## Databases 1

TD: SQL

Familiarize yourself with the database music.db available on the course web page. Draw the diagram of its relational schema paying careful attention to foreign keys. What do you think are the uses of the foreign key Artist\_ID in tables Dics, Listing, and Written?

Q1. Display the CDs that came out in 1998.

0901b102   8a0c8c0b   8d0a290a   960a780c	43   61   66	The Proximity Effect  Le bonheur de la ten   Paradis Païen   Spread it all around		
Line count	: 35]			

**Q 2.** Display the CDs published in 21st century.

		Title				
		Quelqu'un m'a dit			Damaged	
8f08ae0a						
		The Bootleg Series V				
1 0500600-	21	mla - tradicional	2007	1 15 70	773	
Line count:	142]					

**Q 3.** Display the CDs that came out in the 90s.

		Title			
		French Kiss (Bonus CD)			
		Stiff'n Red	1991		
		This ain't no jukebo			
			1999		Damaged
7-0-1-0- 1	2	L Galaria Duranall	1006	15 05	37

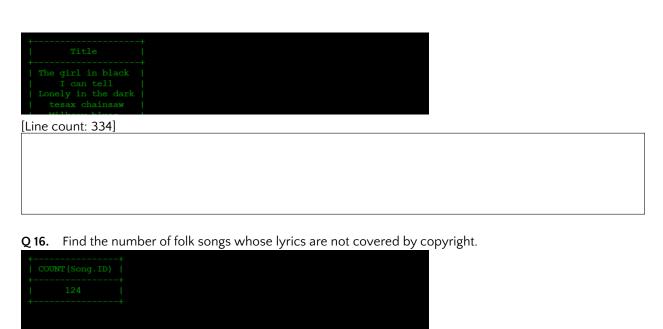
[Line count: 291]

**Q 4.** Display the different names of states of CDs (without repretition).

<b>Q 8.</b> Find the number of CDs that came out in the 80s and their price is between 12 and 14.
+
+
[Line count: 1]
Q 9. Find the total of prices of destroyed CD.
+
627.969999999999   
[Line count: 1]
Q 10. Find CDs by 'The Beatles'.
CDDB   Artist_ID   Title   Year   Price   State   ++   b107d40e   135   With the Beatles   1963   11.7   Damaged
b20b120d   135   White Album CD2   1968   18.67   Used     c009560d   135  Sgt. Pepper's Lonely  1967   15.89   Used
c8083330e   135   Revolver   1966   16.1   Used
LENE COURT. Of
Q 11. Find CDs by 'AC DC' that came out in the 90s.
CDDB   Artist_ID   Title   Year   Price   State
ac0bb00b   4
960e760b   4   AC/DC Live (CD2)   1992   16.41   New

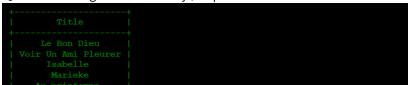
<b>Q 12.</b> Find artists names who had a CD in 1991.	
Name   ++	
Bâton Rouge     Dusters	
Calvin Russell     Chris Whitley	
[Line count: 25]	
Q 13. Find the sum of prices of all CD by Georges Brassens.	
Hein   +	
200.7300000000002   ++	
[Line count: 1]	
Q 14. Find titles of song of the Rock genre.	
Title	
Jean Baltazaarrr     Mona Lisa Klaxon	
Le Sud     Louis	
[Line count: 5504]	

**Q 15.** List titles of songs whose genre description uses the word 'afric'.



[Line count: 1]

Q 17. Find song titles written by Jacques Brel.



[Line count: 134]

Q18. Find artists who have written the song 'Anybody Seen My Baby?'.

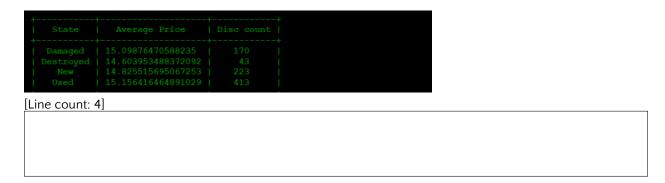


[Line count: 2]

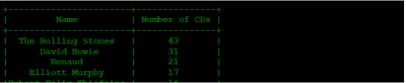
Q 19. Find the number of CDs with songs written by Mick Jagger.    Hein     154     t
[Line count: 1]
Q 20. Find the song list on the CD 'A Night at the Opera', in the order of their position.    Title
Q 21. Find name of artists who have not written a single song.    Name

Q 22. List songs performed by Lenny Kravitz that are present on David Bowie's CDs.
11tle
Database
[Line count: 1]
[EITIC COURT. 1]
<b>Q 23.</b> Find CDs that contain at least one song performed by an artist different from the artist releasing th disc.
CDDB   Artist_ID   Title   Year   Price   State
fc0fd113   112   Bar Aid   1992   16.22   Damaged
de0f4710   193
[Line count: 37]
Q 24. Find CDs that contain at least one song written by an artist different from the artist releasing of the CD
CDDB   Artist_ID   Title   Year   Price   State
8409a209   84
blOcaeOe   80
[Line count: 83]

**Q 25.** List the number and the average price of CD for every different state.

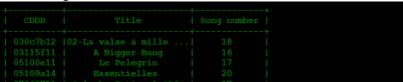


**Q 26.** For every artist find the number of CD they have released. Display the results in the descending order of the number of CDs



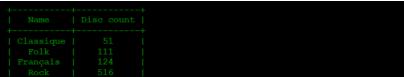
[Line count: 273]

**Q 27.** For every CD list its cddb number, its title and the number of songs it contains. Display only CD with at least 10 songs



[Line count: 688]

**Q 28.** For every genre find the number of CDs that contain a song of this genre. Mind not to count the same CD more than once. Display genres with more than 50 songs





**Q 29.** List the artists in the descending order of the average price of their CDs. List only those artists who have at least 4 CDs for which the average CD price is greater than 12.



[Line count: 61]

**Q 30.** Find CD whose list of songs is potentially incomplete. (Hint: compare the number of songs with the position of the last song).



[Line count: 21]

**Q 31.** Find frequent collaborators. Any pair of artists who have performed a song on the same CD are collaborators. If there are at least 2 CDs, then it is a pair of frequent collaborators.



[Line count: 8]