# Data Queries:

## **List of Artists and Their Artworks**

This query retrieves a list of artists and the titles of their artworks.

SELECT Artist.FirstName, Artist.LastName, Artifact.Title

FROM Artist

LEFT JOIN Artifact ON Artist.ArtistId = Artifact.ArtistId;

## **Museum Revenue**

This query calculates the total revenue for each museum, taking into account transactions.

SELECT Museum.Name, SUM(Transactions.Price) AS TotalRevenue

FROM Museum

LEFT JOIN Transactions ON Museum.MuseumId = Transactions.MuseumId

GROUP BY Museum.MuseumId, Museum.Name;

## **List of Exhibitions and Collections**

This query retrieves a list of exhibitions and the collections associated with each exhibition.

SELECT Exhibition.Title AS ExhibitionTitle, Collection.Title AS CollectionTitle

FROM Exhibition

LEFT JOIN Collection ON Exhibition.ExhibitionId = Collection.ExhibitionId;

## **Members and Their Notifications**

This query fetches member details and their associated notifications.

SELECT Members.FirstName, Members.LastName, Notification.NotificationText, Notification.NotificationTime

FROM Members

LEFT JOIN Notification ON Members.MemberId = Notification.MemberId;

## **Total Amount Spent by a Member**

This query calculates the total amount spent by a specific member in all transactions. [**Memberid**] replace the actual Id of the member.

SELECT SUM(Transactions.Price) AS TotalAmountSpent

FROM Transactions

WHERE Transactions.MemberId = [MemberId];

# Reports:

## **Member Transaction History Report**

* **Access Level:** All members can access their transaction history.
* **Reporting Tool:** Use SQL queries or a reporting tool.
* **Generation:** Generated on member request.
* **Time Interval:** Transactions can be filtered by date range.

**SQL Query:**

SELECT Transactions.PurchaseDate, Transactions.ItemType, Transactions.Price

FROM Transactions

WHERE Transactions.MemberId = [MemberId]

ORDER BY Transactions.PurchaseDate;

## **Museum Revenue Summary Report:**

* **Access Level:** Manager and above.
* **Reporting Tool:** Use SQL queries or a reporting tool.
* **Generation:** Generated on manager request.
* **Time Interval:** Revenue can be summarized over a specified date range.

**SQL Query:**

SELECT Museum.Name, SUM(Transactions.Price) AS TotalRevenue

FROM Museum

LEFT JOIN Transactions ON Museum.MuseumId = Transactions.MuseumId

GROUP BY Museum.MuseumId, Museum.Name;

## **Exhibition Attendance Report:**

* **Access Level:** Museum staff, managers, and analysts.
* **Reporting Tool:** SQL queries or reporting tool.
* **Generation:** Generated on request.
* **Time Interval:** Attendance can be summarized over a specific exhibition period.

**SQL Query:**

SELECT Exhibition.Title AS ExhibitionTitle, COUNT(Transactions.ItemId) AS Attendance

FROM Exhibition

LEFT JOIN Collection ON Exhibition.ExhibitionId = Collection.ExhibitionId

LEFT JOIN Transactions ON Collection.CollectionId = Transactions.ItemId

GROUP BY Exhibition.ExhibitionId, Exhibition.Title;

## **Artifact Inventory Report:**

* **Access Level:** Museum staff and managers.
* **Reporting Tool:** SQL queries or reporting tool.
* **Generation:** Generated on request.
* **Time Interval:** Not applicable; it's an inventory report.

**SQL Query:**

SELECT Collection.Title AS CollectionTitle, Artifact.Title AS ArtifactTitle, Artist.FirstName, Artist.LastName

FROM Collection

LEFT JOIN Artifact ON Collection.CollectionId = Artifact.CollectionId

LEFT JOIN Artist ON Artifact.ArtistId = Artist.ArtistId;

## **Program Feedback Analysis Report:**

* **Access Level:** Program managers and analysts.
* **Reporting Tool:** SQL queries or reporting tool.
* **Generation:** Generated on request.
* **Time Interval:** Analysis of feedback for specific programs.

**SQL Query:**

SELECT Program.Name AS ProgramName, FeedbackSurvey.FeedbackText

FROM Program

LEFT JOIN Transactions ON Program.ProgramId = Transactions.ItemId

LEFT JOIN FeedbackSurvey ON Transactions.MemberId = FeedbackSurvey.MemberId

WHERE Transactions.ItemType = 'Program' AND FeedbackSurvey.FeedbackText IS NOT NULL;