-- MySQL Script generated by MySQL Workbench -- Sat Mar 15 16:44:48 2025 -- Model: Sakila Full Version: 2.0 -- MySQL Workbench Forward Engineering

SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0; SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0; SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='TRADITIONAL,ALLOW_INVALID_DATES';

-- Schema sakila

-- Table `Aluno`

DROP TABLE IF EXISTS `Aluno` ;

CREATE TABLE IF NOT EXISTS `Aluno` (`CPF` VARCHAR(11) NOT NULL, `Sexo` CHAR(1) NULL, `Nome` VARCHAR(45) NULL, `Data de Nascimento` DATETIME NULL, PRIMARY KEY (`CPF`)) ENGINE = InnoDB;

-- Table `Area`

DROP TABLE IF EXISTS `Area` ;

CREATE TABLE IF NOT EXISTS `Area` (`Silga` VARCHAR(2) NOT NULL, `Nome` VARCHAR(45) NULL, PRIMARY KEY (`Silga`)) ENGINE = InnoDB;

-- Table `Area_has_Area`

DROP TABLE IF EXISTS `Area_has_Area` ;

CREATE TABLE IF NOT EXISTS `Area_has_Area` (`Area_Silga` VARCHAR(2) NOT NULL, `Area_Silga1` VARCHAR(2) NOT NULL, PRIMARY KEY (`Area_Silga`, `Area_Silga1`), CONSTRAINT `fk_Area_has_Area_Area1` FOREIGN KEY (`Area_Silga`) REFERENCES `Area` (`Silga`) ON DELETE NO ACTION ON UPDATE NO ACTION, CONSTRAINT

```
fk_Area_has_Area_Area2 FOREIGN KEY (Area_Silga1) REFERENCES Area (Silga)
ON DELETE NO ACTION ON UPDATE NO ACTION) ENGINE = InnoDB;

CREATE INDEX fk_Area_has_Area_Area2_idx ON Area_has_Area (Area_Silga1
ASC);

CREATE INDEX fk_Area_has_Area_Area1_idx ON Area_has_Area (Area_Silga
ASC);


-- Table Curso


DROP TABLE IF EXISTS Curso ;

CREATE TABLE IF NOT EXISTS Curso ( Sigla VARCHAR(2) NOT NULL, Nome
VARCHAR(45) NULL, Horas TIME NULL, Custo FLOAT NULL, Area VARCHAR(45) NULL,
Professores VARCHAR(45) NULL, Modulo_Sigla VARCHAR(2) NOT NULL, PRIMARY
KEY (Sigla), CONSTRAINT fk_Curso_Modulo1 FOREIGN KEY (Modulo_Sigla)
REFERENCES Modulo (Sigla) ON DELETE NO ACTION ON UPDATE NO ACTION)
ENGINE = InnoDB;

CREATE INDEX fk_Curso_Modulo1_idx ON Curso (Modulo_Sigla ASC);


-- Table Curso_has_Area


DROP TABLE IF EXISTS Curso_has_Area ;

CREATE TABLE IF NOT EXISTS Curso_has_Area ( Curso_Sigla VARCHAR(2) NOT
NULL, Area_Silga VARCHAR(2) NOT NULL, PRIMARY KEY (Curso_Sigla,
Area_Silga), CONSTRAINT fk_Curso_has_Area_Curso1 FOREIGN KEY
(Curso_Sigla) REFERENCES Curso (Sigla) ON DELETE NO ACTION ON UPDATE NO
ACTION, CONSTRAINT fk_Curso_has_Area_Area1 FOREIGN KEY (Area_Silga)
REFERENCES Area (Silga) ON DELETE NO ACTION ON UPDATE NO ACTION) ENGINE
= InnoDB;

CREATE INDEX fk_Curso_has_Area_Area1_idx ON Curso_has_Area (Area_Silga
ASC);
```

```
CREATE INDEX fk_Curso_has_Area_Curso1_idx ON Curso_has_Area
(Curso_Sigla ASC);


-- Table Matricula


DROP TABLE IF EXISTS Matricula ;

CREATE TABLE IF NOT EXISTS Matricula ( Curso_Sigla VARCHAR(2) NOT NULL,
Aluno_CPF VARCHAR(11) NOT NULL, Data DATETIME NULL, Pagou FLOAT NULL,
PRIMARY KEY (Curso_Sigla, Aluno_CPF), CONSTRAINT
fk_Curso_has_Aluno_Curso1 FOREIGN KEY (Curso_Sigla) REFERENCES Curso
(Sigla) ON DELETE NO ACTION ON UPDATE NO ACTION, CONSTRAINT
fk_Curso_has_Aluno_Aluno1 FOREIGN KEY (Aluno_CPF) REFERENCES Aluno (CPF)
ON DELETE NO ACTION ON UPDATE NO ACTION) ENGINE = InnoDB;

CREATE INDEX fk_Curso_has_Aluno_Aluno1_idx ON Matricula (Aluno_CPF ASC);

CREATE INDEX fk_Curso_has_Aluno_Curso1_idx ON Matricula (Curso_Sigla
ASC);


-- Table Modulo


DROP TABLE IF EXISTS Modulo ;

CREATE TABLE IF NOT EXISTS Modulo ( Sigla VARCHAR(2) NOT NULL, Nome
VARCHAR(45) NULL, Topicos_Sigla VARCHAR(2) NOT NULL, PRIMARY KEY (Sigla),
CONSTRAINT fk_Modulo_Topicos1 FOREIGN KEY (Topicos_Sigla) REFERENCES
Topicos (Sigla) ON DELETE NO ACTION ON UPDATE NO ACTION) ENGINE = InnoDB;

CREATE INDEX fk_Modulo_Topicos1_idx ON Modulo (Topicos_Sigla ASC);


-- Table Topicos


DROP TABLE IF EXISTS Topicos ;
```

```
CREATE TABLE IF NOT EXISTS Topicos ( Sigla VARCHAR(2) NOT NULL, Nome VARCHAR(45) NULL, Horas TIME NULL, PRIMARY KEY (Sigla)) ENGINE = InnoDB COMMENT = '';


-- Table actor


DROP TABLE IF EXISTS actor ;

CREATE TABLE IF NOT EXISTS actor ( actor_id SMALLINT UNSIGNED NOT NULL AUTO_INCREMENT, first_name VARCHAR(45) NOT NULL, last_name VARCHAR(45) NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (actor_id)) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE INDEX idx_actor_last_name ON actor (last_name ASC);


-- Table address


DROP TABLE IF EXISTS address ;

CREATE TABLE IF NOT EXISTS address ( address_id SMALLINT UNSIGNED NOT NULL AUTO_INCREMENT, address VARCHAR(50) NOT NULL, address2 VARCHAR(50) NULL DEFAULT NULL, district VARCHAR(20) NOT NULL, city_id SMALLINT UNSIGNED NOT NULL, postal_code VARCHAR(10) NULL DEFAULT NULL, phone VARCHAR(20) NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (address_id), CONSTRAINT fk_address_city FOREIGN KEY (city_id) REFERENCES city (city_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE INDEX idx_fk_city_id ON address (city_id ASC);


-- Table category


DROP TABLE IF EXISTS category ;
```

CREATE TABLE IF NOT EXISTS category (category_id TINYINT UNSIGNED NOT NULL AUTO_INCREMENT, name VARCHAR(25) NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (category_id)) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

-- Table city

DROP TABLE IF EXISTS city ;

CREATE TABLE IF NOT EXISTS city (city_id SMALLINT UNSIGNED NOT NULL AUTO_INCREMENT, city VARCHAR(50) NOT NULL, country_id SMALLINT UNSIGNED NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (city_id), CONSTRAINT fk_city_country FOREIGN KEY (country_id) REFERENCES country (country_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE INDEX idx_fk_country_id ON city (country_id ASC);

-- Table country

DROP TABLE IF EXISTS country ;

CREATE TABLE IF NOT EXISTS country (country_id SMALLINT UNSIGNED NOT NULL AUTO_INCREMENT, country VARCHAR(50) NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (country_id)) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

-- Table customer

DROP TABLE IF EXISTS customer ;

CREATE TABLE IF NOT EXISTS customer (customer_id SMALLINT UNSIGNED NOT NULL AUTO_INCREMENT, store_id TINYINT UNSIGNED NOT NULL, first_name

VARCHAR(45) NOT NULL, last_name VARCHAR(45) NOT NULL, email VARCHAR(50) NULL DEFAULT NULL, address_id SMALLINT UNSIGNED NOT NULL, active TINYINT(1) NOT NULL DEFAULT TRUE, create_date DATETIME NOT NULL, last_update TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (customer_id), CONSTRAINT fk_customer_address FOREIGN KEY (address_id) REFERENCES address (address_id) ON DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_customer_store FOREIGN KEY (store_id) REFERENCES store (store_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8 COMMENT = 'Table storing all customers. Holds foreign keys to the address table and the store table where this customer is registered. \n\nBasic information about the customer like first and last name are stored in the table itself. Same for the date the record was created and when the information was last updated.';

CREATE INDEX idx_fk_store_id ON customer (store_id ASC);

CREATE INDEX idx_fk_address_id ON customer (address_id ASC);

CREATE INDEX idx_last_name ON customer (last_name ASC);

-- Table film

DROP TABLE IF EXISTS film ;

CREATE TABLE IF NOT EXISTS film (film_id SMALLINT UNSIGNED NOT NULL AUTO_INCREMENT, title VARCHAR(255) NOT NULL, description TEXT NULL, release_year YEAR NULL, language_id TINYINT UNSIGNED NOT NULL, original_language_id TINYINT UNSIGNED NULL DEFAULT NULL, rental_duration TINYINT UNSIGNED NOT NULL DEFAULT 3, rental_rate DECIMAL(4,2) NOT NULL DEFAULT 4.99, length SMALLINT UNSIGNED NULL DEFAULT NULL, replacement_cost DECIMAL(5,2) NOT NULL DEFAULT 19.99, rating ENUM('G','PG','PG-13','R','NC-17') NULL DEFAULT 'G', special_features SET('Trailers','Commentaries','Deleted Scenes','Behind the Scenes') NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (film_id), CONSTRAINT fk_film_language FOREIGN KEY (language_id) REFERENCES language (language_id) ON DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_film_language_original FOREIGN KEY (original_language_id) REFERENCES language (language_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE INDEX idx_title ON film (title ASC);

CREATE INDEX idx_fk_language_id ON film (language_id ASC);

CREATE INDEX idx_fk_original_language_id ON film (original_language_id ASC);

-- Table film_actor

DROP TABLE IF EXISTS film_actor ;

CREATE TABLE IF NOT EXISTS film_actor (actor_id SMALLINT UNSIGNED NOT NULL, film_id SMALLINT UNSIGNED NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (actor_id, film_id), CONSTRAINT fk_film_actor_actor FOREIGN KEY (actor_id) REFERENCES actor (actor_id) ON DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_film_actor_film FOREIGN KEY (film_id) REFERENCES film (film_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE INDEX idx_fk_film_id ON film_actor (film_id ASC);

CREATE INDEX fk_film_actor_actor_idx ON film_actor (actor_id ASC);

-- Table film_category

DROP TABLE IF EXISTS film_category ;

CREATE TABLE IF NOT EXISTS film_category (film_id SMALLINT UNSIGNED NOT NULL, category_id TINYINT UNSIGNED NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (film_id, category_id), CONSTRAINT fk_film_category_film FOREIGN KEY (film_id) REFERENCES film (film_id) ON DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_film_category_category FOREIGN KEY (category_id) REFERENCES category (category_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

```
CREATE INDEX fk_film_category_category_idx ON film_category
(category_id ASC);

CREATE INDEX fk_film_category_film_idx ON film_category (film_id ASC);


-- Table film_text


DROP TABLE IF EXISTS film_text ;

CREATE TABLE IF NOT EXISTS film_text ( film_id SMALLINT UNSIGNED NOT NULL,
title VARCHAR(255) NOT NULL, description TEXT NULL, PRIMARY KEY (film_id))
ENGINE = InnoDB;

CREATE FULLTEXT INDEX idx_title_description ON film_text (title,
description);


-- Table inventory


DROP TABLE IF EXISTS inventory ;

CREATE TABLE IF NOT EXISTS inventory ( inventory_id MEDIUMINT UNSIGNED
NOT NULL AUTO_INCREMENT, film_id SMALLINT UNSIGNED NOT NULL, store_id
TINYINT UNSIGNED NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT
CURRENT_TIMESTAMP, PRIMARY KEY (inventory_id), CONSTRAINT
fk_inventory_store FOREIGN KEY (store_id) REFERENCES store (store_id) ON
DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_inventory_film
FOREIGN KEY (film_id) REFERENCES film (film_id) ON DELETE RESTRICT ON
UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE INDEX idx_fk_film_id ON inventory (film_id ASC);

CREATE INDEX idx_store_id_film_id ON inventory (store_id ASC, film_id
ASC);

CREATE INDEX fk_inventory_store_idx ON inventory (store_id ASC);
```

-- Table language

DROP TABLE IF EXISTS language ;

CREATE TABLE IF NOT EXISTS language (language_id TINYINT UNSIGNED NOT NULL AUTO_INCREMENT, name CHAR(20) NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (language_id)) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

-- Table payment

DROP TABLE IF EXISTS payment ;

CREATE TABLE IF NOT EXISTS payment (payment_id SMALLINT UNSIGNED NOT NULL AUTO_INCREMENT, customer_id SMALLINT UNSIGNED NOT NULL, staff_id TINYINT UNSIGNED NOT NULL, rental_id INT NULL DEFAULT NULL, amount DECIMAL(5,2) NOT NULL, payment_date DATETIME NOT NULL, last_update TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (payment_id), CONSTRAINT fk_payment_rental FOREIGN KEY (rental_id) REFERENCES rental (rental_id) ON DELETE SET NULL ON UPDATE CASCADE, CONSTRAINT fk_payment_customer FOREIGN KEY (customer_id) REFERENCES customer (customer_id) ON DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_payment_staff FOREIGN KEY (staff_id) REFERENCES staff (staff_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE INDEX idx_fk_staff_id ON payment (staff_id ASC);

CREATE INDEX idx_fk_customer_id ON payment (customer_id ASC);

CREATE INDEX fk_payment_rental_idx ON payment (rental_id ASC);

-- Table rental

DROP TABLE IF EXISTS rental ;

CREATE TABLE IF NOT EXISTS rental (rental_id INT NOT NULL AUTO_INCREMENT, rental_date DATETIME NOT NULL, inventory_id MEDIUMINT UNSIGNED NOT NULL, customer_id SMALLINT UNSIGNED NOT NULL, return_date DATETIME NULL, staff_id TINYINT UNSIGNED NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (rental_id), CONSTRAINT fk_rental_staff FOREIGN KEY (staff_id) REFERENCES staff (staff_id) ON DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_rental_inventory FOREIGN KEY (inventory_id) REFERENCES inventory (inventory_id) ON DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_rental_customer FOREIGN KEY (customer_id) REFERENCES customer (customer_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE UNIQUE INDEX idx_rental ON rental (rental_date ASC, inventory_id ASC, customer_id ASC);

CREATE INDEX idx_fk_inventory_id ON rental (inventory_id ASC);

CREATE INDEX idx_fk_customer_id ON rental (customer_id ASC);

CREATE INDEX idx_fk_staff_id ON rental (staff_id ASC);

-- Table staff

DROP TABLE IF EXISTS staff ;

CREATE TABLE IF NOT EXISTS staff (staff_id TINYINT UNSIGNED NOT NULL AUTO_INCREMENT, first_name VARCHAR(45) NOT NULL, last_name VARCHAR(45) NOT NULL, address_id SMALLINT UNSIGNED NOT NULL, picture BLOB NULL, email VARCHAR(50) NULL DEFAULT NULL, store_id TINYINT UNSIGNED NOT NULL, active TINYINT(1) NOT NULL DEFAULT TRUE, username VARCHAR(16) NOT NULL, password VARCHAR(40) BINARY NULL DEFAULT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (staff_id), CONSTRAINT fk_staff_store FOREIGN KEY (store_id) REFERENCES store (store_id) ON DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_staff_address FOREIGN KEY (address_id) REFERENCES address (address_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE INDEX idx_fk_store_id ON staff (store_id ASC);

CREATE INDEX idx_fk_address_id ON staff (address_id ASC);

-- Table store

DROP TABLE IF EXISTS store ;

CREATE TABLE IF NOT EXISTS store (store_id TINYINT UNSIGNED NOT NULL AUTO_INCREMENT, manager_staff_id TINYINT UNSIGNED NOT NULL, address_id SMALLINT UNSIGNED NOT NULL, last_update TIMESTAMP NOT NULL DEFAULT CURRENT_TIMESTAMP, PRIMARY KEY (store_id), CONSTRAINT fk_store_staff FOREIGN KEY (manager_staff_id) REFERENCES staff (staff_id) ON DELETE RESTRICT ON UPDATE CASCADE, CONSTRAINT fk_store_address FOREIGN KEY (address_id) REFERENCES address (address_id) ON DELETE RESTRICT ON UPDATE CASCADE) ENGINE = InnoDB DEFAULT CHARACTER SET = utf8;

CREATE UNIQUE INDEX idx_unique_manager ON store (manager_staff_id ASC);

CREATE INDEX idx_fk_address_id ON store (address_id ASC);

SET SQL_MODE=@OLD_SQL_MODE; SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS; SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS;