

# Introduction to SQL Programming Project

You have been hired by the ChinookCorp Company to provide reports based off of the data located in their Chinook database. Using the report specifications below develop queries that produce the proper result set. The example provided with each question is part of the actual answer. Make sure your answers match what's in the example. Submit your answers in the same format you submit your homework. These questions are designed to be challenging. I encourage you to use the Discussion Boards to help each other out.

1. Provide a report displaying the 10 artists with the most sales from July 2011 through June 2012. Do not include any video tracks in the sales. Display the Artist's name and the total sales for the year. Include ties for 10th if there are any.

## EXAMPLE

Artist Name	Total Sales
Metallica	26.73
Led Zeppelin	25.74

2. Provide a report displaying the total sales for all Sales Support Agents grouped by year and quarter. Include data from January 2010 through June 2012. Each year has 4 Sales Quarters divided as follows:
  - Jan-Mar: Quarter 1
  - Apr-Jun: Quarter 2
  - Jul-Sep: Quarter 3
  - Oct-Dec: Quarter 4

The Sales Quarter column should display its values as First, Second, Third, Fourth. The data needs to be ordered by the employee name, the fiscal year, and the sales quarter. The sales quarter order should be numeric and not alphabetical (e.g. "Third" comes before "Fourth").

## EXAMPLE

Employee Name	Fiscal Year	Sales Quarter	Highest Sale	Number of Sales	Total Sales
Jane Peacock	2011	First	13.86	7	35.64
Jane Peacock	2011	Second	21.86	5	49.70

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3. The Sales Reps have discovered duplicate Playlists in the database. Some but not all of the Playlists have Tracks associated with them. The duplicates have the same Playlist name, but have a higher Playlist ID. Write a report that displays the duplicate Playlist IDs and Playlist Names, as well as any associated Track IDs if they exist. Your result set will be marked for deletion so it must be accurate.

## EXAMPLE

Playlist Name	Playlist ID	Track ID
Music	8	3503
TV Shows	10	2819

4. Management would like to view Artist popularity by Country. Provide a report that displays the Customer country and the Artist name. Determine the total number of tracks sold by an artist to each country, and the total unique tracks by artist sold to each country. Include a column that shows the difference between the track count and the unique track count. Include the total revenue which will be the cost of the track multiplied by the number of tracks purchased. Include a column that shows whether the tracks are audio or video (Hint: Videos have a MediaTypeId=3). The range of data will be between July 2009 and June 2013. Order the results by Country, Track Count and Artist Name.

## EXAMPLE

Country	Artist Name	Track Count	Unique Track Count	Count Difference	Total Revenue	Media Type
USA	The Office	17	15	2	33.83	Video
USA	U2	14	14	0	13.86	Audio

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5. HR wants to plan birthday celebrations for all employees in 2016. They would like a list of employee names and birth dates, as well as the day of the week the birthday falls on in 2016. Celebrations will be planned the same day as the birthday if it falls on Monday through Friday. If the birthday falls on a weekend then the celebration date needs to be set on the following Monday. Provide a report that displays the above date logic. The column formatting needs to be the same as in the example below. (Hint: This is a tough one. I used 7 different functions in my solution. You will need to nest functions inside other functions. Don't worry about accounting for leap birthdays in your script.)

## EXAMPLE

Full Name	Birth Date	Birth Day 2016	Birth Day of Week	Celebration Date	Celebration Day of Week
Michael Mitchell	07/01/1973	07/01/2016	Friday	07/01/2016	Friday
Robert King	05/29/1970	05/29/2016	Sunday	05/30/2016	Monday

6. Management is interested in consolidating the Media Types and Genres offered. Specifically they want to see which Genres and Media Types are underperforming in terms of Track sales. Provide a report that groups Media Type and Genre. Include a column that shows the Unique Track Count of available tracks, as well as a column called Tracks Purchased Count that shows the count of tracks purchased. Include a column called Total Revenue for track purchases. Include a column called Percentile dividing Track Purchases Count by Unique Track Count and showing it as a percentile. Only include rows that have less than 10 in Total Revenue, or have a Percentile of less than 50. Order by Total Revenue in ascending order, Percentile in descending order, and Genre in ascending order.

## EXAMPLE

Media Type	Genre	Unique Track Count	Tracks Purchased Count	Total Revenue	Percentile
Purchased AAC audio file	Classical	6	4	3.96	66.67
MPEG audio file	Rock And Roll	12	6	5.94	50.00
MPEG audio file	Pop	14	6	5.94	42.86
MPEG audio file	Easy Listening	24	10	9.90	41.67
MPEG audio file	World	26	12	11.88	46.15
MPEG audio file	Electronica/Dance	28	12	11.88	42.86