MySQL

Instructions:

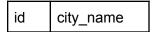
Do not use any aliases for table names while writing any query except for cases where aliases need to be used in select to get output with desired column names.

Do not use any subqueries while writing any of the queries. Use Joins instead.

travelers

id	traveller_name
-	- · · · · · · · · · · · · · · · · · · ·

cities



city_travel_history

id traveller_id city_id from_date to_date

Write the following queries:

1) Names of cities which have not been visited by any traveler at all.

```
city_name
```

2) Against every traveler, number of distinct cities travelled during the month of Oct 2022

traveller_name	num_cities_travelled
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3) Query to find top five cities by number of distinct travellers based on overall travel history ordered by number of distinct travellers in descending order

```
city_name
```

4) Names of cities which have not been visited by any traveller during the month of Oct 2022

```
city_name
```

Laravel

Instructions:

Please make sure all validations are in place.

Create laravel apis for the following using the database schema provided in SQL section:

1) Returns the travel history of a user

user_id is a mandatory input

Optional parameters: from_date and to_date

Output: json encode of array of objects containing below details ordered by travel date city_name, from_date, to_date

 Returns the count of distinct travellers against every city for a given period from_date and to_date are mandatory inputs
Output: json encode of array of objects containing below details ordered by traveller_count

city_name, traveller_count

PHP

Instructions:

Please avoid using inbuilt php functions unless it's necessary Please write an error and notice free code.

1)

id

Considering a vehicle can be uniquely identified by one of the following three combinations:

- a) Registration number (reg num).
- b) Engine number (engine_num) and Chassis Number (chassis_num) combination
- c) Vin number (vin_num)

Write a function in core PHP which will take these four identifiers of a vehicle as input and return the id of the vehicle it matches based on any one of the above three criterias (return the id on first matching criteria, no need to check further) or return false otherwise.

- 2) \$input_arr = ['apple', 'banana', 'custard', 'denmark', 'banana', 'apple', 'banana', 'denmark', 'apple'];
 - a. Find the unique elements in the above array and print it one by one.
 - b. Create an array with the unique elements as key and its corresponding value should be the number of times repeated in the above array

Expected Output Array: ['apple' => 3, 'banana' => 2, 'custard' => 1, 'denmark' => 1];