Answer 3.2

Step 2: Extract the ERD

Diagram

Description automatically generated

Step 3: Create the first draft of a data dictionary

* Take a moment to examine your ERD. Does the Rockbuster database have a snowflake schema or a star schema? Write a brief explanation for your answer.
* List all the fact tables and all the dimension tables in the schema. For each table, list every column and its data type, and write a brief description of the column.

Answers:

1. The Rockbuster database has a snowflake schema. The fact table is still in the center surrounded by dimension tables but, unlike the star schema, they're surrounded by sub-dimension tables

The Fact Tables

Rental

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Descriptions |
| Return\_id | Serial | ID # provided for the individual rent event |
| Rental\_date | Timestamps(6) without time zone | Date in which the rent occurred |
| Inventory\_id | Integer | ID number of the product contained in the rental |
| Customer\_id | Smallint | ID number for the client |
| Return\_date | Timestamp(6) without time zone | Date which the return should occur. |
| Staff\_id | Smallint | ID number of the staff member the worked on the street |
| Last\_update | Timestamp(6) Without Time Zone | Last update on the event |

The Dimensions Tables

Payment

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Payment\_id | Serial | ID number for the transaction |
| Customer\_id | Smallint | ID number for the client |
| Staff\_id | Smallint | ID number for the staff member that worked on the event |
| Rental\_id | Integer | ID number provided for the individual rent event |
| Amount | Numeric (5,2) | Total monetary value of the payment |
| Payment\_date | Timestamp(6) without time zone | Date in which the payment was done |

Customer

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Customer\_id | Serial | ID number for the client |
| Store\_id | Smallint | ID number for the store |
| First\_name | Character Varying (45) | First name of the client |
| Last\_name | Character Varying (45) | Last name of the client |
| email | Character Varying (50) | Email address of the client |
| Address\_id | Smallint | ID number for the client address |
| activebool | Boolean | Client is active or inactive option |
| Create\_date | Date | Date which the customer was created on the system |
| Last\_update | Timestamp(6) without time zone | Last update on the event |
| Active | Integer | Client is active or inactive option |

Staff

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Staff\_id | Serial | ID number of the staff member that worked on the event |
| First\_name | Character Varying (45) | First name of the staff member |
| Last\_name | Character Varying (45) | Last name of the staff member |
| Address\_id | Smallint | Address of the staff member |
| email | Character Varying (50) | Email of the staff member |
| Store\_id | Smallint | ID number of the store |
| active | Boolean | Staff is active or inactive option |
| Username | Character Varying (16) | Staff login information |
| password | Character Varying (40) | Staff password information |
| Last\_update | Timestamps(6) without time zone | Last update on the event |
| picture | BYTEA | Staff is active or inactive option |

Film

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Descriptions |
| Film\_ID | Serial | ID number for the movie |
| title | Character Varying (25) | Text, title of the movie |
| description | Text | Text, description of the movie |
| Release\_year | year | Year in which the movie was released |
| Language\_ID | Smallint | Languages which the movie is available |
| Rental\_duration | Smallint | Duration of the rental for this movie |
| Rental\_rate | Numeric (4,2) | Cost of the rental |
| Length | Smallint | Length of the movie |
| Replacement\_cost | Numeric (5,2) | Cost of a replacement unity |
| rating | Mpaa\_rating | Rating of the movie according to the MPAA ruling |
| Last\_update | Timestamp(6) without time zone | Last update on the event |
| Special\_feature | text | Special features available in the movie |
| fulltext | Tsvector | Keywords, metatags |

Film\_category

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Descriptions |
| Film\_id | Serial | Id number for the movie |
| Category\_id | Smallint | Name of the movie category |
| Last\_update | Timestamp(6) without time zone | Last update on the event |

Category

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Category\_id | serial | ID number for the category of the movie |
| Name | Character Varying (25) | Name of the movie category |
| Last\_update | Timestamps(6) without time zone | Last update on the event |

Film\_actor

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Actor\_id | smallint | ID number fort the actor on the movie |
| Film\_id | smallint | ID number for the movie |
| Last\_update | Timestamp(6) without time zone | Last update on the event |

Inventory

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Inventory\_id | serial | ID number of the product contained in the rental |
| Film\_id | smallint | ID number for the movie |
| Store\_id | smallint | ID number of the store in which the event happened |
| Last\_update | Timestamp(6) without time zone | Last update on the event |

Actor

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Acto\_id | serial | ID number for the actor on the movie |
| First\_name | Character Varying (45) | Text, first name of the actor |
| Last\_name | Character Varying (45) | Text, last name of the actor |
| Last\_update | Timestamp(6) without time zone | Last update on the event |

Language

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Language\_id | Serial | ID fir the language of the movie |
| Name | Character (20) | Name of the language |
| Last\_update | Timestamp(6) without time zone | Last update on the event |

Store

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Store\_id | serial | ID number for the store |
| Manager\_staff\_id | smallint | ID number of the manager |
| Address\_id | smallint | Address of the store |
| Last\_update | Timestamp(6) without time zone | Last update on the event |

Address

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Address\_id | Serial | ID number for the address |
| Address | Character Varying (50) | Address part 1 |
| Address2 | Character Varying (50) | Address part2 |
| district | Character Varying (20) | District of the address |
| City\_id | smallint | City where the address is |
| Postal\_code | Character Varying (10) | Postal code of the address |
| phone | Character Varying (20) | Phone number registered with address |
| Last\_update | Timestamp(6) without time zone | Last update on the event |

City

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| City\_id | Character Varying (50) | ID number for the city |
| County\_id | smallint | ID number for the Country |
| Last\_update | Timestamp(6) without time zone | Last update on the event |

Country

|  |  |  |
| --- | --- | --- |
| Columns | Data Type | Description |
| Country\_id | Serial | ID number for the country |
| country | Character Varying (50) | Country name |
| Last\_update | Timestamp(6) without time zone | Last update on the event |

Step 4: Find Information

Now that your data dictionary and ERD are ready to use, your manager has given you a list of business questions to answer. Use your data dictionary to figure out which tables you'd need to answer the questions below:

* Which actors brought Rockbuster the most revenue?
* Would need to use the Actor table.
* What language are the majority of movies in the collection?
* Would need to use the Language table.