

a. Find the titles of all tracks by ARTIST released before YEAR

```
SELECT Track.Name
FROM Track, Artist, Album, ArtistAlbum, Person
WHERE Track.ID = Album.ID AND Person.Name = 'Tyler Fuerst' AND Person.PersonID =
Artist.PersonID AND ArtistAlbum.ArtistID=Artist.PersonID AND ArtistAlbum.AlbumID = Album.ID
AND Track.Date < 'Jan-20-2019';
```

Expected output:

Someone you loved

b. Give all the movies and their date of their checkout from a single patron (you choose how to designate the patron)

Designating patron by their PersonID (45)

```
SELECT Loanable.Name, Loanable.CheckoutDate
FROM Loanable, Movie, Patron
WHERE Loanable.ID = Movie.ID AND Loanable.PersonID = Patron.PersonID AND
Patron.PersonID=45;
```

Expected output:

Star Wars Episode I: The Phantom Menace Feb-29-2020

Star Wars Episode II: The Attack of the Clones Mar-01-2020

c. List all the albums and their unique identifiers with less than 2 copies held by the library.
Assuming this means <2 copies available/not loaned out

```
SELECT DISTINCT L.Name, L.ID
FROM Loanable as L, Album
WHERE Album.ID =L.ID AND 2 > (SELECT COUNT(*)
FROM Loanable WHERE Loanable.Name = L.Name and Loanable.PersonID IS NULL)
```

Expected output:

Jesus is King 2

Graduation 3

My beautiful dark twisted fantasy 4

Yeezus5

The life of Pablo 6

Ye 7

The college dropout 8

808s and heartbreak 9

Late Registration	10
Music to be murdered by	11
Kamikaze	12
Revival	13
Recovery	14
The Marshall Mathers LP	15
Relapse	16
Encore	17
The Slim Shady LP	18
The Eminem show	19
The Marshall Mathers LP 2	20

d. Give all the patrons who checked out a movie by ACTOR and the movies they checked out.

```
SELECT P.Name, Loanable.Name AS MovieName
FROM Person P, Person Q, Patron, Actor, MovieActor, Movie, Loanable
WHERE P.PersonID = Patron.PersonID AND Loanable.PersonID = Patron.PersonID AND
Loanable.ID = Movie.ID AND Movie.ID = MovieActor.MovieID AND Q.Name = 'Surya Kukkapalli'
AND Q.PersonID = Actor.PersonID AND MovieActor.ActorID = Actor.PersonID
```

Expected output:

Tyler Fuerst Lord of the Rings: The Fellowship of the Ring

e. Find the total number of albums checked out by a single patron (you choose how to designate the patron)

Designating patron by their PatronID

```
SELECT COUNT(*) AS NumOfAlbums
FROM Patron, Loanable, Album
WHERE Patron.PersonID = Loanable.PersonID AND Loanable.ID = Album.ID AND
Patron.PersonID = 45
```

Expected output:

3

f. Find the patron who has checked out the most videos and the total number of videos they have checked out.

```
SELECT Person.PersonID, Person.Name, COUNT(*)
FROM Person, Loanable, Patron, Movie
```

```
WHERE Person.PersonID = Patron.PersonID AND Loanable.ID = Movie.ID AND Loanable.  
PersonID = Person.PersonID  
GROUP BY Person.PersonID  
ORDER BY COUNT(*) DESC  
LIMIT 1;
```

Expected output:

```
45      Michael Not    2
```