

# Data Analyst Assignment Guide

This guide outlines each assignment task, clarifying your objectives and the database relationships you'll need to navigate. Use the hints and table references to construct your queries.

## Before You Begin: Understanding the Goal

**Always start by reading and understanding the goal of each task.** Before writing any query, ask yourself:

- What information am I trying to retrieve?
- What does the final output need to look like?
- Which tables contain the data I need?
- How are these tables connected?

Taking time to think through these questions will help you approach each query with clarity and avoid unnecessary trial and error.

## 1. List Actors in "Academy Dinosaur"

**Goal:** List the full names (first and last) of all actors who appeared in the film titled "Academy Dinosaur".

**Relevant Tables:** `actor`, `film_actor`, `film`

**Hint:** Join `actor` → `film_actor` → `film`.

## 2. Films Per Category

**Goal:** For each film category, show how many films are in that category.

**Relevant Tables:** `film_category`, `category`

**Hint:** `film_category` links `film` and `category`.

## 3. Film Titles and Their Language

**Goal:** Show the titles of films along with the name of their language.

**Relevant Tables:** `film`, `language`

**Hint:** Join `film` → `language`.

## 4. Customers and Their Store's City

**Goal:** Find the customers' full names and the city of the store where they are registered.

**Relevant Tables:** `customer, store, address, city`

**Hint:** Join `customer → store → address → city`.

## 5. Rentals with Film Title and Customer Name

**Goal:** List all rentals (rental date, return date) along with the film title and the customer's name.

**Relevant Tables:** `rental, inventory, film, customer`

**Hint:** For title: `rental → inventory → film`

For name: `rental → customer`

## 6. Total Payment Amount Per Staff Member

**Goal:** Show each staff member's full name and the total amount of payments they have processed.

**Relevant Tables:** `payment, staff`

**Hint:** Join `payment → staff`.

## 7. Films That Are Not Rented

**Goal:** Identify films that are not rented (films in `film` that don't appear in `rental` via `inventory`).

**Relevant Tables:** `film, inventory, rental`

**Hint:** Use a left join or NOT EXISTS to detect films with no rentals.

## 8. Inventory Count Per Store

**Goal:** For each store, show the number of inventory items it holds (include store id and count).

**Relevant Tables:** `inventory, store`

**Hint:** `inventory → store`.

## 9. Inactive Customers and Their Rental Count

**Goal:** Show which customers are inactive (`active = FALSE`) and the number of rentals they made (if any).

**Relevant Tables:** `customer, rental`

**Hint:** Join `customer → rental`, group by customer.

## 10. Top 5 Actors by Film Count

**Goal:** List the top 5 actors by number of films they've appeared in (show actor full name and count).

**Relevant Tables:** actor, film\_actor, film

**Hint:** Join actor → film\_actor → film, then group and rank.

### General Tips

- **Understand the goal first:** Read each task carefully and visualize the expected output.
- **Map relationships:** Use the hints to understand how tables connect.
- **Group and filter:** For counts and rankings, remember to group or sort as needed.
- **Review carefully:** If stuck, revisit the table relationships and task requirements.

**Good luck with your analysis!** If you need further clarification on relationships or how to approach a query, don't hesitate to ask.