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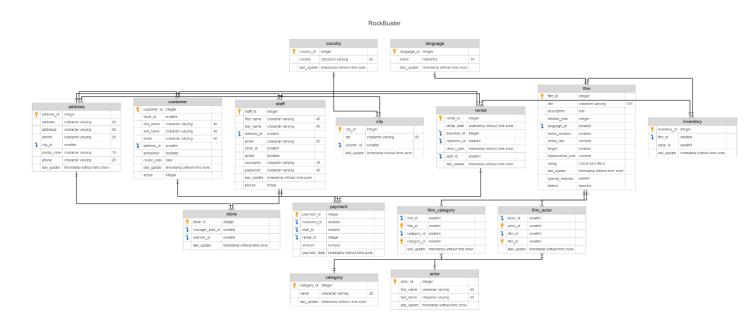
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1. Rockbuster

Rockbuster Stealth LLC is a movie rental company that used to have stores around the world. Facing stiff competition from streaming services such as Netflix and Amazon Prime, the Rockbuster Stealth management team is planning to use its existing movie licenses to launch an online video rental service to stay competitive. The Rockbuster database contains information about Rockbuster's film inventory, customers, and payments, among other things.

2. Entity Relationship Diagram



3. Tables

4. Fact Tables

4.1. Rental:

	Column Name	Data Type	Description
-	rental_id	int (Primary Key)	Unique ID for the rental
	rental_date	timestamp	Date the rental occurred
FK	inventory_id	int (Foreign Key)	Inventory record for the rented item

FK	customer_id	int (Foreign Key)	Customer who rented the item
	return_date	timestamp	Date the item was returned
FK	staff_id	int (Foreign Key)	Staff member involved in the rental
	last_update	timestamp	Date the rental record was last updated

		Table	Join
		inventory	Rental.inventory_id = Inventory.inventory_id
Links To	>	staff	Rental.staff_id = Staff.staff_id
		customer	Rental.customer_id = Customer.customer_id
Linked From	+	payment	Rental.rental_id = payment.rental_id

		Column	Description
Unique Keys	•	rental_id	Primary key for the rental

4.2. Payment:

	Column Name	Data Type	Description
	payment_id	int (Primary Key)	Unique ID for the payment
FK	customer_id	int (Foreign Key)	Customer making the payment
FK	staff_id	int (Foreign Key)	Staff member handling the payment
FK	rental_id	int (Foreign Key)	Rental the payment is associated with
	amount	numeric	Amount paid for the rental
	payment_date	timestamp	Date the payment occurred

		Table	Join
	>	rental	Payment.rental_id = Rental.rental_id
Links To		staff	Payment.staff_id = Staff.staff_id
		customer	Payment.customer_id = Customer.customer_id
Linked From	~		

		Column	Description
Unique Keys	•	payment_id	Primary key for the payment table

5. Dimension Tables

5.1. Film:

	Column Name	Data Type	<u>Description</u>
•	film id	int (Primary Key)	Unique ID for the film
	<u>title</u>	<u>varchar</u>	Title of the film
	description	<u>text</u>	Summary of the film's plot
	release year	<u>int</u>	Year the film was released
FK	language id	int (Foreign Key)	Language of the film
	rental duration	<u>int</u>	Rental period length for the film
	rental rate	numeric	Rental price for the film
	<u>length</u>	<u>int</u>	Length of the film in minutes
	replacement cost	numeric	Cost to replace the film
	rating	<u>varchar</u>	MPAA rating
	last update	timestamp	Date the film record was last updated

		Table	Join
		Film_actor	Film.film_id = Film_actor.film_id
Linked From		Film_category	Film.film_id = Film_category.film_id
		Inventory	Film.film_id = Inventory.film_id
Links To	>	Language	Film.language_id = Language.language_id

		Column	Description
Unique Keys	•	film_id	Primary key for the film table

5.2. Customer:

	<u>Column</u> <u>Name</u>	<u>Data Type</u>	<u>Description</u>
	customer id	int (Primary Key)	<u>Unique ID for the customer</u>
	store id	<u>int</u>	<u>Customer's local store</u>
	first name	<u>varchar</u>	Customer's first name
	last name	<u>varchar</u>	Customer's last name
	email	<u>varchar</u>	Customer's email address
FK	address id	int (Foreign Key)	<u>Customer's address</u>
	<u>active</u>	<u>int</u>	Whether the customer account is active
	create date	<u>date</u>	Date the customer account was created
	last update	timestamp	Date the customer record was last updated

		Table	Join
Linked		Rental	Rental.customer_id = Customer.customer_id
From	+	Payment	Payment.customer_id = Customer.customer_id
Links To	>	Address	Address.address_id = Customer.address_id

		Column	Description
Unique Keys	•	customer_id	Primary key for the film table

5.3. Staff:

	<u>Column</u> <u>Name</u>	Data Type	<u>Description</u>
	staff id	int (Primary Key)	Unique ID for the staff member
	first name	<u>varchar</u>	Staff member's first name
	last name	<u>varchar</u>	Staff member's last name
FK	address id	int (Foreign Key)	Staff member's address
	email	<u>varchar</u>	Staff member's email address
	store id	<u>int</u>	Store where the staff member works
	<u>active</u>	<u>boolean</u>	Whether the staff account is active
	username	<u>varchar</u>	Staff member's login username
	password	<u>varchar</u>	Hashed password for the staff account
	last update	timestamp	Date the staff record was last updated

		Table	Join
Linked		Rental	Rental.staff_id = Staff.staff _id
From	+	Payment	Payment.staff_id = Staff.staff_id
Links To	>	Address	Staff.address_id = Address.address_id

		Column	Description
Unique Keys		staff_id	Primary key for the staff table

5.4. Actor:

	<u>Column</u> <u>Name</u>	<u>Data Type</u>	<u>Description</u>
-	actor_id	int (Primary Key)	Unique ID for the actor
	first name	<u>varchar</u>	Actor's first name
	last name	<u>varchar</u>	Actor's last name
	last update	timestamp	Date the actor record was last updated

		Table	Join
Linked From	+	Film_actor	Film_actor.actor_id = Actor.actor_id
Links To	>		

		Column	Description
Unique Keys	-	actor_id	Primary key for the Actor table

5.5. Address:

	<u>Column</u> <u>Name</u>	Data Type	<u>Description</u>
	address id	int (Primary Key)	Unique ID for the address
	<u>address</u>	varchar	First line of the address
	address2	varchar	Second line of the address
	<u>district</u>	varchar	Neighborhood, district, etc.
FK	<u>city id</u>	int (Foreign Key)	City the address is located in
	postal code	varchar	ZIP or postal code
	<u>phone</u>	varchar	Phone number for the address
	last update	timestamp	Date the address record was last updated

		Table	Join
		Store	Address.address_id = Store.address_id
Linked From		Film_category	Film.film_id = Film_category.film_id
		Staff	Address.address_id = Staff.address_id
Links To	>	Customer	Address.address_id = Customer.address_id

		Column	Description
Unique Keys		address_id	Primary key for the Address table

5.6. City:

	<u>Column</u>	Data Type	<u>Description</u>
	<u>Name</u>		
	city id	int (Primary Key)	Unique ID for the city
	<u>city</u>	varchar	Name of the city
FK	country id	int (Foreign Key)	Country the city is located in
	last update	timestamp	Date the city record was last updated

		Table	Join
Linked From	+	Address	City.city_id = Address.city_id
Links To	>	Country	City.country_id = Country.country_id

		Column	Description
Unique Keys	•	city_id	Primary key for the city table

5.7. Country:

	<u>Column</u> <u>Name</u>	Data Type	<u>Description</u>
	country id	int (Primary Key)	Unique ID for the country
	country	varchar	Name of the country
	last update	timestamp	Date the country record was last updated

		Table	Join
Linked From	+	City	Country.country_id = City.country_id
Links To	>		

		Column	Description
Unique Keys	-	country_id	Primary key for the country table

5.8. Category:

	<u>Column</u>	Data Type	<u>Description</u>
	<u>Name</u>		
	category id	int (Primary Key)	Unique ID for the category
	name	<u>varchar</u>	Name of the category
	last update	timestamp	Date the category record was last updated

		Table	Join
Linked From	4	Film_Category	Category.category_id = Film_category.category_id
Links To	>		
		Column	Description
Unique Keys		category_id	Primary key for the Category table

5.9. Language:

	<u>Column</u>	Data Type	<u>Description</u>
	<u>Name</u>		
	language id	int (Primary Key)	Unique ID for the language
	<u>name</u>	<u>char</u>	Name of the language
	last_update	timestamp	Date the language record was last updated

		Table	Join
Linked From	4	Film	Language.language_id = Film.language_id
Links To	>		

		Column	Description
Unique Keys	-	language_id	Primary key for the language table

5.10. Inventory:

	<u>Column</u> <u>Name</u>	Data Type	<u>Description</u>
()	<u>inventory id</u>	int (Primary Key)	Unique ID for the inventory item
Fk	film id	int (Foreign Key)	Film associated with this inventory item
Fk	store id	int (Foreign Key)	Store inventory item is located at
	last update	timestamp	Date the inventory record was last updated

		Table	Join
Linked From	+	Rental	Inventory.inventory_id = Rental.inventory_id
Links To		Film	Film_actor.film_id = Film.film_id
	>	Store	Inventory.store_id = Store.store_id

		Column	Description
Unique Keys	-	inventory_id	Primary key for the inventory table

5.11. Film_actor:

	<u>Column</u> <u>Name</u>	Data Type	<u>Description</u>
FK	actor id	int (Foreign Key)	Actor associated with the film
FK	film id	int (Foreign Key)	Film the actor is associated with
	last update	timestamp	Date the film actor record was last updated

		Table	Join
Linked From	+		
Links To		Actor	Film_actor.actor_id = Actor.actor_id
LITIKS TO	>	Film	Film_actor.film_id = Film.film_id

	Column	Description
Unique Keys		

5.12. Film_category:

	<u>Column</u> <u>Name</u>	<u>Data Type</u>	<u>Description</u>
FK	film id	int (Foreign Key)	Film associated with the category
FK	category id	int (Foreign Key)	Category associated with the film
	last update	timestamp	Date the film category record was last updated

		Table	Join
Linked From	+		
Links To		Category	Film_category.category_id = Category.category_id
	>	Film	Film_category.film_id = Film.film_id

	Column	Description
Unique Keys		

5.13. Store:

	Column Name	Data Type	<u>Description</u>
•	store id	int (Primary Key)	Unique ID for the store
FK	manager_staff_id	int (Foreign Key)	Staff member who is the store manager
FK	address id	int (Foreign Key)	Address of the store
	last update	timestamp	Date the store record was last updated

		Table	Join
Linked From	+	Inventory	Inventory.store_id = Store.store_id
Links To		Staff	Store.manager_staff_id = Staff.staff_id
	>	Address	Store.address_id = Address.address_id

		Column	Description
Unique Keys		store_id	Primary key for the store table

6. Legends

•	Primary Key
FK	Foreign Key
>	Links to
+	Linked from