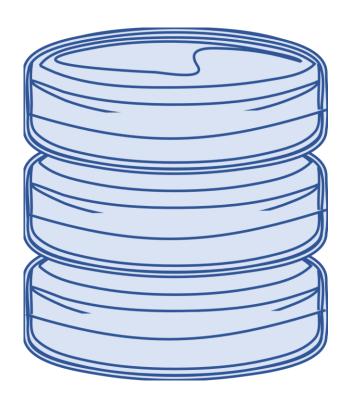
# Rockbuster Stealth Data Dictionary

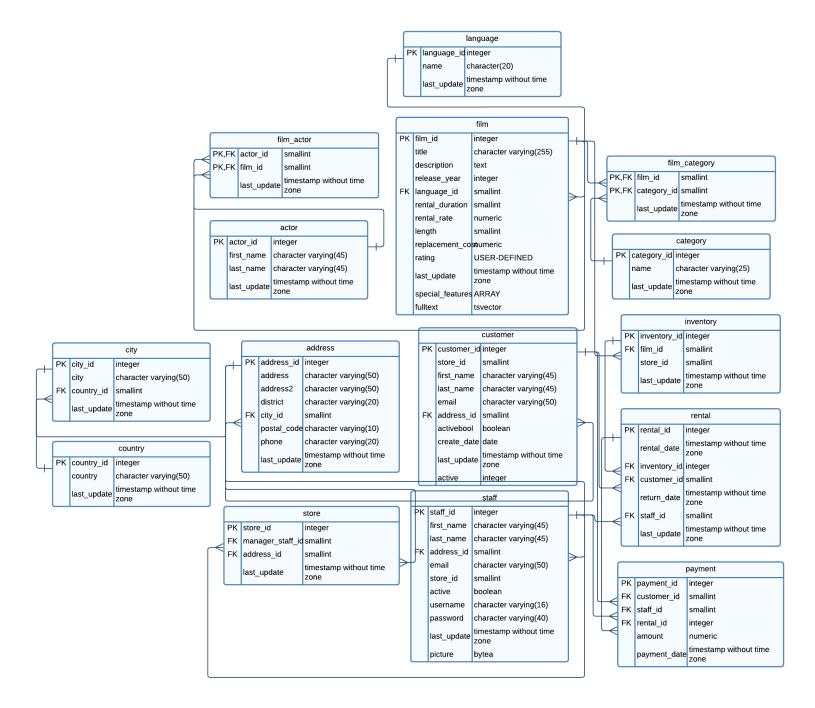
January 2023



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# 1.1 Entity Relationship Diagram



# 2.1 Legend



Primary key



Foreign key

# 3.1 Tables

#### 3.11 Table: Rental

Rental ID number, date, staff in charge of rental, and other information for each rental transaction.

	Name	Data Type	Nullable	Description
†	rental_id	Integer		Primary Key (Surrogate Key): Rental id number
	rental_date	Timestamp without time zone		Date and time of each rental was initiated
(%) 	inventory_id	Integer		Foreign key to inventory table: Inventory id number
	customer_id	Small int (small integer)		Foreign key to customer table: Customer id number
	return_date	Timestamp without time zone	N	Date of rental return
\$\$\$ 	staff_id	Small int		Foreign key to staff table: Staff id number who performed return
	last_update	Timestamp without time zone		Date and time of last table update

Table	Join	Description
inventory	rental.inventory_id = inventory.inventory_id	Foreign key constraint in rental.inventory_id referencing primary key in inventory.inventory_id.
customer	rental.customer_id = customer.customer_id	Foreign key constraint in rental.customer_id referencing primary key in customer_customer_id.
staff	rental.staff_id = staff.staff_id	Foreign key constraint in rental.staff_id referencing primary key in staff_staff_id.

# Links from

Table	Join	Description
payment	rental.rental_id =	Foreign key constraint in payment.rental_id referencing primary key
	payment.rental_id	in rental.rental_id.

# 3.12 Table: Inventory

A record of each item in the inventory and its location.

	Name	Data Type	Nullable	Description
†	inventory_id	Integer		Primary Key (Surrogate Key): Inventory id number
© 3	film_id	Small int		Foreign key to <i>film</i> table: Film id number
	store_id	Small int		Foreign key to film table: Store id number
	last_update	Timestamp without time zone		Date and time of last table update

Table	Join	Description
film	inventory.film_id =	Foreign key constraint in inventory.film_id referencing primary
	film.film_id	key in film.film_id.

store	inventory.store_id =	Foreign key constraint in inventory.store_id referencing primary
	store.store_id	key in store.store_id.

Table	Join	Description
rental	inventory.inventory_id =	Foreign key constraint in rental.inventory_id referencing primary
	rental.inventory_id	key in inventory.inventory_id.

# 3.13 Table: Payment

A record of each customer payment and corresponding details.

	Name	Data Type	Nullable	Description
*	payment_id	Integer		Primary Key (Surrogate Key): Payment ID number
	customer_id	Small int		Foreign key to customer table: Customer ID number
600	staff_id	Small int		<b>Foreign key</b> to <i>staff</i> table: Staff ID number of staff member who handled rental and payment
	rental_id	Integer		Foreign key to rental table: Rental ID number
	amount	Numeric(5,2)		Amount of purchase in a currency
	payment_date	Timestamp without time zone		Date and time of payment

Table	Join	Description
customer	payment.customer_id = customer.customer_id	Foreign key constraint in payment.customer_id referencing primary key in customer.customer_id.
staff	payment.staff_id = staff.staff_id	Foreign key constraint in payment.staff_id referencing primary key in staff.staff_id.
rental	payment.rental_id = rental.rental_id	Foreign key constraint in payment.rental_id referencing primary key in rental.rental_id.

3.14 Table: Staff
A record of each staff member and corresponding details.

	Name	Data Type	Nullable	Description
†	staff_id	Integer		Primary Key (Surrogate Key): Staff ID number
	first_name	Character varying(45)		Staff member first name
	last_name	Character varying(45)		Staff member last name
	address_id	Small int		Foreign key to address table: Address ID of store location
	email	Character varying(50)	N	Email of staff member
	store_id	Small int		<b>Foreign key</b> to <i>store</i> table: Store ID number where staff member is located
	active_boolean	Boolean		True or false in regard to if staff is currently active or employed by Rockbuster
	username	Character varying(16)		Username staff member uses to access system
	password	Character varying(40)	N	Password staff member uses to access system
	last_update	Time stamp without time zone		Date and time of last table update
	picture	bytes	N	Staff member image or head shot

Table	Join	Description
address	staff.address_id = address.address_id	Foreign key constraint in staff.address_id referencing primary key in address.address_id.
store	staff.store_id = store.store_id	Foreign key constraint in staff.store_id referencing primary key in store.store_id.

Table	Join	Description
payment	staff.staff_id =	Foreign key constraint in payment.staff_id referencing primary
	payment.staff_id	key in staff.staff_id.

#### 3.15 Table: Film

A record of each film that Rockbuster has offered in the past or present along with its details.

	Name	Data Type	Nullable	Description
•	film_id	Small int		Primary Key (Surrogate Key): Film id number
	title	Small int		Title or movie
	description	Timestamp without time zone	N	Movie or film description
	release_year	integer	N	Year of release
	language_id	Character varying(255)		Foreign Key to language table. Language id of language movie is in
	rental_duration	text		Duration of rental in days
	rental_rate	Year		Rental rate in a currency
	length	Small int	N	Length of film in minutes
	replacement_cost	Small int		Cost to replace rental if lost or missing in a currency
	rating	Numeric(4,2)	N	Movie or film rating
	last_update	Small int		Date and time of last table update
	special_features	Numberic(5,2)	N	Special features of movie
	fulltext	Mpaa_rating		Text of movie

Table	Join	Description
language	film.language_id =	Foreign key constraint in film.language_id referencing primary
	language.language_id	key in language.language_id.

Table	Join	Description
inventory	film.film_id = inventory.film_id	Foreign key constraint in inventory.film_id referencing primary key in film_id.
film_category	film.film_id = film_category.film_id	Foreign key constraint in film_category.film_id referencing primary key in film.film_id.
film_actor	film.film_id = film_actor.film_id	Foreign key constraint in film_actor.film_id referencing primary key in film_film_id.

# 3.16 Table: Language

A record of language identification numbers and their corresponding language name.

				T T
	Name	Data Type	Nullable	Description
•	language_id	Integer		Primary Key (Surrogate Key): Language ID number
	name	Character varying(20)		Language name
	last_update	Time stamp without time zone		Date and time of last table update

#### Links from

Table	Join	Description
film	language.language_id =	Foreign key constraint in film.language_id referencing primary
	film.language_id	key in language.language_id.

# 3.17 Table: Film Category

A record of film identification numbers of each movie and the corresponding category identification number representing the genre.

		Name	Data Type	Nullable	Description
•	<b>†</b>	film_id	Small int		Primary Key (Surrogate Key): Film ID number
ę		category_id	Small int		Foreign Key to category table. Film category ID number

last_update	Timestamp	Date and time of last table update
	without time zone	

Table	Join	Description
category	film_category.category_id = category.category_id	Foreign key constraint in film_category.category_id referencing primary key in category.category_id.
film	film_category.film_id = film.film_d	Foreign key constraint in film.film_id referencing primary key in film_category.film_id. Also acts as a primary key and foreign key in both film and film_category tables.

#### Links from

Table	Join	Description
inventory	film_category.film_id = inventory.film_id	Foreign key constraint in inventory.film_id referencing primary key in film_id.
film_actor	film_category.film_id = film_actory.film_id	Foreign key constraint in film_actor.film_id referencing primary key in film_id.
film	film_category.film_id = film.film_id.	Foreign key constraint in film.film_id referencing primary key film_category.film_id. Together with category_id, makes up primary key in film_category table.
category	film_category.category_id = category.category_id	Foreign key constraint in category.category_id referencing primary key film_category.category_id. Together with film_id, makes up primary key in film_category table.

# 3.18 Table: Film Actor

A record of actors along with corresponding film identification numbers, allowing user to make connections to films each actor starred in and to view the actors in a film.

	Name	Data Type	Nullable	Description
ţ	actor_id	Small int		Primary Key (Surrogate Key): Actor ID number
	film_id	Small int		Foreign Key to film table. Film ID number
	last_update	Time stamp without time zone		Date and time of last table update

Table	Join	Description
actor	film_actor.actor_id = actor.actor_id	Foreign key constraint in film_actor.actor_id referencing primary key in actor.actor_id.
film	film_category.film_id = film.film_d	Foreign key constraint in film_actor.film_id referencing primary key in film.film_id. Also acts as a primary key and foreign key in both film_actor and film tables.

# Links from

Table	Join	Description
actor	film_actor.actor_id = actor.actor_id	Foreign key constraint in actor.actor_id referencing primary key in film_actor.actor_id. Together with film_id, makes up primary key in film_actor table.
film	film_actor_film_id = film.film_id	Foreign key constraint in film.film_id referencing primary key in film. film_id. Together with actor_id, makes up primary key in film_actor table.

#### 3.19 Table: Actor

A record of actor identification numbers and their corresponding names.

	Name	Data Type	Nullable	Description
•	Actor_id	Integer		Primary Key (Surrogate Key): Actor ID number
	First_name	Character varying(45)		Actor first name
	Last_name	Character varying(45)		Actor last name
	Last_update	Time stamp without time zone		Date and time of last table update

# Links from

Table	Join	Description
film_actor	actor.actor_id = film_actor.actor_id	Alone, actor_id acts as a foreign key constraint in film_actor.actor_id referencing primary key in actor.actor_id.  Makes up part of primary key together with film_id in film_actor table.

# 3.20 Table: Category

A record of genres that help link films to actual genres to which they belong.

	Name	Data Type	Nullable	Description
*	category_id	Integer		Primary Key (Surrogate Key): Rental category ID number
	name	Character varying(25)		Name of rental category
	last_update	Timestamp without time zone		Date and time of last table update

#### Links from

Table	Join	Description
film_category	category.category_id =	Alone, category_id acts as a foreign key constraint in
	film_category.category_id	film_category.category_id referencing primary key in
		category.category_id. Makes up part of primary key together
		with film_id in film_category table.

#### 3.21 Table: Customer

A record of details of each Rockbuster customer, including name, location, and contact information.

	Name	Data Type	Nullable	Description
•	customer_id	Integer		Primary Key (Surrogate Key): Customer id number
63	store_id	Small int		Foreign Key to store table. Store id number
	first_name	Character varying(45)		Customer first name
	last_name	Character varying(45)		Customer last name
	email	Character varying(50)	N	Customer email address
\$\tilde{\circ}\$	address_id	Small_int		<b>Foreign Key</b> to <i>address</i> table. Id number of customer address

activebool	Boolean		True or false in regard to if customer is currently active
			in system
create_date	Date		Date customer record was created
last update	Timestamp without time zone	Ν	Date and time of last table update
active	Integer	Ν	Related to activebool column with 1 if active customer, or if not active

Table	Join	Description
store	customer.store_id = store.store_id	Foreign key constraint in customer.store_id referencing primary key in store.store_id.
address	customer.address_id = address_address_id	Foreign key constraint in customer.address_id referencing primary key in address.address_id.

#### Links from

Table	Join	Description
rental	<pre>customer.customer_id = rental.customer_id</pre>	Foreign key constraint in rental.customer_id referencing primary key in customer.customer_id.
payment	customer.customer_id = payment.customer_id	Foreign key constraint in payment.customer_id referencing primary key in payment.customer_id.

### 3.22 Table: Store

A record of all Rockbuster stores, the manager of each store, and its address.

	Name	Data Type	Nullable	Description
*	store_id	Integer		Primary Key (Surrogate Key): Store id number
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	manager_staff_id	Small int		Unique identification number of the store manager. It can be a <b>foreign key</b> to the staff table.
	address_id	Small int		Foreign Key to address table. ID number of location/address
	last_update	Timestamp without time zone		Date and time of last table update

Table	Join	Description
staff	store.manager_staff_id = staff.staff_id	Foreign key constraint in store.manager_staff_id referencing primary key in staff.staff_id.
address	store_address_id = address.address_id	Foreign key constraint in customer.address_id referencing primary key in address.address_id.

# Links from

Table	Join	Description
inventory	store.store_id = inventory.store_id	Foreign key constraint in inventory.store_id referencing primary key in store.store_id.
staff	store.store_id = staff.store_id	Foreign key constraint in staff.store_id referencing primary key in store.store_id.

#### 3.23 Table: Address

A record of addresses of staff, customers, and business locations. Connects to staff, customer, and store tables.

	Name	Data Type	Nullable	Description
•	address_id	Integer		<b>Primary Key (Surrogate Key):</b> Address ID number (connected to several tables like staff or customers)
	address	Character varying(50)		Physical address associated with address id
	address2	Character varying(50)	Ν	Second physical address associated with address id
	district	Character varying(30)		Region or district associated with address, such as US state or country
<b>©</b>	city_id	Small int		Foreign Key to city table. City id number
	postal_code	Character varying(10)	Ν	Zip code
	phone	Character varying(20)		Phone number of address
	last_update	Time stamp without time zone		Date and time of last table update

Table	Join	Description
city	address.city_id =	Foreign key constraint in store.manager_staff_id referencing
	city.city_id	primary key in staff.staff_id.

#### Links from

Table	Join	Description
customer	address.address_id = customer.address_id	Foreign key constraint in customer.address_id referencing primary key in address.address_id.
staff	address.address_id = staff.address_id	Foreign key constraint in staff.address_id referencing primary key in address.address_id.
store	address.address_id = store.address_id	Foreign key constraint in store_address_id referencing primary key in address.address_id.

# 3.24 Table: City

A record of cities that are a part of the addresses of staff, customers, and business locations. Connects to the address table.

	Name	Data Type	Nullable	Description
†	city_id	Integer		Primary Key (Surrogate Key): City ID number
	city	Character varying(50)		City name
	country_id	Small int		<b>Foreign Key</b> to <i>country</i> table. Country ID number where city is located
	last_update	Time stamp without time zone		Date and time of last table update

Table	Join	Description
country	city.country_id =	Foreign key constraint in country.city_id referencing primary key
	country.country_id	in city.city_id.

Table	Join	Description
address	city.city_id =	Foreign key constraint in address.city_id referencing primary key
	address.city_id	in city.city_id.

# 3.25 Table: Country

A record of countries that are a part of the addresses of staff, customers, and business locations. Connects to the city table.

	Name	Data Type	Nullable	Description
†	country_id	Integer		Primary Key (Surrogate Key): Country ID number
	country	Character varying(50)		Country name
	last_update	Time stamp without time zone		Date and time of last table update

#### Links from

Table	Join	Description
city	country.city_id =	Foreign key constraint in city.country_id referencing primary key
	city.country_id	in country.country_id.

4.1 Primary and Foreign Key Matrix

	Rent	Inventor	Payment	Staff	Film	Languag	Film	Film actor	Actor	Categor	Custome	Store	Addres	City	Country
	al	у				е	category			у	r		s		
Rental	rent al_id	inventory _id		staff_ id							customer _id				
Inventor y		inventory _id			film_i d							store_ id			
Payment	rent al_id		payment _id	staff_ id							customer _id				
Staff				staff_ id								store_ id	address _id		
Film					film_i d	language _id									
Languag e						language _id									
Film category					film_i d		film_id+ category _id			category _id					
Film actor					film_i d			actor_id+fil m_id	actor_ id						
Actor									actor_ id						
Categor y										category _id					
Custom er											customer _id	store_ id	address _id		
Store				Mana ger_s taff_i d								store_ id	address _id		
Address				city_i d									address _id		
City														city_i d	country_ id
Country															country_ id