

Task 3.10 Presenting SQL Results
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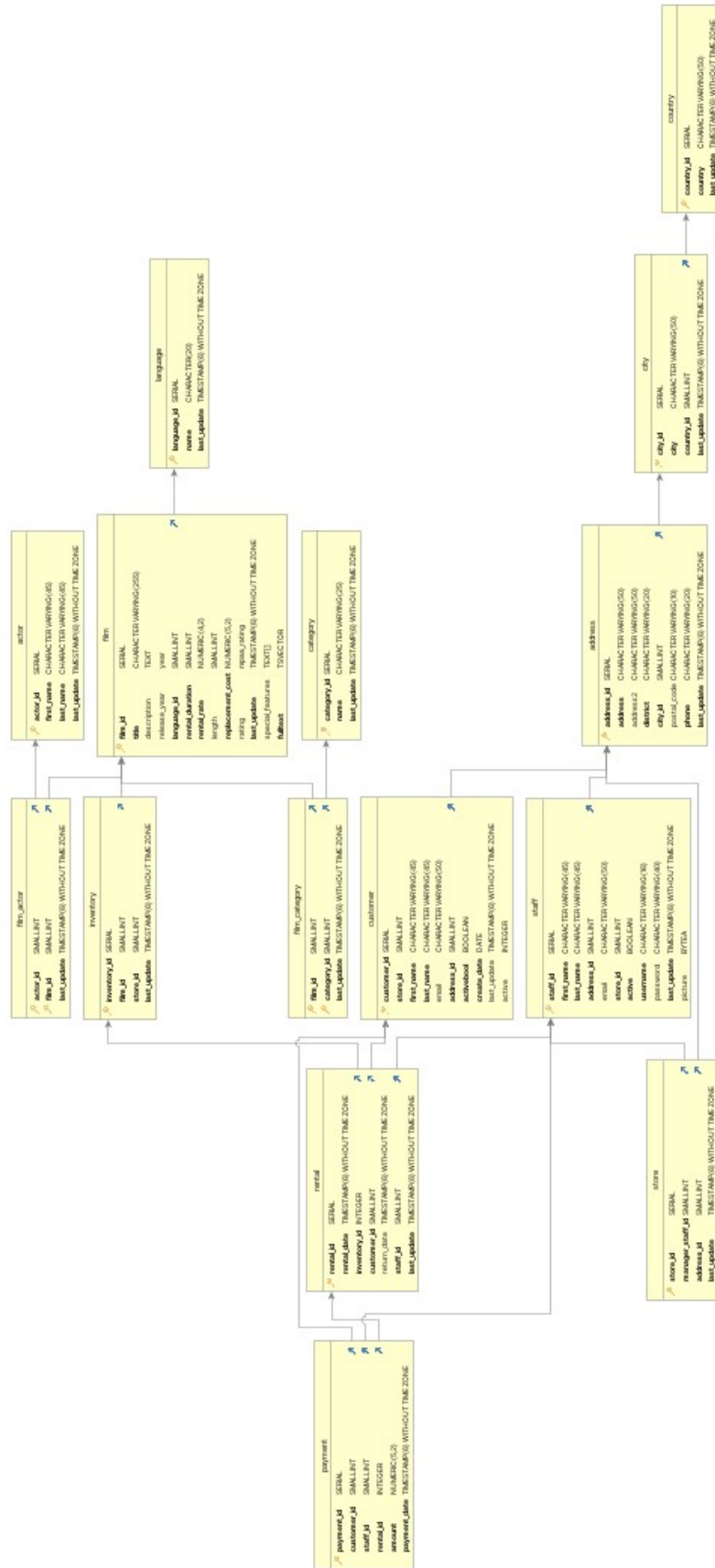
ROCKBUSTER

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1 Entity Relationship Diagram



2 Fact Tables

2.1 Payment

Payment		
Column	Data Type	Description
payment_id	serial	Unique identifier for payment
customer_id	small int	Unique identifier for customer
staff_id	small int	Unique identifier for staff
rental_id	integer	Unique identifier for rental
amount	numeric	Payment cost
payment_date	timestamp	Payment date and time

Links to	
Table	Join
Rental	Payment.rental_id = Rental.rental_id
Customer	Payment.customer_id = Customer.customer_id
Staff	Payment.staff_id = Staff.staff_id

Links from	
Table	Join
No links from other tables	

Keys	
Column	Key Type
payment_id	Primary Key
customer_id	Foreign Key
staff_id	Foreign Key
rental_id	Foreign Key

2.2 Rental

Rental		
Column	Data Type	Description
rental_id	serial	Unique identifier for rental
rental_date	timestamp	Rental data and time
inventory_id	int4	Unique id for inventory
customer_id	int2	Unique identifier for customer
return_date	timestamp	Rental return date and time
staff_id	int2	Unique identifier for staff
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Inventory	Rental.inventory_id = Inventory.inventory_id
Customer	Rental.customer_id = Customer.customer_id
Staff	Rental.staff_id = Staff.staff_id

Links from	
Table	Join
Payment	Rental.rental_id = Payment.rental_id

Keys	
Column	Key Type
rental_id	Primary Key
inventory_id	Foreign Key
customer_id	Foreign Key
staff_id	Foreign Key

3 Dimension Tables

3.1 Actor

Actor		
Column	Data Type	Description
actor_id	serial	Unique identifier for actor
first_name	varchar	Actor first name
last_name	varchar	Actor last name
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Links to no other tables	

Links from	
Table	Join
Film Actor	Actor.actor_id = Film_actor.actor_id

Keys	
Column	Key Type
actor_id	Primary Key

3.2 Address

Address		
Column	Data Type	Description
address_id	serial	Unique identifier for address
address	varchar	First line address
address2	varchar	Second line address
district	varchar	District of address
city_id	int2	Unique identifier for city
postal_code	varchar	Postal code of address
phone	varchar	Phone number of address
last_update	timestamp	Date and time of last update

Links to	
Table	Join
City	Address.city_id = City.city_id

Links from	
Table	Join
Customer	Address.address_id = Customer.address_id
Staff	Address.address_id = Staff.address_id
Store	Address.address_id = Store_address_id

Keys	
Column	Key Type
Address_id	Primary Key
City_id	Foreign Key

3.3 Customer

Customer		
Column	Data Type	Description
store_id	int2	Unique identifier for store
last_update	timestamp	Date and time of last update
last_name	varchar	Last name of customer
first_name	varchar	First name of customer
email	varchar	Email email of customer
customer_id	serial	Unique identifier of customer
create_date	date	Create date of customer profile
address_id	int2	Unique identifier of address
activebool	bool	Status of whether the customer is active or not
active	int4	Active status represented by 1 or 0

Links to	
Table	Join
Address	Customer.address_id = Address.address_id

Links from	
Table	Join
Payment	Customer.customer_id = Payment.customer_id
Rental	Customer.customer_id = Rental.customer_id

Keys	
Column	Key Type
Customer_id	Primary Key
Address_id	Foreign Key

3.4 Category

Category		
Column	Data Type	Description
category_id	serial	Unique identifier for category
name	varchar	Category name
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Links to no other tables	

Links from	
Table	Join
Film category	Category.category_id = Film_category.category_id

Keys	
Column	Key Type
Category_id	Primary Key

3.5 City

City		
Column	Data Type	Description
city_id	serial	Unique identifier for city
city	varchar	City name
country_id	int2	Unique identifier for country
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Country	City.country_id = Country.country_id

Links from	
Table	Join
Address	City.city_id = Address.city_id

Keys	
Column	Key Type
City_id	Primary Key

3.6 Country

Country		
Column	Data Type	Description
country_id	serial	Unique identifier for country
country	varchar	Country name
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Links to no other tables	

Links from	
Table	Join
City	Country.country_id = City.country_id

Keys	
Column	Key Type
Country_id	Primary Key

3.7 Film

Film		
Column	Data Type	Description
film_id	serial	Unique identifier for film
title	varchar	Title of film
description	text	Description of film
release_year	year	Year the film was released
language_id	int2	Language of the film
rental_duration	int2	How long the film was rented for
rental_rate	numeric	Cost of rental
length	int2	Length of film
replacement_cost	numeric	Cost to replace film
rating	mpaa_rating	rating of film
last_update	timestamp	Date and time of last update
special_features	_text	Special features of film
fulltext	tsvector	Full text index - info about specific words and their location

Links to	
Table	Join
Language	Film.language_id = Language.language_id

Links from	
Table	Join
Film_actor	Film.film_id = Film_actor.film_id
Inventory	Film.film_id = Inventory.film_id
Film_category	Film.film_id = Film_category.film_id

Keys	
Column	Key Type
Film_id	Primary Key
Language_id	Foreign Key

3.8 Film Actor

Film Actor		
Column	Data Type	Description
actor_id	int2	Unique identifier for actor
film_id	int2	Unique identifier for film
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Actor	Film_actor.actor_id = Actor.actor_id
Film	Film_actor.film_id = Film.film_id

Links from	
Table	Join
Links from no other tables	

Keys	
Column	Key Type
Actor_id	Primary Key
Film_id	Primary Key

3.9 Film Category

Film Category		
Column	Data Type	Description
film_id	int2	Unique identifier for film
category_id	int2	Unique identifier for category
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Film	Film_category.film_id = Film.film_id
Category	Film_category.category_id = Category.category_id

Links from	
Table	Join
Links from no other tables	

Keys	
Column	Key Type
Film_id	Primary Key
Category_id	Primary Key

3.10 Inventory

Inventory		
Column	Data Type	Description
inventory_id	serial	Unique identifier for inventory
film_id	int2	Unique identifier for film
store_id	int2	Unique identifier for store
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Film	Inventory.film_id = Film.film_id

Links from	
Table	Join
Rental	Inventory.inventory_id = Rental.inventory_id

Keys	
Column	Key Type
Inventory_id	Primary Key
Film_id	Foregin Key

3.11 Language

Language		
Column	Data Type	Description
language_id	serial	Unique identifier for language
name	bpchar	Language name
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Links to no other tables	

Links from	
Table	Join
Film	Language.language_id = Film.language_id

Keys	
Column	Key Type
Language_id	Primary Key

3.12 Staff

Staff		
Column	Data Type	Description
staff_id	serial	Unique identifier for staff
first_name	varchar	Staff first name
last_name	varchar	Staff last name
address_id	int2	Unique identifier for staff address
email	varchar	Staff email address
store_id	int2	Unique identifier for store
active	bool	Status of whether the staff is currently employed
username	varchar	Staff username
password	varchar	Staff password
last_update	timestamp	Date and time of last update
picture	bytea	Picture of staff member

Links to	
Table	Join
Address	Staff.address_id = Address.address_id

Links from	
Table	Join
Rental	Staff.staff_id = Rental.staff_id
Payment	Staff.staff_id = Payment.staff_id
Store	Staff.staff_id = Store.staff_id

Keys	
Column	Key Type
Staff_id	Primary Key
Address_id	Foreign Key

3.13 Store

Store		
Column	Data Type	Description
store_id	serial	Unique identifier for store
manager_staff_id	int2	Unique identifier for manager
address_id	int2	Unique identifier for address
last_update	timestamp	Date and time of last update

Links to	
Table	Join
Staff	Store.manager_staff_id = Staff.staff_id
Address	Store.address_id = Address.address_id

Links from	
Table	Join
Links from no other tables	

Keys	
Column	Key Type
Store_id	Primary Key
Manager_staff_id	Foreign Key
Address_id	Foreign Key