# SQL FINAL PROJECT

## Overview

The final four class hours of this course will be the final project. The project will use all the SQL skills we have covered so far. Be sure to record all code you write in the project workbook.

## Part 1

Drop Table Records
123 Sequel Way
Big Data, CA 54321
913-555-2543

Drop Table Records is excited to offer you employment as a **data analyst**.

Drop Table Records has needed a qualified data professional for a long time and is excited for you to join our team!

We look forward to working with you soon!

Best,

Sri Schema and Rob Tables



We will be working with a new database schema for the SQL final project.

The first task of the final project is to create the database schema and import that data. You can download the files needed to create the database from Canvas.

## Task 1

Before a band releases a new record, Drop Table Records will work to promote the band and get fans excited for the new record.

We need a query that shows which artists have upcoming album releases, with those who have the nearest album release date listed first. Copy the text of your query below.

Select

b.bandname

, a.albumname

, a.releasedate

From band.album as a

Inner Join band.band as b

on b.idband = a.idband

order by a.releasedate asc

;


## Task 2

Drop Table Records also sends bands to play at different venues or events.

Some venues request bands that feature certain instruments. Can you write a query that displays the names of all bands that feature a drummer? Copy the text of your query below.

Select

       b.bandname

From band.band as b

Join band.player as p

       on p.idband = b.idband

where InstID = 4

-- InstID for Drums is 4, information taken from band.instrument table

## Task 3

It is important that Drop Table Records has a diversity of different bands signed to its label. We want many artists who represent different styles of music.

One way we determine the diversity in music is by looking at how many bands feature a certain instrument. We need a query that displays the number of bands that feature a certain instrument.

Select

     i.instrument

  , count(b.bandname) as Number_of_Bands

From band.band as b

Inner Join band.player as p

     on p.idband = b.idband

Inner Join band.instrument as i

     on i.instid = p.instid

Group by i.instrument

;

# Part 2

## Task 1

Our first task is to add the new bands to the correct table. The bands to be added are:

Weezer
TLC
Paramore
Blackpink
Vampire Weekend

# DROP TABLE RECORDS ADDS SEVERAL MAJOR ARTISTS

By Nick Musik

nickmusikmusicblog.com

Drop Table Records is a record label based out of Big Data, California.

After several years of slow (but steady) growth, Drop Table Records is experiencing massive success.

There are rumors that the new bands could be featured in an upcoming music festival. If this rumor ends up being true, you will hear it from me first!

| Weezer | Rivers | Cuomo Vocals | Rochester New York |
|---|---|---|---|
| Weezer | Brian | Bell Guitar | Iowa City Iowa |
| Weezer | Patrick | Wilson Drums | Buffalo New York |
| Weezer | Scott | Shriner Bass | Toledo Ohio |
| TLC | Tionne | Watkins Vocals | Des Moines Iowa |
| TLC | Rozonda | Thomas Vocals | Columbus Georgia |
| Paramore | Hayley | Williams Vocals | Franklin Tennessee |
| Paramore | Taylor | York Guitar | Nashville Tennessee |
| Paramore | Zac | Farro Drums | Voorhees Township New Jersey |
| Blackpink | Jisoo | Kim Vocals | South Korea |
| Blackpink | Jennie | Kim Vocals | South Korea |
| Blackpink | Roseanne | Park Vocals | New Zealand |
| Blackpink | Lisa | Manoban Vocals | Thailand |
| Vampire Weekend | Ezra | Koenig Vocals | New York New York |
| Vampire Weekend | Chris | Baio Bass | Bronxville New York |
| Vampire Weekend | Chris | Tomson Drums | Upper Freehold Township New Jersey |

```sql
Insert Into band.band
Values
        (22, 1, 'Weezer')
   , (23, 1, 'TLC')
   , (24, 1, 'Paramore')
   , (25, 1, 'Blackpink')
   , (26, 1, 'Vampire Weekend')

;

Insert Into band.player
Values
        (30, 3, 22, 'Rivers', 'Cuomo', 'Rochester', 'NY')
   , (31, 1, 22, 'Brian', 'Bell', 'Iowa City', 'IA')
   , (32, 4, 22, 'Patrick', 'Wilson', 'Buffalo', 'NY')
        , (33, 2, 22, 'Scott', 'Shriner', 'Toledo', 'OH')
        , (34, 3, 23, 'Tionne', 'Watkins', 'Des Moines', 'IA')
        , (35, 3, 23, 'Rozonda', 'Thomas', 'Columbus', 'GA')
        , (36, 3, 24, 'Hayley', 'Williams', 'Franklin', 'TN')
        , (37, 1, 24, 'Taylor', 'York', 'Nashville', 'TN')
        , (38, 4, 24, 'Zac', 'Farro', 'Voorhees Township', 'NJ')
        , (39, 3, 25, 'Jisoo', 'Kim', null, 'South Korea')
        , (40, 3, 25, 'Jennie', 'Kim', null, 'South Korea')
        , (41, 3, 25, 'Roseanne', 'Park', null, 'New Zealand')
        , (42, 3, 25, 'Lisa', 'Manoban', null, 'Thailand')
        , (43, 3, 26, 'Ezra', 'Koenig', 'New York', 'NY')
        , (44, 2, 26, 'Chris', 'Baio', 'Bronxville', 'NY')
        , (45, 4, 26, 'Chris', 'Tomson', 'Upper Freehold Township', 'NJ')


/*
From band.instrument table:
instd           instrument
1               Lead Guitar
2               Bass Guitar
3               Vocals
4               Drums
*/

;
```

## Task 2

Drop Table Records has signed a contract with a new venue! Our artists will have the opportunity to perform at the new venue before anyone else!

Can you please add the following venue to the database?

Venue: Twin City Rock House
City: Minneapolis
State: Minnesota
Zip Code: 55414
Seats: 2,000

Insert Into band.venue
Values
        (12, 'Twin City Rock House', 'Minneapolis', 'MN', 55414, 2000)
;

# Part 3

## TWIN CITY ROCK HOUSE ANNOUNCES NEW MUSIC FESTIVAL

By Nick Musik

nickmusikmusicblog.com

The rumors are true! Twin City Rock House (TCRH) is a new music venue opening in Minneapolis, Minnesota.

TCRH has partnered with Drop Table Records to host a new music festival. While we don't know who will be performing yet, we do know the performers will be some big names in the music industry.

Stay tuned for more information.

## Task 1

We are preparing for the upcoming music festival at the Twin City Rock House. We need to choose which bands will be performing. Most of the bands have already been selected, but we want to give you some input, too.

Select three bands from our band table to perform at the music festival. The festival will take place the first Saturday of next month and will have 2,000 attendees.

Each band will need the gig added to the gig table. Copy the text of your query below.

```sql
-- first Saturday of next month is 5th Feb 2022
Insert Into band.gig
values
        (
    1,
    (select idvenue From band.venue where vname = 'Twin City Rock House'),
    (select idband From band.band where bandname = 'U2'),
    '2022-02-05',
    (select seats From band.venue where vname = 'Twin City Rock House')
    )
    ,
    (
    2,
    (select idvenue From band.venue where vname = 'Twin City Rock House'),
    (select idband From band.band where bandname = 'Eminem'),
    '2022-02-05',
    (select seats From band.venue where vname = 'Twin City Rock House')
    )
    ,
    (
    3,
    (select idvenue From band.venue where vname = 'Twin City Rock House'),
    (select idband From band.band where bandname = 'Drake'),
        '2022-02-05',
    (select seats From band.venue where vname = 'Twin City Rock House')
    )
    ;
```

## Task 2

Preparing for the upcoming festival has made us realize that we need a way to quickly view which bands have upcoming gigs.

Create a view that displays the following information ordered by gig date:

- Band ID
- Band name
- Gig venue
- Gig date
- Number of attendees

Copy the text of your query below.

Create View band.vw_Event_Info as

Select

    b.idband as Band_ID

 , b.bandname as Band_Name

 , v.vname as Gig_Venue

 , g.gigdate as Gig_Date

 , g.numattendees as Number_of_Attendees


From band.gig as g

Inner Join band.band as b

    on b.idband = g.idband

  Inner Join band.venue as v

    on v.idvenue = g.idvenue

 ;

## Task 3

When a musician performs in their hometown, we end up selling more merchandise. Concert attendees love to support local musicians.

We would like a view that shows us the location of our venues and the hometowns of our signed artists. Not all our artists are from the United States. If the city column is ***NULL*** for an artist, we can display their state as "international" instead.

The information we need in this view:

- Band ID
- Band name
- Player first name
- Player last name
- Home city
- Home state
- Gig date
- Venue name
- Venue city
- Venue state

Copy the text of your query below.

Select

      b.idband as Band_ID

 , b.bandname as Band_Name

 , p.pfname as Player_First_Name

 , p.plname as Player_Last_Name

 , case

        when p.homecity is null then 'International'

   else p.homecity

    End as Home_City

    , p.homestate as Home_State

 , g.gigdate as Gig_Date

 , v.vname as Venue_Name

 , v.city as Venue_City

 , v.state as Venue_State

```
From band.band as b

Inner Join band.player as p

        on p.idband = b.idband

    Inner Join band.gig as g

        on g.idband = p.idband

    Inner Join band.venue as v

        on v.idvenue = g.idvenue

    ;
```

# Part 4

## Task 1

We loved the view you created for us! However, it sometimes displays too much information to be useful.

Can you create a stored procedure that allows us to specify a US state and then displays all players who are from that state?

The information we want to see:

- Band name
- Player first name
- Player last name
- Home state

Copy the text of your query below.

Delimiter !

Create Procedure band.get_Player_State(IN State varchar(45))

BEGIN

```
    Select

            b.bandname as Band_Name

    , p.pfname as Player_First_Name

    , p.plname as Player_Last_Name

    , p.homestate as Home_State

        From band.player as p

    Inner Join band.band as b

            on b.idband = p.idband
```

```
    where p.homestate = State

    ;

    END !
```

## Task 2

You have heard the saying "the show must go on." We do everything we can to avoid canceling a gig. However, life happens, and sometimes a player has a family emergency or a bad cold.

When a player cannot perform, the first thing we do is try to find another musician to take their place for the night.

We need a stored procedure that allows us to specify which instrument we need filled and displays all players who play that instrument and are not already scheduled for gigs that night.

Copy the text of your query below.

```
Delimiter !

Create Procedure band.get_Player_Available(IN inst varchar(45))

BEGIN

Select

        concat(p.pfname, ' ', p.plname) as Player_Name

From band.player as p

Inner Join band.instrument as i

        On i.instid = p.instid

Where i.instrument = inst

;

END !
```

## Task 3

To thank you for all your hard work, we are letting you choose the music group that will perform at the end of our festival.

We are willing to pay any amount to get your favorite artist to perform. However, to do so, we will need you to add their information to our database.

Add your favorite artist to our band table and player table. Do not forget to add the gig, too!

Copy the text of your query below.

Insert Into band.band

Values

    (27, 1, 'Miami Kuwait')

;

Insert Into band.player

Values

    (46, 3, 27, 'Tariq', 'Qasim', null, 'Kuwait')

, (47, 4, 27, 'Khalid', 'Al Randi', null, 'Kuwait')

;

Insert Into band.gig

Values

    (4,

(select idvenue From band.venue where vname = 'Twin City Rock House'),

(select idband From band.band where bandname = 'Miami Kuwait'),

'2022-02-05',

(select seats From band.venue where vname = 'Twin City Rock House')

)

;