Answers 3.2

ERD:

Diagram

Description automatically generated

3. This is a snowflake schema. It has a fact table with multiple dimension tables branching off of it.

Fact Table

**Rental**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| rental\_id | SERIAL | # assigned to rental |
| rental\_date | TIMESTAMP(6) WITHOUT TIMEZONE | Date of rental |
| inventory\_id | INTEGER | # assigned to item in the table |
| customer\_id | SMALLINT | # assigned to customer |
| return\_date | TIMESTAMP(6) WITHOUT TIMEZONE | Date the rental was returned |
| staff\_id | SMALLINT | # assigned to the employee |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | Date the entry was last updated |

Dimension Tables

**Payment**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| payment\_id | SERIAL | # assigned to payment |
| customer\_id | SMALLINT | # assigned to customer |
| staff\_id | SMALLINT | # assigned to employee |
| rental\_id | INTEGER | # assigned to rental |
| amount | NUMERIC (5,2) | amount paid |
| Payment\_date | TIMESTAMP(6) WITHOUT TIMEZONE | Date paid for |

**Store**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| store\_id | SERIAL | # assigned to store |
| manager\_staff\_id | SMALLINT | # assigned to manager |
| address\_id | SMALLINT | # assigned to store address |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | Date entry was last updated |

**Film\_actor**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| actor\_id | SMALLINT | # assigned to actor |
| film\_id | SMALLINT | # assigned to film |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | Date entry was last updated |

**Inventory**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| inventory\_id | SERIAL | # assigned to inventory item |
| film\_id | SMALLINT | # assigned to film |
| store\_id | SMALLINT | # assigned to store |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | Date entry was last updated |

**Film\_category**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| film\_id | SMALLINT | # assigned to film |
| film\_category | SMALLINT | # assigned to genre/category |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | Date entry was last updated |

**Customer**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| customer\_id | SERIAL | # assigned to customer |
| store\_id | SMALLINT | # assigned to store |
| first\_name | CHARACTERVARYING(50) | first name of customer |
| last\_name | CHARACTERVARYING(45) | last name of customer |
| email | CHARACTERVARYING(50) | customer email |
| address\_id | SMALLINT | # assigned to customer’s address |
| activebool | BOOLEAN | Customer’s active status |
| create\_date | DATE | Date entry was created |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | Date entry was last updated |
| active | INTEGER | Customer’s active status |

**Staff**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| staff\_id | SERIAL | # assigned to employee |
| first\_name | CHARACTERVARYING(45) | first name of employee |
| last\_name | CHARACTERVARYING(45) | last name of employee |
| address\_id | SMALLINT | # assigned to employee address |
| email | CHARACTERVARYING(50) | employee email address |
| store\_id | SMALLINT | # assigned to store |
| active | BOOLEAN | employee active status |
| username | CHARACTERVARYING(16) | employee username |
| password | CHARACTERVARYING(40) | employee password |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | Date entry was last updated |
| picture | BYTEA | employee picture |

**Actor**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| actor\_id | SERIAL | # given to actor |
| first\_name | CHARACTERVARYING(45) | first name of actor |
| last\_name | CHARACTERVARYING(45) | last name of actor |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | Date entry was last updated |

**Film**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data Type** | **Description** |
| film\_id | SERIAL | # assigned to film |
| title | CHARACTERVARYING(45) | title of film |
| description | TEXT | description of film |
| release\_year | YEAR | year the film was released |
| language\_id | SMALLINT | # assigned to film language |
| rental\_duration | SMALLINT | length of film rental |
| rental\_rate | NUMERIC(4,2) | price of film |
| length | SMALLINT | length of film |
| replacement\_cost | NUMERIC(5,2) | cost to replace film |
| rating | MPAA\_RATING | film rating |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | date entry was last updated |
| special\_features | TEXT [] | special features included with film |
| fulltext | TSVECTOR | keywords associated with film |

**Category**

|  |  |  |
| --- | --- | --- |
| Column | Data Type | Description |
| language\_id | SERIAL | # assigned to language |
| name | CHARACTERVARYING(20) | name of language |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | date entry was last updated |

**Address**

|  |  |  |
| --- | --- | --- |
| Column | Data Type | Description |
| address\_id | SERIAL | # assigned to address |
| address | CHARACTERVARYING(50) | street address |
| address2 | CHARACTERVARYING(50) | supplementary street address |
| district | CHARACTERVARYING(20) | district |
| city\_id | SMALLINT | # assigned to city |
| postal\_code | CHARACTERVARYING(10) | postal code |
| phone | CHARACTERVARYING(20) | phone number |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | date entry was last updated |

**Language**

|  |  |  |
| --- | --- | --- |
| Column | Data Type | Description |
| language\_id | SERIAL | # assigned to language |
| name | CHARACTERVARYING(20) | language name |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | date entry was last updated |

**City**

|  |  |  |
| --- | --- | --- |
| Column | Data Type | Description |
| city\_id | SERIAL | # assigned to city |
| city | CHARACTERVARYING(20) | name of city |
| country\_id | SMALLINT | # assigned to country |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | date entry was last updated |

**Country**

|  |  |  |
| --- | --- | --- |
| Column | Data Type | Description |
| country\_id | SERIAL | # assigned to country |
| country | CHARACTERVARYING(50) | name of country |
| last\_update | TIMESTAMP(6) WITHOUT TIMEZONE | date entry was last updated |

 The SQL syntax for selecting a table is SELECT \* FROM table\_name. So SELECT \* FROM film would return the film table, for example.

4a. I would query “actor table,” for the actor name, “film\_actor table,” for the films that the actor is connected with, and “film table,” for the rates to rent each film.

4b. I would query “language table,” for the language name, and “film table,” for the language associated with each film.