

Rockbuster  
Stealth LLC

# Data Analysis Project



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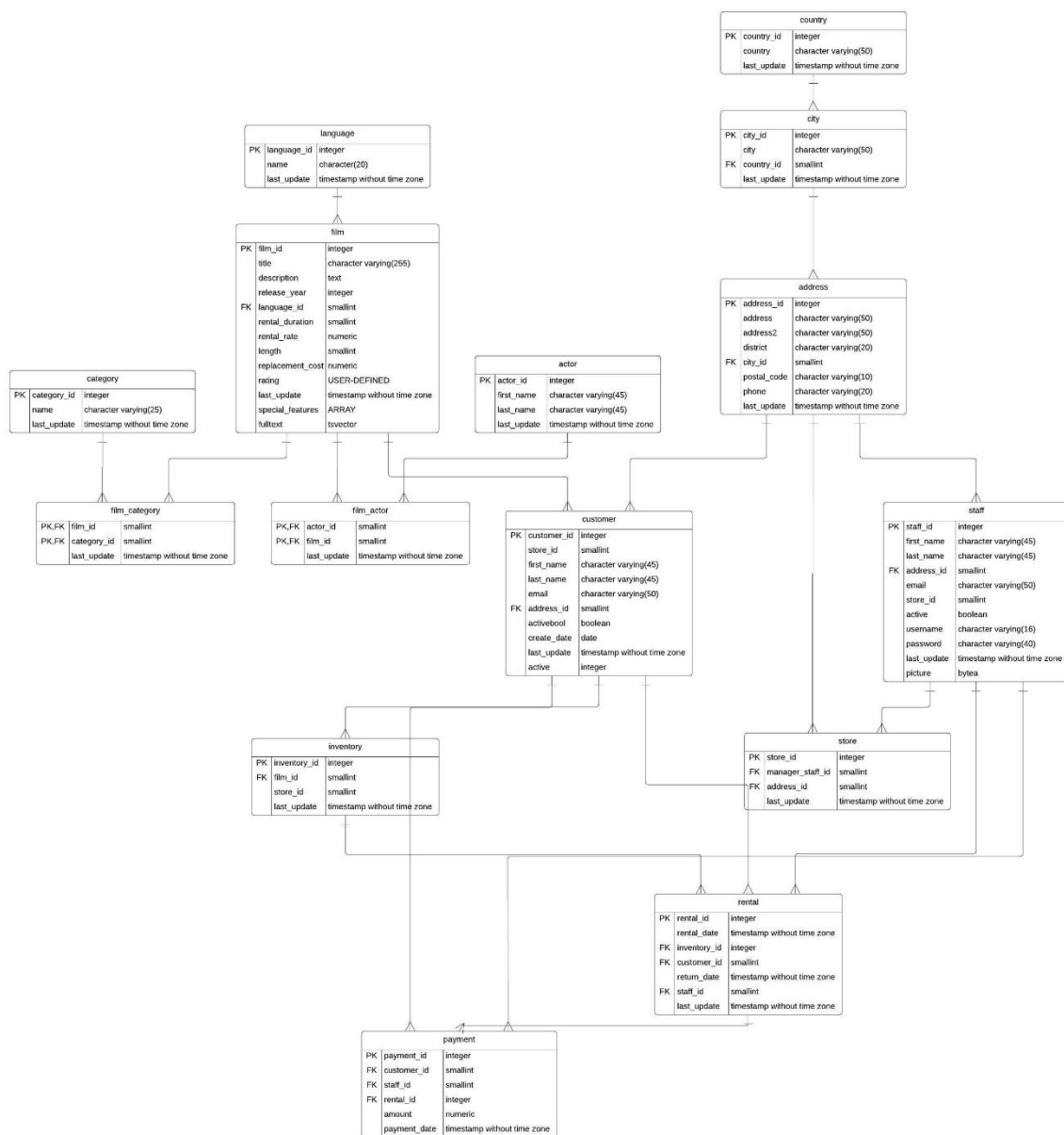
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# Rockbuster Entity Relationship Diagram



Payments, rental information, staff, and customer information, and film information all linked to one table – the payment table, which houses the IDs for all payments, customers, staff, and rentals.

## Legend







Primary key







Foreign key

## Fact tables

### Fact table: rental

	Columns	Data Type	Description
	rental_id	Integer	Unique ID of each rental instance.
	rental_date	Timestamp without time zone	Timestamp of date of rental.
	inventory_id	Integer	Unique ID for each rental in inventory.
	customer_id	Smallint	Unique ID given to each customer.
	return_date	Timestamp without time zone	Timestamp of return of rental.
	staff_id	Smallint	Unique ID given to each employee.
	last_update	Timestamp without time zone	Timestamp with the information of the last update to the table.
Links to			
Table name		Join	
inventory		rental.inventory_id = inventory.inventory_id	
customer		rental.customer_id = customer.customer_id	
staff		rental.staff_id = staff.staff_id	
Links from			
Payment		rental.rental_id=payment.rental_id	




### Fact table: payment

	Columns	Data Type	Description
	payment_id	integer	Unique ID given to each payment.
	customer_id	smallint	Unique ID given to each customer.
	staff_id	smallint	Unique ID given to each employee.
	rental_id	integer	Unique ID of each rental instance.



	amount	numeric	Amount paid by customer for rental.
	payment_date	timestamp without timezone	Timestamp of when payment was received.
Links to			
Table name		Join	
rental		payment.rental_id=rental.rental_id	
customer		payment.customer_id = customer.customer_id	
staff		payment. staff_id=staff.staff_id	

## Dimension tables

### Dimension table: store




	Columns	Data Type	Description
	store_id	smallint	Unique ID given to each Rockbuster store.
	manager_staff_id	smallint	Unique ID given to each store manager.
	address_id	smallint	Unique ID given to each address.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
Links to			
Table name		Join	
staff		store.manager_staff_id = staff.staff_id	
address		store.address_id = address.address_id	

### Dimension table: film\_actor



	Columns		Data Type	Description
	actor_id		smallint	Unique ID given to each actor.
	film_id		integer	Unique ID given to each film.
	last_update		timestamp without time zone	Timestamp with the information of the last update to the table.
		Links to		
Table name			Join	

actor		film_actor.actor_id = actor.actor_id
film		film_actor.film_id = film.film_id


Dimension table: inventory


	Columns	Data Type	Description
	inventory_id	serial	Unique Id given to each rental unit in inventory.
	film_id	smallint	Unique ID given to each film.
	store_id	smallint	Unique ID given to each Rockbuster store.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
Links to			
Table name		Join	
staff		payment. staff_id=staff.staff_id	
Links from			
rental		inventory.inventory_id = rental.inventory_id	

Dimension table: film\_category



	Columns	Data Type	Description
	film_id	integer	Unique ID given to each film.
	category_id	smallint	Unique ID given to each film category.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
Links to			
Table name		Join	
category		film_category.category_id = category.category_id	
film		film_category.film_id = film.film_id	

Dimension table: customer

	Columns	Data Type	Description
	customer_id	smallint	Unique ID given to each customer.

	store_id	smallint	Unique ID given to each Rockbuster store.
	first_name	character varying (45)	First name of the customer.
	last_name	character varying (45)	Last name of the customer.
	email	character varying (50)	Customer's email address.
	address_id	smallint	Unique ID given to each address.
	activebool	boolean	Active status of the customer (true or false).
	create_date	date	Date on which the account was created.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
	active	integer	Active status of the customer (0 or 1).
Links to			
Table name		Join	
address		customer.address_id = address.address_id	
rental		customer.rental_id = rental.rental_id	
payment		customer.customer_id = payment.customer_id	


Dimension table: staff

	Columns	Data Type	Description
	staff_id	integer	Unique ID given to each employee.
	first_name	character varying (45)	First name of the customer.
	last_name	character varying (45)	Last name of the customer.
	email	character varying (50)	Customer's email address.
	address_id	smallint	Unique ID given to each staff address.
	active	boolean	Active status of the customer (true or false).
	username	character varying (16)	Employee's username.
	password	character varying (40)	Employee's password.





	last_update	Timestamp without time zone	Timestamp with the information of the last update to the table.
	picture	Bytea	Image of the employee.
Links to			
Table name		Join	
address		staff.address_id = address.address_id	
Links from			
store		staff.staff_id = store.manager_staff_id	
payment		staff.staff_id = payment.staff_id	
rental		staff.staff_id = rental.staff_id	

Dimension table: actor


	Columns	Data Type	Description
	actor_id	smallint	Unique ID given to each actor.
	first_name	character varying (45)	First name of actor.
	last_name	character varying (45)	Last name of actor.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
Links from			
actor		actor.actor_id = film_actor.actor_id	

Dimension table: film


	Columns	Data Type	Description
	film_id	integer	Unique ID given to each film.
	title	character varying (50)	Full title of the film.
	description	text	Short summary of the film.
	Release_year	Integer	Year in which the film came out.
	language_id	smallint	Unique ID given to each language.
	rental_duration	smallint	Number of days of the rental.
	rental_rate	numeric (4,2)	Rental cost in USD.


	length	smallint	Length of film in minutes.
	replacement_cost	numeric (5,2)	Cost to repair lost/damaged film in USD.
	rating	mpaa_rating	Rating of the film by the MPAA.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
	special_features	text	Special features that come with the film.
	fulltext	tvsector	Text search vectors for full film text searches.
Links to			
Table name		Join	
language		film.language_id = language.language_id	
Links from			
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	

Dimension table: category


	Columns	Data Type	Description
	category_id	smallint	Unique ID given to each film category.
	name	character varying (25)	Category name.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
Links from			
Table		Join	
film_category		category.category_id = film_category.category_id	

Dimension table: address



	Columns	Data Type	Description
	address_id	integer	Unique ID for each address.
	address	character varying (50)	Street address.
	address_2	character varying (50)	Second line of address.

	city_id	smallint	Unique ID for each city.
	district	character varying (20)	District where the address is located.
	postal_code	character varying (10)	Postal code of where the address is located.
	phone	character varying (20)	Telephone number.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
Links to			
Table name		Join	
city		address.city_id = city.city_id	
Links from			
customer		address.address_id = customer.address_id	
staff		address.address_id = staff.address_id	
store		address.address_id = store.address_id	

#### Dimension table: language


	Columns	Data Type	Description
	language_id	smallint	Unique ID given to each language.
	name	character	Name of the language.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
Links from			
Table		Join	
film		language.language_id = film.language_id	

#### Dimension table: city

	Columns	Data Type	Description
	city_id	smallint	Unique ID for each city.
	city	character varying (50)	District where the address is located.
	country_id	smallint	Unique ID given to each country.

	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
Links to			
Table name		Join	
country		city.country_id = country.country_id	
Links from			
address		city.city_id = address.city_id	

Dimension table: country

	Columns	Data Type	Description
	country_id	smallint	Unique ID given to each country.
	country	character varying (50)	Name of the country.
	last_update	timestamp without time zone	Timestamp with the information of the last update to the table.
Links from			
city		country.country_id = city.country_id	