Project 4 (100 points) Name Oliver Conover

For this project you will be using the **Entertainment Agency Example Database** from the book. The data diagram is on page 726 of your book or can be found in our course module called “Reference Material” under Data Diagrams from our Book.

*Sometimes, I will not be specifying the fields to include in your result set, so you decide what should be included.*

1. Working with only the Agent table. (10 points)

a. Write a query to show which agents were hired first. If written correctly, your results set should only return two rows. This is like Assignment # 11 question 1 and 2. Also page 393 when you have a subquery to return the earliest hiredate in your WHERE statement. Paste your query here.

select \*

from Agents

where Agents.DateHired = (select min(DateHired) from Agents)

b. Write a query to show what agent was hired last. Paste your query here.

select \*

from Agents

where Agents.DateHired = (select max(DateHired) from Agents)

c. What is the agent’s last name?

Dumbwit (haha)

d. Write a query to see if we have any other person with the last name of Dumbwit working for us? Paste your query here.

select \*

from Agents

where Agents.AgtLastName = 'Dumbwit'

2. Looking at the Data Diagram, which three tables in this database resolve a many to many relationship? (6 points)

Engagements – Entertainers - Customers

1. How did you identify these linking tables?

The infinity symbols meaning many to many relationships coming from the diagram.

3. Let’s start by learning about the number of rows in each of our tables. Count the rows in the following tables and record here: (18 points)

|  |  |
| --- | --- |
| Table | Rows in result set |
| Customers | 15 |
| Engagements | 111 |
| Agents | 9 |
| Entertainer\_Members | 40 |
| Members | 25 |
| Entertainer\_Styles | 32 |
| Musical\_Styles | 25 |
| Musical\_Preference | 36 |
| Entertainers | 13 |

4. Looking at the numbers in your result sets from questions # 3. (10 points)

a. If you wrote a query using all tables, what is the largest number of rows you could have in your results set?

111

1. If you wrote a query using the Customers, Musical\_Preference and Musical\_Styles table, what is the largest number of rows you could have in your results set?

36

1. If you wrote a query using Members and Entertainer\_Members, what is the largest number of rows you could have in your results set?

40

1. If you wrote a query using Customers, Engagements and Agents, what is the largest number of rows you could have in your results set?

111

1. If you wrote a query using Entertainers and Entertainer\_Styles, what is the largest number of rows you could have in your results set?

32

5. Working with only the Customers table. (4 points)

a. In what state or states do our customers live? Do not include duplicates.

WA

b. Paste your query here.

select distinct c.CustState

from Customers c

c. Write a query to show how many Customers live in each city? You want to show the city name and the number of customers living there. Paste your query here.

select c.CustCity, count(c.CustomerID)

from Customers c

group by c.CustCity

6. Working with only the Members table. (6 points)

a. Show the members whose first name starts with D or S? Paste your query here.

select m.MbrFirstName

from Members m

where m.MbrFirstName like 'D%' OR m.MbrFirstName like 'S%'

b. How many members are Female and how many are Male? Paste your query here.

select m.Gender, count(m.Gender)

from Members m

group by m.Gender

Note: Your results set includes NULL because in the table the Gender field can be left blank.

7. Are there any customers that don’t have an engagement. (6 points) Use the following steps:

a. From question #3, How many customers are in the customer table?

15

b. Write a query to show the number of unique customerid in the Engagements table? Paste your query here.

select distinct CustomerID

from Engagements

c. How many are there?

13

d. The difference between 7a and 7c, is the number of records you should get when you outer join Customer and Engagements. Your result set should only show the customerid and their last name with no engagement. Paste your query here.

select distinct e.CustomerID, c.CustLastName

from Engagements e

right join Customers c

on c.CustomerID = e.CustomerID

8. Are there any agents that don’t have engagements. . (6 points) Use the following steps:

a. From question #3, How many agents are in the Agents table?

9

b. Write a query to show the number of unique Agentsids in the Engagement table? Paste your query here.

select distinct a.AgentID, a.AgtLastName

from Engagements e

left join Agents a

on a.AgentID = e.AgentID

c. How many are there?

8

d. The difference between 8a and 8c, is the number of records you should get when you outer join Agents and Engagements. Your result set should only show the Agent or Agents with no Engagement. Paste your query here.

select distinct a.AgentID, a.AgtLastName

from Engagements e

right join Agents a

on a.AgentID = e.AgentID

where e.EngagementNumber is null

9. Are there any muscial styles that are not preferred by the customers? (6 points)

a. From question #3, How many Styleids are in the Musical\_Styles table?

25

b. Write a query to show the number of unique Styleids in the Musical\_preferences table? Paste your query here.

select distinct mp.StyleID

from Musical\_Preferences mp

c. How many are there?

20

d. The difference between 9a and 9c, is the number of records you should get when you outer join Musical\_preferences and Musical\_styles. Your result set should only show the Styleid that no customers prefer. Paste your query here.

select distinct ms.StyleID, ms.StyleName

from Musical\_Styles ms

left join Musical\_Preferences mp

on mp.StyleID = ms.StyleID

where mp.PreferenceSeq is null

10. Use INNER JOINs with the tables customers and musical\_preferences. (6 points)

a. For each customer name, count the number of stylesid. Sort your query with the largest count listed first. Give your count an alias of NbrofStyles. Paste your query here.

select c.CustomerID, c.CustFirstName + ' ' + c.CustLastName, count(mp.StyleID) NbrOfStyles

from Customers c

join Musical\_Preferences mp

on c.CustomerID = mp.CustomerID

group by c.CustomerID, c.CustFirstName, c.CustLastName

order by NbrOfStyles desc

b. Revise your query to only return the customer with more than 2 styleids. Do this by adding a HAVING statement. Paste your query here.

select c.CustomerID, c.CustFirstName + ' ' + c.CustLastName, count(mp.StyleID) NbrOfStyles

from Customers c

join Musical\_Preferences mp

on c.CustomerID = mp.CustomerID

group by c.CustomerID, c.CustFirstName, c.CustLastName

having count(mp.StyleID) > 2

order by NbrOfStyles desc

11. How many engagements has our Agent, Carol, had? (4 points) You should use two tables and a count function. What is the number?

a. Paste your query here.

select a.AgentID, a.AgtLastName + ' ' + a.AgtFirstName, count(e.EngagementNumber) NbrOfEngagements

from Agents a

right join Engagements e

on a.AgentID = e.AgentID

where a.AgentID = 3

group by a.AgentID, a.AgtLastName, a.AgtFirstName

12. Using Entertainers, Entertainers\_Styles and Musical\_Styles. Show me the StyleNames and EntStageName sorted by Stylenames. Paste your query here. (8 points)

select distinct e.EntStageName, ms.StyleName

from Entertainers e

join Entertainer\_Styles es

on es.EntertainerID = e.EntertainerID

join Musical\_Styles ms

on ms.StyleID = es.StyleID

order by ms.StyleName

13. Using Entertainers, Entertainers\_Members and Members, Show me the EntStageName and their member first and last name. Sort by EntStagename and combine the first and last name in one field. (4 points)

Looking at the relationship of these tables, each members can have several stagenames and each stagename can be held by more than one member.

1. Paste your query here.

select e.EntStageName, m.MbrFirstName + ' ' + m.MbrLastName FullName

from Entertainers e

join Entertainer\_Members em

on em.EntertainerID = e.EntertainerID

join Members m

on m.MemberID = em.MemberID

order by e.EntStageName

14. Using just the Engagements and Entertainers tables, how many engagements has each Entertainerid had. Show the StageName and give your count an alias of NbrofEngagements. Sort by Stagename descending. Paste your query here. (4 points)

select e.EntertainerID, en.EntStageName, count(e.EngagementNumber) NbrOfEngagements

from Engagements e, Entertainers en

where e.EntertainerID = en.EntertainerID

group by e.EntertainerID, en.EntStageName

order by en.EntStageName desc

15. Looking at the Entertainers, Entertainers\_Styles and Muscial\_Styles. How would you put the relationship of these tables into words. The Entertainers\_Styles is a linking table resolving a many to many relationship. (2 points)

Each Entertainer can have many Musical\_Styles, and many Musical\_Styles can belong to more than one Entertainer.