# HOMEWORK 2 CSC675

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### ANSWER 1

```
SELECT G.Name
FROM Genre G
WHERE G.GenreId IN (
SELECT T.GenreId
FROM Track T
GROUP BY T.GenreId
HAVING count (*) <= 1);
```

#### **OUTPUT RESULT = 1**

```
sqlite> SELECT G.Name
   ...> FROM Genre G
   ...> WHERE G.GenreId IN (
   ...> SELECT T.GenreId
   ...> FROM Track T
   ...> GROUP BY T.GenreId
   ...> HAVING count (*) <= 1);
Opera</pre>
```

# **ANSWER 2**

```
SELECT T.Name
FROM Track T
WHERE T.TrackId IN (
SELECT IL.TrackId
FROM InvoiceLine IL
WHERE IL.InvoiceId IN (
SELECT I.InvoiceId
FROM Invoice I
WHERE I.BillingState = 'CA'OR I.BillingState = 'WA'));
```

#### **OUTPUT RESULT = 151**

```
salite> SELECT T.Name
    ...> FROM Track T
    ...> WHERE T.TrackId IN (
    ...> SELECT IL.TrackId IN (
    ...> SELECT IL.TroviceId IN (
    ...> SELECT IL.TroviceId IN (
    ...> WHERE I.BillingState = 'CA'OR I.BillingState = 'WA'));
Meditação
Bem Devagar
Saudosismo
Tanto Tempo
Teu Vim Da Bahia - Live
Momentos Que Marcam
Bumbo Da Mangueira
Santo Antonio
Só Tinha De Ser Com Você
Valentino's
Believe
As We Sleep
J Squared
Maria
Posso Perder Minha Mulher, Minha Mãe, Desde Que Eu Tenha O Rock And Roll
You Fool No One
Viradouro
Tradição
Maria Maria
Entre E Ouça
Agora Que O Dia Acordou
Bye Bye Blackbird
Nefertiti
Soing Down / Highway Star
Boogie Blues
Don't Take Your Love From Me
Onde Anda Você
Formosa
Minha Namorada
Berimbau
Deixa
PORTA AO Tom 74
Pala Lur dos Olhos Teus (Miúcha e Tom Jobim)
Hey Cisco
Fortunetteller
High Ball Shooter
A Twist In The Tail
Animal
Hysteria
Baltimore, DC
Esquinas
Açai
Um Amor Puro
Fascinação
Sunshine Of Your Love
            Esquinas
Açai
Um Amor Puro
Fascinação
Sunshine Of Your Love
Lay Down Sally
Promises
Signe
Tears In Heaven
Zeca Violeiro
No Way Back
Still
Razor
Overdrive
My Hero
New York, New York
My Kind Of Town
Bad, Bad Leroy Brown
Zambação
Divitta-Se (Saindo Da Sua)
Assum Preto
Il Saria (Live)
Opachoró (Live)
Opachoró (Live)
Opachoró (Live)
Opachoró (Live)
As Ouro E Marfim (Live)
Lamento De Carnaval
Refazenda
A Paz
Tempo Rei
Toda Menian Baiana
Changes
I Fucking Hate You
Double Talkin' Jive
The Garden
Don't Damn Me
Dead Horse
Ghost Of The Navigator
Wildest Dreams
Age Of Innocence
Chains Of Misery
05 – Phantom of the Opera
Genghia Khan
The Trooper
Running Free
From Here To Eternity
Heaven Can Weit
Holy Smoke
Where Eagles Dare
Aces High
The Wicker Man
Dream Of Mirrors
Iron Maiden
Run To The Hills
The Wicker Man
Dream Of Mirrors
Iron Maiden
Run To The Hills
The Wicker Man
Dream Of Mirrors
Iron Maiden
Run To The Hills
The Wicker Man
Dream Of Mirrors
Iron Maiden
Run To The Hills
The Wicker Man
Dream Of Mirrors
Iron Maiden
Run To The Hills
The Wicker Man
Dream Of Mirrors
Iron Maiden
Run To The Hills
The Wicker Man
Dream Of Mirrors
Iron Maiden
Run To The Hills
The Wait Holier Than Thou
Intrough The Never
Wy Friend Of Misery
The Wait
```

Countinued Next Page ->

Blitzkrieg
So What
Attitude
For Whom The Bell Tolls
Creeping Death
Some Kind Off Monster
Shoot Me Again
All Within My Hands
Puteiro Em Jös Pessoa
O Dia Em Que A Torra Parou
rood Mundo Explica
Rock Das Arahbas (Ao Vivo) (Live)
I Could Have Lied
Waked In The Rain
By The Way
Can't Stop
On Mercury
Clash City Rockers
Train In Vain
Know Your Rights
Trake The Power
Speed Of Light
Spirit Wallshy
Spirit Wallshy
Synking
Twentienth Century Fox
Formiqueiro
O Pulso
O Pulso
A Welhor Forma
Homem Primata
Lugar Wenhum
Caras Como Eu
Toda Cor
Exodus, Pt. 2
The Passage
Peace On Earth
The First Time
Homely Girl
Bring Me Your Cup
Hang 'Em High
Little Guitars (Intro)
Ain't Talkin' 'bout Love
Panama
Can't Stop Loving You
You Really Got Me
Gay Witch Hunt
The Convention
The Coup
You Know I'm No Good
Me & Mr. Jones

### **ANSWER 3**

SELECT T.Name
FROM Track T
WHERE T.TrackId IN (
SELECT IL.TrackId
FROM InvoiceLine IL
GROUP BY IL.TrackId
HAVING count (\*) > 5);

#### **OUTPUT RESULT = 0**

```
sqlite> SELECT T.Name
...> FROM Track T
...> WHERE T.TrackId IN (
...> SELECT IL.TrackId
...> FROM InvoiceLine IL
...> GROUP BY IL.TrackId
...> HAVING count (*) > 5);
sqlite>
```

### **ANSWER 4**

SELECT T.Name
FROM Track T
WHERE T.UnitPrice < 1 AND T.Milliseconds > (
SELECT AVG(T.Milliseconds)
FROM Track T);

#### **OUTPUT RESULT = 282**

```
sqlite> SELECT T.Name
...> FROM Track T
...> WHERE T.UnitPrice < 1 AND T.Milliseconds > (
...> SELECT ANG(T.Milliseconds)
...> FROM Track T);
You Oughta Know (Alternate)
Master Of Puppets
Snoopy's search-Red baron
Stratus
No More Tears
Snowblind
Sleeping Village
Wheels Of Confusion / The Straightener
Book Of Thel
Jerusalem
The Alchemist
Stone Crazy
Talkin' 'Bout Women Obviously
Terra
Sozinho (Hitmakers Classic Mix)
Computadores Fazem Arte
Dazed and Confused
You Shook Met2)
How Many More Times
Advance Romance
Loverman
Mercyful Fate
Astronomy
Tuesday's Gone
River Song
Voce Nao Entende Nada - Cotidiano
Terra
A E O Z
Burn
Mistreated
Mistreated
Mistreated
Mistreated
Mistreated
Mistreated
Mistreated
     Terra
A E O Z
Burn
Mistreated
Smoke On The Water
You Fool No One
In My Time Of Dying
Kashmir
The Calling
Walkin'
Bye Bye Blackbird
Sow Mat
Someday My Prince Will Come
My Funny Valentine (Live)
Neferiti
Petits Machins (Little Stuff)
Miles Runs The Voodoo Down
Spuce Truckin
Voodoo Down
Spuce Truckin
Voodoo Down
Spuce Truckin
Voodoo Little Stuff)
Miles Runs The Voodoo Down
Spuce Truckin
Voodoo Down
Spuce Truckin
Voodoo Down
Spuce Truckin
Oid Truckin
Voodoo Down
Spuce Truckin
I Highway Star
Oid Truckin
Vou Fool No One (Alternate Version)
Samba Da Bênção
I Heard It Through The Grapevine
Child In Time
Flight Of The Rat
Hallowed Be Thy Name
     I Heard It Through The Grapevine Child In Time Flight Of The Rat

Hallowed Be Thy Name Phantom Of The Opera The Evil That Men Do Afraid To Shoot Strangers Fear Of The Dark Heaven Can Wait Iron Maiden Hallowed Ben Phantom Of The Opera The Evil That Men Do Afraid To Shoot Strangers Fear Of The Dark Heaven Can Wait Iron Maiden Hallowed Ben Pevelations To Tame A Land Powerslave Revelations To Tame A Land Powerslave Rime of the Ancient Mariner Chost Of The Navigator Blood Brothers Sign Of The Cross Dream Of Mirrors The Clansman Fear Of The Dark Hallowed Be Thy Name Seventh Son Of a Seventh Son Caught Somewhere in Time Heaven Can Wait Alexander the Great Alexander the Great Pallowed Be Thy Name Sign Of The Cross Fortunes Of War The Edge Of Darkness The Unbeliever The Angel And The Educated Fool Don't Look To The Eyes Of A Stranger Blow Your Mind Revolution 1993 Just Another Story Scam Third Stone From The Sun Pais Tropical Victim Of Change (Live) Scam Third Stone From The Sun Pais Tropical Victim Of Change (Live) Thank You The Rain Song No Quarter In The Evening Carouselambra Stairway To Heaven When The Levee Breaks Babe I'm Gonna Leave You How Many More Times Since I've Been Loving You In The Light
```

```
Hard Lovin' Man
No No No
Fools
Sing At Your Back Door
Child In Time (Son of Aleric - Instrumental)
Smoke Do The Water
Lary
Sometimes I Feel Like Screaming
Wicked Wany
Wicked Wany
Outbreak
Layla
Old Love
Jirzlobber
Jirzlobber
Jirzlobber
Avar Pigg
Come Back
Mhistle Stop
Jesus Of Suburbia / City Of The Damned / I Don't Care / Dearly Beloved / Tales Of Another Broken Home
Homecoming / The Death Of St. Jimmy / East 12th St. / Nobody Likes You / Rock And Roll Cirlfiend / We're Coming Home Again
November fain
Come
Civil War
Breakdown
Locomotive
Locomotive
Locomotive
Deapy Waters
She Mears Black
These Colours Don't Run
Brighter Than a Thousand Suns
The Longest Day of Benjamin Breeg
For the Greater Good of God
Lord of Light
The Legacy
Hallowed Be Thy Name (Live) [Non Album Bonus Track]
Hallowed Be Thy Name (Live) [Non Album Bonus Track]
Hallowed Be Thy Name (Live) [Non Album Bonus Track]
Hallowed Be Thy Name (Live) Rock Hate
No More Lies
Boance Of Death
Peasa Of Mirrors
The Thin Line Between Love & Hate
No More Lies
Boanc Of Death
Peaschendiale
Journeyman
Journeyman
Journeyman
Rockilles Last Stand
Tee For One
Rain Song
Se - Phantom of the Opera
Rime Of The Ancient Mariner
Powerslave

Achilles Last Stand
Tea For Once
Rain Song
Dazed And Confused
No Quarter
Stairway To Neaven
Moby Dick
Whole Lotts Love
Faroeste Caboolo
Down by the Sea
No Wester Stairway To Neaven
Moby Dick
Whole Lotts Love
Faroeste Caboolo
Down by the Sea
No Wester Stairway No Neaven
My Friend Missery
Helpless
The Small Hours
Am I Evil?
The Four Horsemen
Seek & Destroy
The House Jack Built
Bleeding Me
The Outlaw Torn
Master Of Puppets
The Thing Inflat Should Not Be
Disposable Heroes
Disposable Heroes
The Unfargiven II
Where The Wild Things Are
Low Man's Lyric
Fixxxer
Ride The Lightning
Fade To Black
Creeping Death
The Call Of Ktulu
St. Anger
Some Kind Of Monster
Invisible kid
Shoot Me Again
Thin My Hands
Blackened
...And Justice For All
One
The Shortest Straw
The Frayed Ends Of Sanity
To Live Is To Die
Norwegian Wood
No More Tears
Steal Away (The Night)
Suicide Solution (With Guitar Solo)
Blue Train
Daughter
Black
Inside Job
Release
Time
```

```
Us And Them
Se Ligs
Sir Spycho Sevy
Xanadu
By-Tor And The Snow Dog
La Villa Strangaito
Jingo
El Corazon Manda
El Corazon
El Corazon Manda
El Corazon
El Cora
```

# **QUESTION 5**

#### OUTPUT RESULT = 14

```
sqlite> SELECT PL.PlaylistId, PL.Name
   ...> FROM Playlist PL
   ...> WHERE PL.PlaylistId IN (
   ...> SELECT PLT.PlaylistId
   ...> FROM PlaylistTrack PLT
   ...> WHERE PL.PlaylistId IN (
   ...> SELECT PLT.PlaylistId
   ...> FROM PlaylistTrack PLT
   ...> WHERE PLT.TrackId IN (
   ...> SELECT T.TrackId
   ...> FROM Track T
   ...> WHERE T.TrackId NOT IN (
   ...> SELECT IL.TrackId
   ...> FROM InvoiceLine IL))));
1|Music
3 TV Shows
5|90's Music
8 Music
9 Music Videos
10 | TV Shows
11|Brazilian Music
12|Classical
13 Classical 101 - Deep Cuts
14|Classical 101 - Next Steps
15|Classical 101 - The Basics
16|Grunge
17 Heavy Metal Classic
18|On-The-Go 1
sqlite>
```

### **QUESTION 6**

#### **OUTPUT RESULT = 6**

```
sqlite> SELECT PL.PlaylistId, PL.Name
   ...> FROM Playlist PL
   ...> WHERE PL.PlaylistId IN (
   ...> SELECT PLT.PlaylistId
   ...> FROM PlaylistTrack PLT, Track T
   ...> WHERE PLT.TrackId = T.TrackId AND T.Composer is NULL
   ...> GROUP BY PLT.PlaylistId
   ...> HAVING count (T.TrackId) > 10);
1|Music
3|TV Shows
5|90's Music
8|Music
10|TV Shows
11|Brazilian Music
sqlite> ■
```

### **QUESTION 7**

```
SELECT PL.PlaylistId, PL.Name
FROM Playlist PL
WHERE PL.PlaylistId IN (
SELECT PLT.PlaylistId
FROM PlaylistTrack PLT, Track T
WHERE PLT.TrackId = T.TrackId
GROUP BY PLT.PlaylistId
HAVING count ( distinct T.Composer ) = 1);
```

#### **OUTPUT RESULT = 1**

```
sqlite> SELECT PL.PlaylistId, PL.Name
...> FROM Playlist PL
...> WHERE PL.PlaylistId IN (
...> SELECT PLT.PlaylistId
...> FROM PlaylistTrack PLT, Track T
...> WHERE PLT.TrackId = T.TrackId
...> GROUP BY PLT.PlaylistId
...> HAVING count ( distinct T.Composer ) = 1);
18|On-The-Go 1
sqlite>
```

### **QUESTION 8**

#### **OUTPUT RESULT = 4**

```
sqlite> SELECT PL.PlaylistId, PL.Name
...> FROM Playlist PL
...> WHERE PL.PlaylistId IN (
...> SELECT PLT.PlaylistId
...> FROM PlaylistTrack PLT, Track T
...> WHERE PLT.TrackId = T.TrackId AND T.Composer is NOT NULL
...> GROUP BY T.Composer
...> HAVING count (T.Composer) > 50);
8|Music
11|Brazilian Music
16|Grunge
17|Heavy Metal Classic
sqlite>
```

### **QUESTION 9**

SELECT C.FirstName, C.LastName, C.PostalCode, I.Total FROM Customer C, Invoice I WHERE C.CustomerId = I.CustomerId AND I.Total > 5.65;

#### **OUTPUT RESULT = 179**

sqlite> SELECT C.FirstName, C.LastName, C.PostalCode, I.Total
...> FROM Customer C, Invoice I
...> WHERE C.CustomerId = I.CustomerId AND I.Total > 5.65;
Dan|Pecters|1808|5.49
Mark|Philips|T66 2C7|8.91
John|Gordon|2131|31.86
Hugh|O'Reilly||5.94
Emma|Jone|174|13.86
Victor|Stevens|53793|5.94
Martha|Siik|B3S 1C5|8.91
Jeonic|Köhler|70374|13.86
Victor|Stevens|53793|5.94
Martha|Siik|B3S 1C5|8.91
Johninique|Lefebvre|75902|13.86
Bjern|Hansen|0171|5.74
Eduardo|Martins|81807-010|8.91
Tim|Goyer|95014|13.86
Wyatt|Girard|33080|5.94
Johannes|Van der Berg|1016|8.91
Luis|Reo|38|3593|5.94
Partick|Gray|8579|8.91
Hannah|Schneider|18789|13.86
Puja|Srivastava|560801|5.94
Partick|Gray|8579|8.91
Helana|Holy|14308|8.91
Jennifer|Peterson|V4C 108|13.86
Niklas|Schröder|18779|5.94
Terhi|Hamalāinen|86538|8.91
Phi|Huphes|SWM 38Th|33.86
Jack|Smith|98052-8308|5.94
John|Gordon|2131|8.91
Aaron|Mitchell|R3L 289|13.86
Jack|Smith|98052-8308|5.94
Leonie|Köhler|70374|8.91
Aaron|Mitchell|R3L 289|13.86
John|Gordon|2131|8.91
Aeron|Mitchell|R3L 289|13.86
John|Gordon|2131|8.91
Aeron|Mitchell|R3L 289|13.86
John|Gordon|2131|8.91
Aeron|Mitchell|R3L 289|13.86
Fernanda|Ramos|17206-677|5.94
Tim|Goyer|95014|8.91
Julia|Barnet|84|213.86
Joakim|Johansson|11239|6.94
Lucas|Mancini|0912|15.94
Honnique|Lefebvr|75092|8.91
Astrid|Gruber|1018|18.86
Erantick|Michterlon|113.86
Richard|Cunningham|76115.86
Lucas|Mancini|0912|5.94
Alexandre|Rocha|01318-209|8.91
Dan|Miller|94040-111|13.86
František|Wichtell|83.86
František|Wichterlové|14708|5.94
Alexandre|Rocha|01318-209|8.91
Dan|Miller|94040-111|13.86
František|Wichtellog|5.94
StanisanUngick|6ic|00-588|8.91

Dan|Miller|94040-111|13.86
Isabelle|Mercier|210808|5.94
Stanisław|Mojócik|08-388|8.91
Manoj|Parcek|110021|7|13.86
Heather|Leacock|32801|5.94
Julia|Barnett|84102|8.91
Julia|Barnett|84102|8.91
Frank|Harris|94043-3151|13.86
Lufs|Gonçalves|12227-000|5.94
Astrid|Gruber|1010|8.91
Frank|Harris|94043-3151|13.86
Lufs|Gonçalves|12227-000|5.94
Frank|Harris|94043-3151|13.86
Michelle|Brooks|1001|8.13
Frank|Harris|94043-3151|13.86
Michelle|Brooks|1001|8.13
Ellie|Sullivan|XtA 1N0|13.86
Diego|Gutiérrez|1106|5.94
Frank|Ralstonio|6001|8.71
Ellie|Sullivan|XtA 1N0|13.86
Diego|Gutiérrez|1106|5.96
Madalena|Sampaio||5.94
Marc|Dubois|6902|8.31
Marc|Dubois|6902|8.30
Mark|Philips|760 207|6.30
Mark|9hilips|760 2

Luis | Rojas | 15.94
Bjørn | Hansen | 8171 | 8.91
Fernanda | Ramos | 71828-677 | 13.86
Hannah | Schneider | 10789 | 5.94
Wyatt | 61747 | 33808 | 18.91
Joakim | Johansson | 11238 | 13.85
Jennifer | Peterson | Voc 108 | 5.94
Kathy| Chase | 897683 | 8.91
Edward | Francis | KZP | 11.7 | 13.86
Phil | Hughes | SWAY SEN | 5.94
Puja | Srivastava | 560801 | 8.91
Kara | Nielsen | 1728 | 13.86
Aaron | Mitchell | R31. 289 | 5.94
Niklas | Schröder | 18.97 | 18.94
Niklas | Schröder | 18.97 | 18.94
Jack | Smith | 98852-8388 | 19.91
Hichard | Cunningham | 76.112 | 23.86
Stanistaw | Wójcik | 80-358 | 16.94
Mark | Taylor | 2218 | 8.91
František | Wichterlové | 14.788 | 16.86
Stanistaw | Wójcik | 80-358 | 16.94
Mark | Taylor | 2218 | 8.91
František | Wichterlové | 14.788 | 16.86
Stanistaw | Wójcik | 80-358 | 16.94
Mark | Taylor | 2218 | 8.91
František | Wichterlové | 14.788 | 16.86
Stanistaw | Wójcik | 80-358 | 16.94
Mark | Taylor | 2218 | 8.91
Frank | Ralston | 68041 | 1.99
Julia | Barnett | 84.082 | 11.99
Julia | Sansa | 18.91
Luis | Gongalves | 12227-808 | 13.86
Frank | Ralston | 68041 | 15.94
Edward | Francis | KZP | 11.7 | 8.91
Luis | Gongalves | 12227-808 | 13.86
Frank | Ralston | 68041 | 15.94
Hohard | Cunningham | 76.116 | 13.86
Frank | 1818 | 13.86
Fran

# **QUESTION 10**

SELECT E1.EmployeeId, E1.FirstName, E1.LastName
FROM Employee E1
EXCEPT

SELECT E2.EmployeeId, E2.FirstName, E2.LastName
FROM Employee E2
WHERE E2.EmployeeId IN (
SELECT E1.ReportsTo
FROM Employee E1
WHERE E1.ReportsTo is NOT NULL);
OUTPUT RESULT = 5

```
sqlite> SELECT E1.EmployeeId, E1.FirstName, E1.LastName
    ...> FROM Employee E1
    ...> EXCEPT
    ...> SELECT E2.EmployeeId, E2.FirstName, E2.LastName
    ...> FROM Employee E2
    ...> WHERE E2.EmployeeId IN (
    ...> SELECT E1.ReportsTo
    ...> FROM Employee E1
    ...> WHERE E1.ReportsTo is NOT NULL);
3|Jane|Peacock
4|Margaret|Park
5|Steve|Johnson
7|Robert|King
8|Laura|Callahan
sqlite>
```