

19.12.2019 ROCKBUSTER STEALTH

DATA ANALYTICS PROJECT: COMPANY STRATEGY 2020

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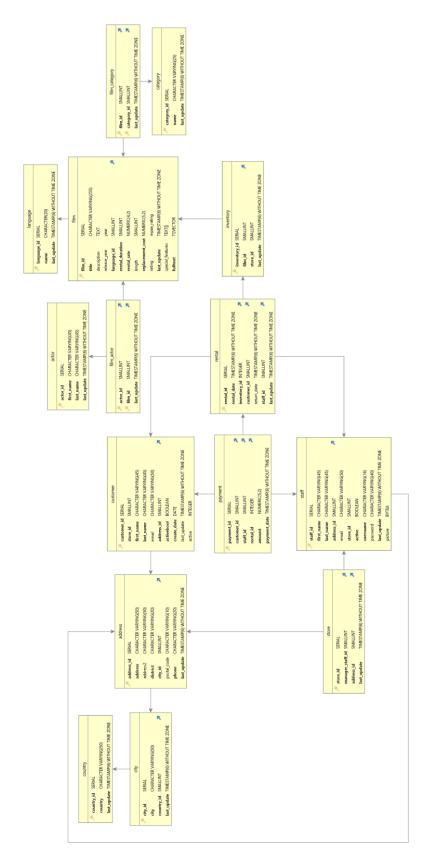
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1. Entity Relationship Diagram



2. Fact Tables

2.1 rental

Linked to:	Column	Data Type	Description
Customer Payment Staff Inventory	rental_id	SERIAL	Primary Key for a persons rental
	rental_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the film was rented
	inventory_id	INTEGER	Foreign Key to inventory
	customer_id	SMALLINT	Foreign Key to customer
	return_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the film was returned
	staff_id	SMALLINT	Foreign Key to staff
	last_update	TIMESTAMP8&9 WITHOUT TIME ZONE	Date and time the record was last updated

2.2 inventory

Linked to:	Column	Data Type	Description
Rental Film	inventory_id	SERIAL	Primary Key for the films inventory
	film_id	SMALLINT	Foreign Key to film
	store_id	SMALLINT	Foreign Key to store
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated

2.3 payment

Linked to:	Column	Data Type	Description
Customer Rental	payment_id	SERIAL	Primary Key for a payment transaction
Staff	customer_id	SMALLINT	Foreign Key to customer
	staff_id	SMALLINT	Foreign Key to staff
	rental_id	INTEGER	Foreign Key to rental
	amount	NUMERIC(5,2)	Amount of the rental fee
	payment_date	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the payment transaction was executed

3. Dimension Tables

3.1 film

Linked to	Column	Data Type	Description
Film_actor	film_id	SERIAL	Primary Key for a film
Language Film_category	title	CHARACTER VARYING(255)	Title of the film
Inventory	description	TEXT	Description of the film
	release_year	Year	Year the film was released
	language_id	SMALLINT	Foreign Key to language
	rental_duration	SMALLINT	Foreign Key to rental_duration
	rental_rate	NUMERIC(4,2)	Price for the film rental
	length	SMALLINT	Length of the film
	replacement_cost	NUMERIC(5,2)	Costs occurring for the customer if the film gets lost
	rating	mpaa_rating	Rating of the film rentals
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated
	special_features	TEXT[]	On-top (special) features of the film, e.g. behind the scenes
	fulltext	TVSECTOR	Buzzwords for the film search

3.2 film_category:

Linked to	Column	Data Type	Description
Category	film_id	SMALLINT	Foreign Key to film
Film	category_id	SMALLINT	Primary Key for film_category
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated

3.3 category:

Linked to	Column	Data Type	Description
Film_category	film_id	SMALLINT	Foreign Key to film
	category_id	SMALLINT	Foreign Key to category
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated

3.4 language:

Linked to	Column	Data Type	Description
film	language_id	SERIAL	Primary Key for language
	name	CHARACTER	Name of the language
	last_update	TIMESTAMP(6)	Date and time the record
		WITHOUT TIME ZONE	was last updated

3.5 actor:

Linked to	Column	Data Type	Description
Film_actor	actor_id	SERIAL	Primary Key for actor

first_name	CHARACTER VARYING(45)	First name of an actor
last_name	CHARACTER VARYING(45)	Last name of an actor
last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated

3.6 film_actor:

Linked to	Column	Data Type	Description
Film	actor_id	SMALLINT	Foreign Key to actor
Actor	film_id	SMALLINT	Foreign Key to film
	last_update	TIMESTAMP(6) WITHOUT	Date and time the record
		TIME ZONE	was last updated

3.7 customer:

Linked to	Column	Data Type	Description
Address Payment	customer_id	SERIAL	Primary Key for a customer
Rental	store_id	SMALLINT	Foreign Key to store
	first_name	CHARACTER VARYING(45)	A customers first name
	last_name	CHARACTER VARYING(45)	A customers last name
	email	CHARACTER VARYING(50)	A customers email address
	address_id	SMALLINT	Foreign Key to address
	activebool	BOOLEAN	Differentiation if a customer is an active customer or not
	create_date	DATE	Date of the customers record creation
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated
	active	INTEGER	Differentiation if a customer is currently online or not

3.8 address:

Linked to	Column	Data Type	Description
Store Customer	address_id	SERIAL	Primary Key for the customers address
City Staff	address	CHARACTER VARYING(50)	Address of the customer
	address2	CHARACTER VARYING(50)	Second field for the address of the customer
	district	CHARACTER VARYING(20)	District where the customer lives
	city_id	SMALLINT	Foreign Key to city
	postal_code	CHARACTER VARYING(10)	Postal code of the customers home address
	phone	CHARACTER VARYING(20)	Customers phone number

TIME ZONE was last updated	1	ast_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated
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3.9 city:

Linked to	Column	Data Type	Description
Country Address	city_id	SERIAL	Primary Key for the city
	city	CHARACTER	Name of the city
		VARYING(50)	
	country_id	SMALLINT	Foreign Key to country
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated

3.10 country:

Linked to	Column	Data Type	Description
City	country_id	SERIAL	Primary Key of a country
	country	CHARACTER VARYING(50)	Name of the country
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated

3.11 store:

Linked to	Column	Data Type	Description
Address Staff	store_id	SERIAL	Primary Key for the store
	manager_staff_id	SMALLINT	Foreign Key to manager_staff
	address_id	SMALLINT	Foreign Key to address
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated

3.12 staff:

Linked to	Column	Data Type	Description
Address Store Payment Rental	staff_id	SERIAL	Primary Key for the staff
	first_name	CHARACTER VARYING(45)	First name of the operating staff
	last_name	CHARACTER VARYING(45)	Last name of the operating staff
	address_id	SMALLINT	Foreign Key to address
	email	CHARACTER VARYING(50)	Email address of the staff
	store_id	SMALLINT	Foreign Key to store
	active	BOOLEAN	Differentiation if the staff is acive or not
	username	CHARACTER VARYING(16)	Username of the staff account
	password	CHARACTER VARYING(40)	Password of the staffs account
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Date and time the record was last updated
	picture	BYTEA	Picture of the staff