1. Find the media type which has 100 or more tracks. Print the name of such media type.

SELECT M.Name

FROM MediaType M, Track T

WHERE T.MediaTypeId = M.MediaTypeId

GROUP BY M.Name

HAVING COUNT(\*) > 100;

2. Find the playlists which have one or more tracks that have never been purchased in California (CA). Print the Id, and the name of such playlists.

SELECT P.PlaylistId, P.Name

FROM Playlist P, PlaylistTrack PT, Invoice I, InvoiceLine IL

WHERE P.PlaylistId = PT.PlaylistId

AND IL.InvoiceId = I.InvoiceId

AND PT.TrackId = IL.TrackId

AND I.BillingState <> "CA"

GROUP BY P.PlaylistId

HAVING COUNT (\*) >= 1;

3. Find the customers who have invoice total greater than the average invoice total. Print the first and last name, postal code, and invoice total of such customers.

SELECT C.Firstname, C. LastName, C.PostalCode, I.Total

FROM Customer C, Invoice I

WHERE (C.CustomerId = I.CustomerId)

AND I.Total > (SELECT AVG(I2.Total) FROM Invoice I2);

4. Find the employees to whom at least two other employee reports to. Print the Id, and first and last name of such employees.

SELECT E.EmployeeId, E.FirstName, E.LastName

FROM Employee E

WHERE E.EmployeeId IN (SELECT E2.EmployeeId FROM Employee E2)

GROUP BY E.ReportsTo

HAVING COUNT(\*) >= 2;

5. Find the artists that have tracks in the 'Rock' genre. Print the Id, and name of such artists.

SELECT DISTINCT AR.Name, AR.ArtistId

FROM Artist AR, Album AL, Track T

WHERE AR.ArtistId = AL.ArtistId

AND Al.AlbumId = T.AlbumId

AND GenreId = 1;

6. Find the artists who have recorded more than 10 albums. Print the Id, and name of such artists. Also print the number of albums for such artists.

SELECT AR.Name, AR.ArtistId, COUNT(\*) AS Number\_OF\_ALBUMS

FROM Artist AR, Album AL

WHERE AR.ArtistId = AL.ArtistId

GROUP BY AR.ArtistId

HAVING COUNT(\*) > 10;

7. Find the customers who are served by support representatives based in the same State as the customer. Print the first and last name of the customer and the support representative, and the State in which they are located.

SELECT C.CustomerId, C.FirstName, C. LastName, E.EmployeeId , E.FirstName, E.LastName

FROM Employee E, Customer C

WHERE E.EmployeeId = C.SupportRepId

AND E.State = C.State;

8. Find the albums that have more than 5 tracks. Print the Id, and the title of such album. Also print the number of tracks in each album.

SELECT AL.AlbumId, AL.Title, COUNT(T.TrackId) AS NUMBER\_OF\_TRACK

FROM Album AL, Track T

WHERE AL.AlbumId = T.AlbumId

GROUP BY T.AlbumId

HAVING COUNT(\*) > 5;

9. Modify the above query to output the number of albums that have more than 5 tracks.

SELECT COUNT(\*)

FROM Album A

WHERE (SELECT COUNT(T.AlbumId) AS TrackCount

FROM Track T

WHERE A.AlbumId = T.AlbumId) > 5;

10. Find the artists that have tracks in 2 or more genres. Print the Id, and name of such artists.

SELECT AR.ArtistId, AR.Name

FROM Artist AR, Album AL, Track T

WHERE (AR.ArtistId = AL.ArtistId)

AND (AL.AlbumId = T.AlbumId)

GROUP BY AR.ArtistId

HAVING COUNT(DISTINCT T.GenreId) >= 2;