# BAX-421 Homework 1

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Fall 2022

Assignment Weight: 5% of your grade

Due Date: Saturday, October 8, 2022 11:59 PM (Both Sections)

## Instructions

1. Please follow the instructions available on the recording on the homework submission guidelines.
2. Leaving questions unanswered will earn a zero.
3. You need to write the queries for three databases:
   - COLONIAL database
   - ENTERTAINMENT AGENCY database
   - ACCOUNTS PAYABLE database
4. The scripts to install the databases are available on Canvas.
5. The ER diagrams for each of these databases are provided on a separate document for convenient reference.
6. Although this point may be irrelevant for Homework 1, I am still stating - you cannot use any subqueries, window functions, or grouped queries. Please stick to joins and unions. A few questions require the use of `COUNT` and one question requires the use of GROUP BY. You can refer to the end pages of my notes for it.

# COLONIAL DATABASE

Install the Colonial database and load the data using the script file available on Canvas. Write MySQL queries to answer the following questions.

## Question 1

List the trip name of each trip that has the season Late Spring.

## Question 2

List the trip name of each trip that is in the state of Vermont (VT) or that has a maximum group size greater than 10.

## Question 3

List the trip name of each trip that has the season Early Fall or Late Fall.

## Question 4

How many trips are in the states of Vermont (VT) or Connecticut (CT)?

## Question 5

List the name of each trip that does not start in New Hampshire (NH).

## Question 6

List the name and start location for each trip that has the type Biking.

## Question 7

List the name of each trip that has the type Hiking and that has a distance of greater than six miles. Sort the results by the name of the trip.

## Question 8

List the name of each trip that has the type Paddling or that is located in Vermont (VT).

## Question 9

How many trips have a type of Hiking or Biking?

## Question 10

List the trip name and state for each trip that occurs during the Summer season. Sort the results by trip name within state.

## Question 11

List the trip name of each trip that has Miles Abrams as a guide.

## Question 12

List the trip name of each trip that has the type Biking and that has Rita Boyers as a guide.

## Question 13

For each reservation that has a trip date of July 23, 2018, list the customer's last name, the trip name, and the start location.

## Question 14

How many reservations have a trip price that is greater than $50.00 but less than $100.00?

## Question 15

For each reservation with a trip price of greater than $100.00, list the customer's last name, the trip name, and the trip type.

## Question 16

List the last name of each customer who has a reservation for a trip in Maine (ME).

## Question 17

How many trips originate in each state? Order the results by the state. Hint: Use GROUP BY. We will cover GROUP BY in more detail in the future weeks but for now refer to the pages towards the end of my notes.

## Question 18

List the reservation ID, customer last name, and the trip name for all reservations where the number of persons included in the reservation is greater than four.

## Question 19

List the trip name, the guide's first name, and the guide's last name for all trips that originate in New Hampshire (NH). Sort the results by guide's last name within trip name.

## Question 20

List the reservation ID, customer number, customer last name, and customer first name for all trips that occur in July 2018.

## Question 21

Colonial Adventure Tours calculates the total price of a trip by adding the trip price plus other fees and multiplying the result by the number of persons included in the reservation. List the reservation ID, trip name, customer's last name, customer's first name, and total cost for all reservations where the number of persons is greater than four. Use the column name TotalCost for the calculated field.

## Question 22

List all customers whose first name starts with L or S. Sort the results by FirstName.

## Question 23

List all the trip names whose prices are between $30 and $50.

## Question 24

Write a query to determine *how many trips* have prices between $30 and $50. (Please note that this question is different from number 23 above.)

## Question 25

Display the trip ID, trip name, and reservation ID for all trips that do not yet have the reservations.

## Question 26

List the trip information for each pair of trips that have the same start location.

## Question 27

List information for each customer that either lives in the state of New Jersey (NJ), or that currently has a reservation, or both.

## Question 28

Display all guides who are not currently assigned to any trips.

## Question 29

Display the guide information for each pair of guides that come from the same state.

## Question 30

Display the guide information for each pair of guides that come from the same city.

# ENTERTAINMENT AGENCY DATABASE

Install the Entertainment database and load the data using the two script files. Please run the script file for the STRUCTURE first and then run the script file for loading the DATA. Write MySQL queries to answer the following questions.

## Question 1

List the names and phone numbers of all our agents, and list them in last name/first name order.

## Question 2

List all engagements and their associated start dates. Sort the records by date in descending order and by engagement in ascending order.

## Question 3

Show the agent name, date hired, and the date of each agent's first six-month performance review.

## Question 4

Create a list of all engagements that occurred during October 2017.

## Question 5

List any engagements in October 2017 that start between noon and 5 p.m.

## Question 6

List all the engagements that start and end on the same day.

## Question 7

Display agents and the engagement dates they booked, sorted by booking start date.

## Question 8

List customers and the entertainers they booked.

## Question 9

Find the agents and entertainers who live in the same postal code.

## Question 10

Display an alphabetical list of entertainers (Stage name, phone numbers, and city) based in Bellevue, Redmond, or Woodinville.

## Question 11

Display all the engagements that run for four days.

## Question 12

Display the entertainers, the start and end dates of their contracts, and the contract price.

## Question 13

Display the entertainers, the start and end dates of their contracts, and the contract price.

## Question 14

Display all the entertainers who played engagements for customers Berg or Hallmark.

## Question 15

Display agents and the engagement dates they booked, sorted by booking start date.

## Question 16

List customers and the entertainers they booked.

## Question 17

List the agents and entertainers who live in the same postal code.

## Question 18

List entertainers who have never been booked.

## Question 19

Display all musical styles and the customers who prefer those styles. Include also styles not preferred by customers.

## Question 20

Display agents who have never booked an entertainer.

## Question 21

List customers with no bookings.

## Question 22

List all entertainers and any engagements they have booked.

## Question 23

Display a complete list of customers and entertainers.

## Question 24

Display a list of customers who like contemporary music together with a list of entertainers who play contemporary music.

## Question 25

Display a combined list of agents and entertainers.

# ACCOUNTS PAYABLE DATABASE

Install the Accounts Payable database and load the data using the script file. Write MySQL queries to answer the following questions.

## Question 1

Select all data from the Invoices table.

## Question 2

Display the Invoice number, Invoice date, and the Invoice total. Sort in descending sequence by Invoice Total.

## Question 3

Display all invoices from the month of June.

## Question 4

Write a query to show all vendors. Then sort the result set by last name and then first name, both in ascending sequence.

## Question 5

Write a query that returns vendor's last name and first name. Sort the result set by last name and then first name in ascending sequence. Return only the contacts whose last name begins with the letter A, B, C, E.

## Question 6

Display the invoice due date and the invoice amounts increased by 10%. Return only the rows with an invoice total that is greater than or equal to 500 and less than or equal to 1000. Sort the result set in descending sequence by the invoice due date.

## Question 7

Write a query that displays the invoice number, invoice total, payment credit total, and balance due. Return only invoices that have a balance due greater that is than $50. Sort the result set by balance due in descending sequence. Limit the result set to show only the results with the 5 largest balances.

## Question 8

Display the invoices which have balance due.

## Question 9

Display the names of the vendors who have balance due.

## Question 10

Write a query to display information about the vendors and the default account description for each vendor.

## Question 11

Write a query to display all invoices for each vendor. So for example, if a vendor has 2 invoices, then display all line item information for both invoices. Just an example to give you an idea.

## Question 12

Write a query to return one row for each vendor whose contact has the same last name as another vendor's contact.

## Question 13

Write a query to return one row for each account number that has never been used. Sort the result set by Account Number.

## Question 14

Generate the result set containing the following columns:

Vendor Name
Vendor State

If the vendor is in California, the value in the Vendor State column should be "CA"; otherwise, the value should be "Outside CA." Sort the final result set by Vendor Name.