

Rockbuster Stealth

Data Dictionary

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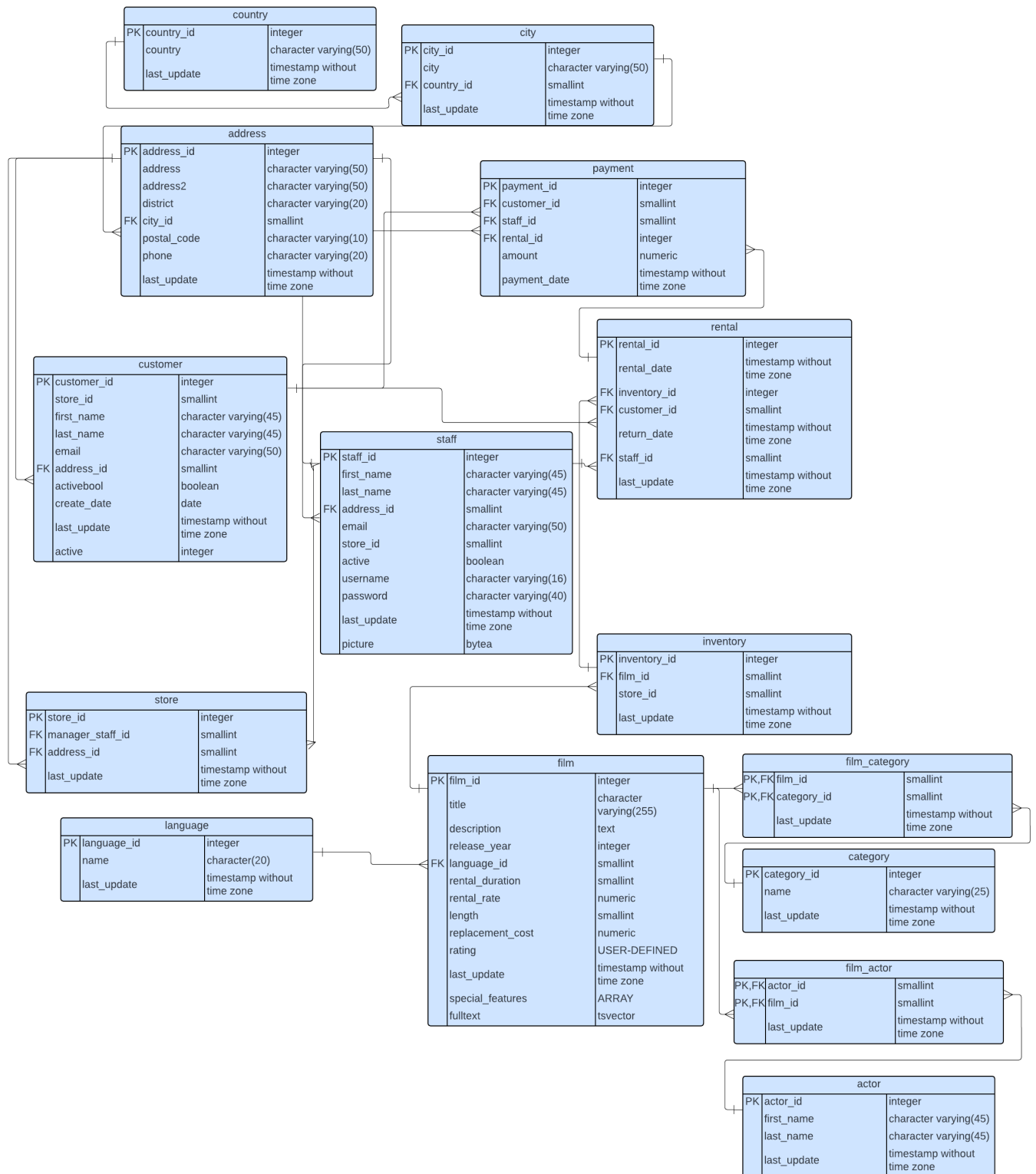
Data Immersion

Exercise 3.10

Table of Contents

- **Entity Relationship Diagram (ERD)**
- **Tables**
 - **Fact Tables**
 - Payment
 - Rental
 - **Dimension Tables**
 - Actor
 - Address
 - Category
 - City
 - Country
 - Customer
 - Film
 - Film_actor
 - Film_category
 - Inventory
 - Language
 - Staff
 - Store

Entity Relationship Diagram (ERD)



Tables

PK = Primary Key

FK = Foreign Key

Fact Tables

- **Rental**

Information about each individual rental transaction.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	payment	rental_id	INTEGER	Unique identifier for each individual rental transaction
		rental_date	TIMESTAMP	Date of rental transaction
FK	inventory	inventory_id	INTEGER	Unique identifier of inventory item rented
FK	customer	customer_id	SMALLINT	Unique identifier of customer
		return_date	TIMESTAMP	Date at which item is to be returned
FK	staff	staff_id	SMALLINT	Unique identifier of staff member performing transaction
		last_update	TIMESTAMP	Date and time record was last updated

- **Payment**

Information about each payment made to Rockbuster.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK		payment_id	INTEGER	Unique identifier for payment transaction

FK	customer	customer_id	SMALLINT	Unique identifier for customer
FK	staff	staff_id	SMALLINT	Unique identifier for staff processing payment
FK	rental	rental_id	INTEGER	Unique identifier for rental transaction
		amount	NUMERIC	Amount paid
		payment_date	TIMESTAMP	Date at which payment took place

Dimension Tables

- **Actor**

Information pertaining to actors featured in each film in the inventory.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	film_actor	actor_id	INTEGER	Unique identifier for actor
		first_name	VARCHAR(45)	First name of actor
		last_name	VARCHAR(45)	Last name of actor
		last_update	TIMESTAMP	Date and time of last update to record

- **Address**

Address information of customers and store locations.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	customer, store	address_id	INTEGER	Unique identifier for address
		address	VARCHAR(50)	Address (line 1)
		address2	VARCHAR(50)	Address (line 2)

		district	VARCHAR(20)	District for address
FK	city	city_id	SMALLINT	Unique identifier for city in an address
		postal_code	VARCHAR(10)	Postal code for address
		phone	VARCHAR(20)	Phone number associated with address
		last_update	TIMESTAMP	Date and time of last update to record

- **Category**

Categories of films in the Rockbuster inventory.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	film_category	category_id	INTEGER	Unique identifier for film category
		name	VARCHAR(25)	Name of film category (genre)
		last_update	TIMESTAMP	Time and date at which record was last updated

- **City**

Information related to cities contained in customer and store addresses.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	address	city_id	INTEGER	Unique identifier for city
		city	VARCHAR(50)	Name of city
FK	country	country_id	SMALLINT	Unique identifier for country in

				which city is located
		last_update	TIMESTAMP	Time and date of last update to record

- **Country**

Information related to countries contained in customer and store addresses.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	city	country_id	INTEGER	Unique identifier for country
		country	VARCHAR(50)	Name of country
		last_update	TIMESTAMP	Time and date of last update to record

- **Customer**

Information on individual Rockbuster customers.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	payment, rental	customer_id	INTEGER	Unique identifier for customer
FK	store	store_id	SMALLINT	Unique identifier for store
		first_name	VARCHAR(45)	First name of customer
		last_name	VARCHAR(45)	Last name of customer
		email	VARCHAR(50)	E-mail address of customer
FK	address	address_id	SMALLINT	Unique identifier for customer address
		activebool	BOOLEAN	Whether customer is

				active (true) or not (false)
		create_date	DATE	Date on which customer record was created
		last_update	TIMESTAMP	Date and time of last update to record
		active	INTEGER	Whether customer is active (1) or not (0)

- **Film**

Information pertaining to each film in the Rockbuster inventory.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	film_actor, film_category, inventory	film_id	INTEGER	Unique identifier for individual film
		title	VARCHAR(255)	Title of film
		description	TEXT	Description of film
		release_year	INTEGER	Year of film release
FK	language	language_id	SMALLINT	Unique identifier for film language
		rental_duration	SMALLINT	Number of days rented
		rental_rate	NUMERIC(4,2)	Price per day of rental
		length	SMALLINT	Length of film
		replacement_cost	NUMERIC(5,2)	Cost to replace film
		rating	MPAA_RATING	MPAA-assigned rating
		last_update	TIMESTAMP	Time and date of last update to record

		special_features	TEXT	Special features of film
		fulltext	TSVECTOR	Searchable text terms related to film

- **Film_actor**

Table connecting information about actors to information about films.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK, FK	actor	actor_id	SMALLINT	Unique identifier for actor
PK, FK	film, film_category	film_id	SMALLINT	Unique identifier for film
		last_update	TIMESTAMP	Time and date of last update to record

- **Film_category**

Table connecting information about genres to information about films.

Key Type	Connecting Table	Columns	Data Type	Description
PK, FK	film, film_actor	film_id	SMALLINT	Unique identifier for film
PK, FK	category	category_id	SMALLINT	Unique identifier for category
		last_update	TIMESTAMP	Time and date of last update to record

- **Inventory**

Information pertaining to the Rockbuster inventory.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	rental	inventory_id	INTEGER	Unique identifier for store inventory item

FK	film	film_id	SMALLINT	Unique identifier for film
FK	store	store_id	SMALLINT	Unique identifier for store
		last_update	TIMESTAMP	Time and date of last update to record

- **Language**

Information about languages of the films in the Rockbuster inventory.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	film	language_id	INTEGER	Unique identifier for language
		name	CHAR(20)	Language name
		last_update	TIMESTAMP	Time and date of last update to record

- **Staff**

Information about Rockbuster staff.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	rental, payment, store	staff_id	INTEGER	Unique identifier for staff member
		first_name	VARCHAR(45)	First name of staff member
		last_name	VARCHAR(45)	Last name of staff member
FK	address	address_id	SMALLINT	Unique identifier for address of staff member
		email	VARCHAR(50)	E-mail address of staff member
FK	store	store_id	SMALLINT	Unique identifier for store at which

				staff member works
		active	BOOLEAN	Active (true) or inactive (false)
		username	VARCHAR(16)	Username of staff member
		password	VARCHAR(40)	Password of staff member
		last_update	TIMESTAMP	Time and date of last update to record
		picture	BYTEA	Staff photo (binary data)

- **Store**

Information about Rockbuster store locations.

Key Type	Connecting Table(s)	Columns	Data Type	Description
PK	customer, inventory, staff	store_id	INTEGER	Unique identifier for store
FK	staff	manager_staff_id	SMALLINT	Unique identifier for staff member or manager
FK	address	address_id	SMALLINT	Unique identifier for store address
		last_update	TIMESTAMP	Date and time of last update to record