

```
/**Rudy Meza***/
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```
/******HOMEWORK 5******/
```

```
/******Question 1******/
```

```
USE Chinook
```

```
SELECT TOP 10 WITH TIES Artist.Name AS ArtistName, SUM(Invoice.Total) AS TotalSales
```

```
FROM Artist
```

```
JOIN Album
```

```
ON ARTIST.ArtistId=ALBUM.ArtistId
```

```
JOIN Track
```

```
ON Track.AlbumId=Album.AlbumId
```

```
JOIN InvoiceLine
```

```
ON TRACK.TrackId=InvoiceLine.TrackId
```

```
JOIN Invoice
```

```
ON Invoice.InvoiceId=InvoiceLine.InvoiceId
```

```
JOIN MediaType
```

```
ON MediaType.MediaTypeId=TRACK.MediaTypeId
```

```
WHERE Invoice.InvoiceDate BETWEEN '7/1/2011' AND '6/30/2012'
```

```
AND MediaType.Name <> 'Video'
```

```
GROUP BY Artist.Name, Invoice.Total, MediaType.Name, Invoice.InvoiceDate
```

```
ORDER BY TotalSales Desc
```

```
/******Question 2 ******/
```

```
SELECT CONCAT(Employee.FirstName, ' ', Employee.LastName) AS [Employee  
Name], YEAR(Invoice.InvoiceDate) [Fiscal Year], CASE
```

```
When Datepart(Quarter, Invoice.InvoiceDate) = 1 THEN 'FIRST'
```

```
When Datepart(Quarter, Invoice.InvoiceDate) = 2 THEN 'SECOND'
```

```
When Datepart(Quarter, Invoice.InvoiceDate) = 3 THEN 'THIRD'
```

```
When Datepart(Quarter, Invoice.InvoiceDate) = 4 THEN 'FOURTH'
```

```
ELSE 'Quarter'
```

```
END AS [Sales Quarter], MAX(Invoice.Total) AS [Highest Sale], COUNT(Invoice.Total) AS  
[Number of Sales], SUM(Invoice.Total) TotalSales
```

```
FROM Employee
```

```
Join Customer
```

```
On customer.SupportRepId=Employee.EmployeeId
```

```
Join Invoice
```

```
On Invoice.CustomerId=customer.CustomerId
```

```
WHERE Invoice.InvoiceDate BETWEEN '1/1/2010' AND '6/30/2012'
```

```
Group By Employee.FirstName, Employee.LastName,
```

```
YEAR(Invoice.InvoiceDate), Datepart(quarter, Invoice.InvoiceDate)
```

```
Order By [Employee Name], [Fiscal Year], [Sales Quarter]
```

```
/******Question 3******/
```

```

SELECT Playlist.Name, MAX(Playlist.PlaylistId), PlaylistTrack.TrackId
FROM Playlist
left Join PlaylistTrack
on Playlist.PlaylistId=PlaylistTrack.PlaylistId
GROUP BY Playlist.Name,PlaylistTrack.TrackId
Having COUNT(Playlist.Name)>1
/*****Question 4*****/
SELECT Country, Artist.Name, COUNT(Track.TrackId) AS [Track Count],COUNT(Distinct
Track.TrackId) AS [Unique Track Count]
,InvoiceLine.UnitPrice*InvoiceLine.Quantity AS Revenue, CASE
When MediaType.Name Like '%video%' Then 'Video'
Else 'Audio'
End AS MediaType
FROM Customer
LEFT JOIN Invoice
on invoice.CustomerId=Customer.CustomerId
LEFT JOIN InvoiceLine
on Invoice.InvoiceId=InvoiceLine.InvoiceId
LEFT JOIN Track
on Track.TrackId=InvoiceLine.TrackId
LEFT JOIN Album
on Album.AlbumId=Track.AlbumId
LEFT JOIN Artist
on Artist.ArtistId=Album.ArtistId
LEFT JOIN MediaType
on MediaType.MediaTypeId=Track.MediaTypeId
WHERE Invoice.InvoiceDate BETWEEN '7/1/2009'AND '6/1/2013'
GROUP BY Customer.Country, Artist.Name, Track.Name, InvoiceLine.Quantity,
InvoiceLine.UnitPrice, MediaType.Name

/*****Question 5*****/
SELECT
FirstName + ' ' + LastName AS [Full Name]
--Conerts the birth date to U.S. standard.
,CONVERT(varchar,BirthDate,101) AS [Birth Date]
--Breaks out the Day and Month from BirthDate and merges them back together with 2016
using DATEFROMPARTS.
,CONVERT(varchar,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate)),101) AS [Birth Day
2016]
--Finds the day of week in 2016 using DATENAME.
,DATENAME(weekday,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate))) AS [Birth Day of
Week]
-- Checks for weekend dates using DATEPART and if found moves them to Monday using
DATEADD.
--Conerts the birth date to U.S. standard.
,CONVERT(varchar,(CASE
WHEN DATEPART(weekday,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate))) = 1
THEN DATEADD(DAY,1,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate)))
WHEN DATEPART(weekday,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate))) = 7
THEN DATEADD(DAY,2,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate)))
ELSE DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate))
END),101) AS [Celebration Date]
--A copy of the above CASE statement encapsulated in a DATENAME function.
,DATENAME(weekday,(CASE
WHEN DATEPART(weekday,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate))) = 1
THEN DATEADD(DAY,1,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate)))
WHEN DATEPART(weekday,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate))) = 7
THEN DATEADD(DAY,2,DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate)))

```

```

ELSE DATEFROMPARTS(2016,Month(BirthDate),Day(BirthDate))
END )) AS [Celebration Day of Week]
FROM Employee

```

/******Question 6******/

```

SELECT
MT.Name AS [Media Type]
,G.Name AS Genre
--,COUNT(*)
,COUNT(DISTINCT T.TrackId) AS [Unique Track Count]
,COUNT(IL.InvoiceId) AS [Tracks Purchased Count]
,ISNULL(SUM(IL.UnitPrice * IL.Quantity),0) AS [Total Revenue]
,CAST((COUNT(IL.InvoiceId)/CAST(COUNT(DISTINCT T.TrackId) AS numeric)*100) AS
numeric(9,2)) AS Percentile
FROM MediaType MT
JOIN Track T
ON T.MediaTypeId = MT.MediaTypeId
JOIN Genre G
ON G.GenreId = T.GenreId
LEFT JOIN InvoiceLine IL
ON IL.TrackId = T.TrackId
GROUP BY
MT.Name
,G.Name
--Total Revenue is less than 10.
HAVING ISNULL(SUM(IL.UnitPrice * IL.Quantity),0) < 10
--Percentile is less than 50.
OR CAST((COUNT(IL.InvoiceId)/CAST(COUNT(DISTINCT T.TrackId) AS numeric)*100) AS
numeric(9,2)) < 50
ORDER BY [Total Revenue], Percentile DESC, Genre

```