5000) NULL,
  `popularity` FLOAT NULL,
  `release_date` DATE NULL,
  `revenue` BIGINT NULL,
```

```
  `status` VARCHAR(20) NULL,
  `runtime` FLOAT NULL,
  `tagline` VARCHAR(1000) NULL,
  `title` VARCHAR(1000) NULL,
  `Keywords` VARCHAR(1000) NULL,
  `vote_count` INT NULL,
  `vote_average` FLOAT NULL,
  `Director_idDirector` INT NULL,
  PRIMARY KEY (`idMovie`),
  INDEX `fk_Movies_Director1_idx` (`Director_idDirector` ASC) VISIBLE,
  CONSTRAINT `fk_Movies_Director1`
    FOREIGN KEY (`Director_idDirector`)
      REFERENCES `Director` (`idDirector`)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;

-- Table `Production_Companie`
--
• DROP TABLE IF EXISTS `Production_Companie` ;
• CREATE TABLE IF NOT EXISTS `Production_Companie` (
  `idProduction_Companie` INT NOT NULL AUTO_INCREMENT,
  `name` VARCHAR(45) NULL,
  PRIMARY KEY (`idProduction_Companie`))
ENGINE = InnoDB;
```

Población de tablas

```
DROP PROCEDURE IF EXISTS TablaCompanie ;
DELIMITER $$
CREATE PROCEDURE TablaCompanie ()
BEGIN
    DECLARE done INT DEFAULT FALSE ;
    DECLARE jsonData json ;
    DECLARE jsonId varchar(250) ;
    DECLARE jsonLabel varchar(250) ;
    DECLARE resultSTR LONGTEXT DEFAULT '';
    DECLARE i INT;
    -- Declarar el cursor
    DECLARE myCursor
    CURSOR FOR
        SELECT JSON_EXTRACT(CONVERT(production_companies USING UTF8MB4), '$[*]') FROM movie_dataset ;

    -- Declarar el handler para NOT FOUND (esto es marcar cuando el cursor ha llegado a su fin)
    DECLARE CONTINUE HANDLER
    FOR NOT FOUND SET done = TRUE ;

    -- Abrir el cursor
    OPEN myCursor ;
    drop table if exists production_companietem;
    SET @sql_text = 'CREATE TABLE production_companieTem ( id int, nameCom VARCHAR(100));';
    PREPARE stmt FROM @sql_text;
    EXECUTE stmt;
    DEALLOCATE PREPARE stmt;

    cursorLoop: LOOP
        FETCH myCursor INTO jsonData;
        -- Controlador para buscar cada uno de los arrays
        SET i = 0;
        -- Si alcanzo el final del cursor entonces salir del ciclo repetitivo
        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, '].id')), '');
        SET jsonLabel = IFNULL(JSON_EXTRACT(jsonData, CONCAT('$[', i, '].name')), '');
        SET i = i + 1;
        SET @sql_text = CONCAT('INSERT INTO production_companieTem VALUES (' , REPLACE(jsonId, '\\', '\\'), ', ', jsonLabel, '); ');
    PREPARE stmt FROM @sql_text;
    EXECUTE stmt;
    DEALLOCATE PREPARE stmt;
    END WHILE;
    END LOOP ;

    select distinct * from production_companieTem;
    INSERT INTO production_companie
    SELECT DISTINCT id, nameCom
    FROM production_companieTem;
    drop table if exists production_companieTem;
    CLOSE myCursor ;
END$$
DELIMITER ;
```

Consultas

104 • `SELECT * FROM MovieCursor;`

100% 27:104

Result Grid Filter Rows: Search Edit: Export/Import: Fetch rows:

	index	budget	homepage	id	keywords	original_langua...	original_title
▶	3786	4000000	NULL	5	hotel new year's eve witch bet hotel room	en	Four Rooms
	2912	11000000	http://www.starwars.com/films/star-wars-episod...	11	android galaxy hermit death star lightsaber	en	Star Wars
	328	94000000	http://movies.disney.com/finding-nemo	12	father son relationship harbor underwater fish ta...	en	Finding Nemo
	809	55000000	NULL	13	vietnam veteran hippie mentally disabled runnin...	en	Forrest Gump
	2516	15000000	http://www.dreamworks.com/ab/	14	male nudity female nudity adultery midlife crisis...	en	American Beauty
	2799	12800000	NULL	16	individual dancing usa robbery factory worker	en	Dancer in the Dark
	322	90000000	NULL	18	clone taxi cyborg egypt future	en	The Fifth Element
	2638	92620000	NULL	19	man vs machine underground world inventor m...	de	Metropolis
	4023	0	http://www.clubcultura.com/clubcine/clubcineast...	20	farewell responsibility dying and death night shi...	en	My Life Without Me
	199	140000000	http://disney.go.com/disneyvideos/liveaction/pira...	22	exotic island blacksmith east india trading comp...	en	Pirates of the Caribbean: The Curse of the Black Pearl
	828	30000000	http://www.miramax.com/movie/kill-bill-volume-1/	24	japan coma martial arts kung fu underworld	en	Kill Bill: Vol. 1
	557	72000000	NULL	25	sniper marine corps saudi arabia petrol golf war	en	Jarhead
	1525	31500000	http://www.apocalypsenow.com	28	guerrilla river vietnam vietcong cambodia	en	Apocalypse Now

104 • `SELECT title, director, vote_average FROM MovieCursor WHERE budget > 100000000 AND runtime > 100;`

100% 98:104

Result Grid Filter Rows: Search Export:

	title	director	vote_average
▶	Pirates of the Caribbean: The Curse of the Black Pearl	Gore Verbinski	7.5
	Pirates of the Caribbean: Dead Man's Chest	Gore Verbinski	7
	War of the Worlds	Steven Spielberg	6.2
	Armageddon	Michael Bay	6.4
	Gladiator	Ridley Scott	7.9
	Charlie and the Chocolate Factory	Tim Burton	6.7
	The Dark Knight	Christopher Nolan	8.2
	Ocean's Twelve	Steven Soderbergh	6.4
	Minority Report	Steven Spielberg	7.1
	Indiana Jones and the Kingdom of the Crystal Skull	Steven Spielberg	5.7
	King Kong	Peter Jackson	6.6
	Batman Begins	Christopher Nolan	7.5
	Pirates of the Caribbean: At World's End	Gore Verbinski	6.9

54 • `SELECT * FROM directorCURSOR WHERE name LIKE '%jr%';`

100% 53:54

Result Grid Filter Rows: Search Edit: Export/Import:

	name
▶	Al Silliman Jr.
	Daniel Petrie, Jr.
	George Tillman, Jr.
	Michael Hoffman Jr.
	Michael Landon Jr.
	Sergei Bodrov Jr.
	Timothy Woodward Jr.
	NULL

Gracias
