CODING

Solve the next two problem using your favourite coding language and send us the answer:

Problem 1.

Given a list of the scores of different students, `items`, where `items[i] = [IDi, scorei]` represents one score from a student with `IDi`, calculate each student's top five average.

Return *the answer as an array of pairs* `result`*, where* `result[j] = [IDj, topFiveAveragej]` *represents the student with* `IDj` *and their top five average. Sort* `result` *by* `IDj` *in increasing order.*

A student's top five average is calculated by taking the sum of their top five scores and dividing it by `5` using integer division

Example 1:

Input: items = [[1,91],[1,92],[2,93],[2,97],[1,60],[2,77],[1,65],[1,87],[1,100],[2,100],[2,76]]

Output: [[1,87],[2,88]]

Explanation:

The student with ID = 1 got scores 91, 92, 60, 65, 87, and 100. Their top five average is (100 + 92 + 91 + 87 + 65) / 5 = 87.

The student with ID = 2 got scores 93, 97, 77, 100, and 76. Their top five average is (100 + 97 + 93 + 77 + 76) / 5 = 88.6, but with integer division their average converts to 88.

Example 2:

Input: items = [[1,100],[7,100],[1,100],[7,100],[1,100],[7,100],[1,100],[7,100],[1,100],[7,100]]

Output: [[1,100],[7,100]]

Constraints:

- `1 <= items.length <= 1000`
- `items[i].length == 2`
- `1 <= IDi <= 1000`
- `0 <= scorei <= 100`
- For each `IDi`, there will be at least five scores.

PROBLEM 2.

Given two lists Aand B, and B is an anagram of A. B is an anagram of A means B is made by randomizing the order of the elements in A.

We want to find an *index mapping* P, from A to B. A mapping P[i] = j means the ith element in A appears in B at index j.

These lists A and B may contain duplicates. If there are multiple answers, output any of them.

For example, given

A = [12, 28, 46, 32, 50]

B = [50, 12, 32, 46, 28]

We should return
[1, 4, 3, 2, 0]

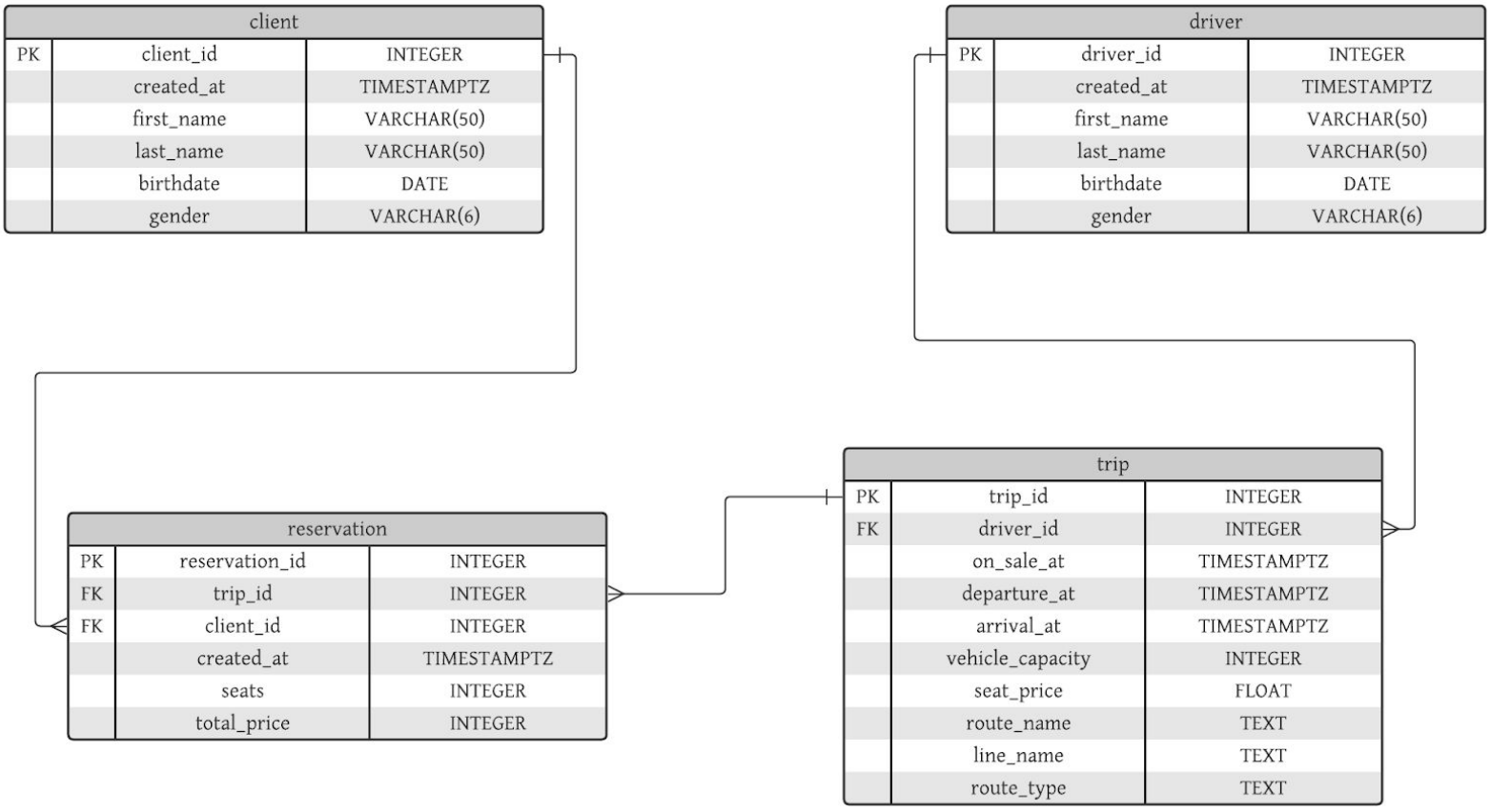
as P[0] = 1 because the 0th element of A appears at B[1], and P[1] = 4 because the 1st element of A appears at B[4], and so on.

Note:

1. **A, B have equal lengths in range [1, 100].**
2. **A[i], B[i] are integers in range [0, 10^5].**

SQL

1. Create a database following the next diagram.



2. Download from this link the CSV's with the data of each table and import it into your database
3. Write the queries needed to answer the next questions:

- How many clients exist?
- Which are the 10 clients that have spent more money with their reservations?
- How many trips have more seats reserved than their vehicle_capacity?
- How many different full names (first_name + last_name) are in tables client & driver combined.

Share with us the script that you use to create the whole database and import the data. Also send us the queries you use to answer the questions.