

Antes que nada, para que las consultas funcionen, se sobrentiende que se parte usando la base de datos con los datos correctos.

```
USE musicdb;
```

Select albums with track title equal to 'Yesterday' or 'Tomorrow'.

```
SELECT * FROM albums_by_track
WHERE track_title IN ('Yesterday', 'Tomorrow');
```

7	Tomorrow	Morrissey	1992	Your Arsenal
8	Tomorrow	Ozzy Osbourne	1995	Ozzmosis
9	Tomorrow	Silverchair	1995	frogstomp
10	Tomorrow	The Cardigans	1995	Life
11	Tomorrow	Troy Dillinger	1997	Del Dragons - Southern Jumbo
12	Tomorrow	U2	1981	October
13	Yesterday	6gig	2000	Tincan Experiment
14	Yesterday	Bad Religion	1984	Back to the Known
15	Yesterday	Elvis Presley	1999	Elvis Presley La Legende En Concert Internation...
16	Yesterday	Elvis Presley	1999	Elvis Presley La Legende En Concert Internation...
17	Yesterday	Elvis Presley	1999	Return Of The Tiger Man, The
18	Yesterdav	Elvis Preslev		With It

Figura 1

Select tracks with numbers between 8 and 12 for the album titled '20 Greatest Hits' in the year 1982.

```
SELECT * FROM tracks_by_album
WHERE album_title ='20 Greatest Hits'
AND year = 1982
AND number >= 8 AND number <= 12;
```

1	20 Greatest Hits	1982	8 Rock	The Beatles	Ticket To Ride
2	20 Greatest Hits	1982	9 Rock	The Beatles	Help!
3	20 Greatest Hits	1982	10 Rock	The Beatles	Yesterday
4	20 Greatest Hits	1982	11 Rock	The Beatles	We Can Work It Out
5	20 Greatest Hits	1982	12 Rock	The Beatles	Paperback Writer

Figura 2

Select albums with 'The Beatles' as performer.

```
SELECT * FROM albums_by_performer
WHERE performer = 'The Beatles'
```

15	The Beatles	1970	At The Hollywood Bowl	Rock
16	The Beatles	1970	Let It Be	Rock
17	The Beatles	1970	The Beatles Christmas Album	Unknown
18	The Beatles	1967	Magical Mystery Tour	Rock
19	The Beatles	1966	Revolver	Rock
20	The Beatles	1965	Help !	Rock
21	The Beatles	1964	Beatles For Sale	Rock
22	The Beatles	1964	Hear the Beatles Tell All	Rock
23	The Beatles	1964	The Beatles' Story	Unknown
24	The Beatles	1964	The Savage Young Beatles	Rock
25	The Beatles	1963	With	Rock

Figura 3

Select albums with 'The Beatles' as performer in a year between 1960 and 1980.

```
SELECT * FROM albums_by_performer
WHERE performer = 'The Beatles'
AND year >= 1960 AND year <= 1980
```

	performer	year	title	genre
1	The Beatles	1973	The Beatles 1967-1970	Rock
2	The Beatles	1970	At The Hollywood Bowl	Rock
3	The Beatles	1970	Let It Be	Rock
4	The Beatles	1970	The Beatles Christmas Album	Unknown
5	The Beatles	1967	Magical Mystery Tour	Rock
6	The Beatles	1966	Revolver	Rock
7	The Beatles	1965	Help !	Rock
8	The Beatles	1964	Beatles For Sale	Rock
9	The Beatles	1964	Hear the Beatles Tell All	Rock
10	The Beatles	1964	The Beatles' Story	Unknown
11	The Beatles	1964	The Savage Young Beatles	Rock
12	The Beatles	1963	With The Beatles	Rock

Figura 4

Select albums with 'The Beatles' as performer in a year between 1960 and 1980, ordered by year (from 1960 to 1980)

```
SELECT * FROM albums_by_performer
WHERE performer = 'The Beatles'
AND year >= 1960 AND year <= 1980
ORDER BY year asc;
```

	performer	year	title	genre
1	The Beatles	1963	With The Beatles	Rock
2	The Beatles	1964	The Savage Young Beatles	Rock
3	The Beatles	1964	The Beatles' Story	Unknown
4	The Beatles	1964	Hear the Beatles Tell All	Rock
5	The Beatles	1964	Beatles For Sale	Rock
6	The Beatles	1965	Help !	Rock
7	The Beatles	1966	Revolver	Rock
8	The Beatles	1967	Magical Mystery Tour	Rock
9	The Beatles	1970	The Beatles Christmas Album	Unknown
10	The Beatles	1970	Let It Be	Rock
11	The Beatles	1970	At The Hollywood Bowl	Rock
12	The Beatles	1973	The Beatles 1967-1970	Rock

Figura 5

Select albums in a year between 1960 and 1980, obtaining only 50 rows.

En este caso no hay ninguna tabla que me facilite esta consulta podría crear albums_by_year o usar un secondary index. Yo por agilizar las cosas voy a usar un allow filtering, aunque no es lo más eficiente.

```
SELECT * FROM album
WHERE year >= 1960 AND year <= 1980
LIMIT 50
ALLOW FILTERING;
```

	title	year	genre	performer	tracks
40	Partner Along	1971	Rock	ine Byrds	{1: 'Iltrany queen
41	Snafu	1974	Rock	Snafu	{1: 'Long Gone', 2
42	Separate Ways	1973	Rock	Elvis Presley	{1: 'Separate Ways
43	A Touch of Gold Volume 3 EP	1961	Rock	Elvis Presley	{1: 'Too Much', 2:
44	Radio Thrills	1979	Rock	Elvis Presley	{1: 'Interview Witl
45	America (Re-release)	1972	Country	Johnny Cash	{1: 'Opening Dialo
46	On Stage February 1970	1970	Rock	Elvis Presley	{1: 'See See Rider
47	This Was	1968	Rock	Jethro Tull	{1: 'My Sunday Fee'
48	The Great Bill Monroe	1961	Bluegrass	Bill Monroe	{1: 'Rocky Road Bl
49	Paris	1980	Unknown	Supertramp	{1: 'School', 2: '
50	Peter Gabriel 1 - Car			Gabriel	{1: 'Moribund The I

Figura 6

Select performers with style equal to 'Rock'.

```
SELECT * FROM performers_by_style
WHERE style='Rock';
```

	style ▾	name ▾
84	Rock	Allies
85	Rock	Allman Brothers Band
86	Rock	Alloy
87	Rock	Almost Famous
88	Rock	Alphaville
89	Rock	Altered State
90	Rock	Amazing Rhythm Aces
91	Rock	America
92	Rock	American Hi-Fi
93	Rock	American Music Club
94	Rock	American Pearl

Figura 7

Select performers with style equal to 'Rock' and a country with a name starting with V, W, X, Y or Z.

En este caso deberíamos usar la tabla de performers_by_style. Sin embargo, no contiene la columna de country. Sería posible crearla con un ALTER TABLE e insertar los valores para que la consulta fuera eficiente.

```
CREATE TABLE musicdb.performer (
  name VARCHAR,
  type VARCHAR,
  country VARCHAR,
  style VARCHAR,
  founded INT,
  born INT,
  died INT,
  PRIMARY KEY (name)
);

CREATE TABLE musicdb.performers_by_style (
  style VARCHAR,
  name VARCHAR,
  PRIMARY KEY (style, name)
);
```

En mi caso voy a filtrar en la tabla performer y usar un allow filtering aunque sea una consulta no eficiente.

Christian Berdejo

```
SELECT * FROM performer
WHERE style='Rock'
AND country >= 'V'
ALLOW FILTERING;
```

	name	born	country	died	founded	style	type
1	Manic Street Preachers	<null>	Wales	<null>	1980	Rock	band
2	Tom Jones	1940	Wales	<null>	<null>	Rock	artist
3	Feeder	<null>	Wales	<null>	1992	Rock	band
4	Dave Edmunds	1944	Wales	<null>	<null>	Rock	artist
5	Funeral For A Friend	<null>	Wales	<null>	2002	Rock	band
6	The Alarm	<null>	Wales	<null>	1981	Rock	band
7	Stereophonics	<null>	Wales	<null>	1996	Rock	band
8	John Cale	1942	Wales	<null>	<null>	Rock	artist
9	Man	<null>	Wales	<null>	1968	Rock	band
10	Budgie	<null>	Wales	<null>	1968	Rock	band

Figura 8

Select users with at least one preference equal to 'Rock'.

Esta consulta es posible gracias al index definido de las preferencias.

```
SELECT * FROM user
WHERE preferences CONTAINS 'Rock';
```

	id	email	name	preferences
1	12345678-abcd-abcd-abcd-abcd12345678	john@datastax.com	John	{'Classic', 'Jazz', 'Rock'}

Figura 9

Select albums with 'The Beatles' as performer and 'Rock' as gender, in a year before 1980.

```
SELECT * FROM musicdb.albums_by_genre
WHERE performer= 'The Beatles'
AND genre ='Rock'
AND year < 1980;
```

	genre	performer	year	title
1	Rock	The Beatles	1973	The Beatles 1967-1970
2	Rock	The Beatles	1970	At The Hollywood Bowl
3	Rock	The Beatles	1970	Let It Be
4	Rock	The Beatles	1967	Magical Mystery Tour
5	Rock	The Beatles	1966	Revolver
6	Rock	The Beatles	1965	Help !
7	Rock	The Beatles	1964	Beatles For Sale
8	Rock	The Beatles	1964	Hear the Beatles Tell All
9	Rock	The Beatles	1964	The Savage Young Beatles
10	Rock	The Beatles	1963	With The Beatles

Figura 10

Select albums with 'The Beatles' as performer and 'Rock' as gender in 1964 with a title starting with A or B.

```
SELECT * FROM musicdb.albums_by_genre
WHERE performer= 'The Beatles'
AND genre ='Rock'
AND year = 1980
AND title <= 'B';
```

genre	performer	year	title

Figura 11 Sin resultados