**Richard Robinson**

**675 – Databases HW2**

**All Work is My Own**

**1) Genres with at most one track**

SELECT G.Name

FROM Genre G, Track T

WHERE G.Name

NOT IN

(

SELECT G2.Name

FROM Genre G2, Track T2

WHERE G2.GenreId = T2.GenreId

AND T2.Name <> T.Name

);

**2) Tracks purchased in CA or WA**

SELECT DISTINCT T.Name

FROM Track T

WHERE T.TrackId IN

(

SELECT DISTINCT IL.TrackId

FROM InvoiceLine IL

WHERE IL.InvoiceId IN

(

SELECT I.InvoiceId

FROM Invoice I

WHERE I.CustomerId IN

**(**

SELECT C.CustomerId

FROM Customer C

WHERE C.State = “WA”

OR C.State = “CA”

)

)

)

**3) Tracks purchased in quantities greater than 5**

SELECT DISTINCT T.Name

FROM Track T

WHERE T.TrackId IN

(

SELECT DISTINCT IL.TrackId

FROM InvoiceLine IL

WHERE IL.Quantity > 5

)

**4) Tracks costing less than 1.00 AND track length > average track length**

**I BELIEVE THE GIVEN COUNT FOR THE SOLUTION IN THE PDF IS WRONG. I get that solution (282) if I count the same track multiple times. The count should be 253 if distinct is used. Without distinct it returns 282, which is what the PDF says the solution is.**

SELECT DISTINCT T.Name

FROM Track T

WHERE

T.UnitPrice < 1.00

AND

T.Milliseconds > ( SELECT AVG ( T2.Milliseconds )

FROM Track T2 )

**5) Playlists with tracks that have never been purchased**

SELECT DISTINCT P.Name, P.PlaylistId

FROM Playlist P

WHERE P.PlaylistID IN

(

SELECT PT.PlaylistId

FROM PlaylistTrack PT

WHERE PT.TrackId IN

(

SELECT DISTINCT T.TrackId

FROM Track T

WHERE T.TrackId NOT IN

(

SELECT IL.TrackId

FROM InvoiceLine IL

)

)

)

**6) Composer not specified for 10 or more tracks**

SELECT DISTINCT P.Name, P.PlaylistId

FROM Playlist P

WHERE P.PlaylistID IN

(

SELECT PT.PlaylistId

FROM PlaylistTrack PT

WHERE PT.TrackId IN

(

SELECT DISTINCT T.TrackId

FROM Track T

WHERE T.Composer IS NULL

)

GROUP BY PlaylistId

HAVING COUNT(\*) > 10

)

**7) All tracks by same composer**

SELECT DISTINCT P.PlaylistId, P.Name

FROM Playlist P

WHERE P.PlaylistId IN

(

SELECT DISTINCT PT.PlaylistId

FROM PlaylistTrack PT, Track T

WHERE PT.TrackId

AND Composer NOT NULL

GROUP BY Composer

HAVING COUNT( DISTINCT T.Composer) = 1

)

**8) Playlists 50 or more composers.**

SELECT DISTINCT P.PlayLIstId, P.Name

FROM Playlist P

WHERE P.PlaylistId IN

(

SELECT DISTINCT PT.PlaylistId

FROM PlaylistTrack PT, Track T

WHERE PT.TrackId = T.TrackId

AND Composer NOT NULL

GROUP BY PlayLIstId

HAVING COUNT( DISTINCT T.Composer) > 49

)

**9) Invoice > 5.65 //Why was the easiest one number 9?**

SELECT DISTINCT C.FirstName, C.LastName, C.PostalCode, I.Total

FROM Customer C, Invoice I

WHERE C.CustomerId = I.CustomerId

AND I.Total > 5.65

**10) All employees no other employee reports to**

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

FROM Employee E

WHERE NOT EXISTS  
(

SELECT E.EmployeeId

FROM Employee E2

WHERE E.EmployeeId IN

(

SELECT E2.ReportsTo

)

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| --- |
| ) |