Data Analyst Test I

Here below you will find 4 questions where you are asked to write **SQL queries**. You have 3 hours to answer them. All the information you need is on this document.

Question 1

An organization maintains employment data in 3 tables: EMPLOYEE, COMPANY, and SALARY. Write a query to print the names of every company where the average salary is greater than or equal to 40,000. Each distinct row of results in the output must contain the name of a company whose average employee salary is ≥ 40,000 in the COMPANY.NAME format.

Schema

EMPLOYEE		
Name	Type	Description
ID	Integer	An employee ID in the range [1,10000].This is a primary key
NAME	String	An employee name. This field contains between 1 and 100 characters

COMPANY		
Name	Type	Description
ID	Integer	A company ID in the range [1,1000].This is a primary key
NAME	String	A company name. This field contains between 1 and 100 characters

SALARY		
Name	Type	Description
EMPLOYEE_ID	Integer	An employee ID in the range [1,10000].
COMPANY_ID	Integer	A company ID in the range [1,1000].
SALARY	Integer	The salary of an employee in the inclusive range [10000,100000]

Enter your Query here:

Question 2

A database contains a website's traffic data over a period of 30 days. The first table contains users' information including the user type (user, crawler, admin). The second table consists of

each visit to the website, the id of the visitor, time spent on the website in seconds. Write a SQL query to show the 3 day moving average of time spent on the website for users.user_type = 'user'.

Note: average time spent must have 4 decimal digits and rounded off (example: 5/3 = 1.6667, 5/" = 2.5000 and 1/3 = 0.33333).

Schema

users		
Name	Type	Description
id	INTEGER	The user's unique id. It is the primary key
name	VARCHAR	This is the name of the user
user_type	VARCHAR	Type of the user

traffic		
Name	Type	Description
user_id	INTEGER	Id of the user from the user table
visited_on	DATE	Date on which the user visited the website
time_spent	INTEGER	Time spent on the website in seconds

Enter your Query here:

Question 3

Company X has a record of its customers and orders. Write a query to print the names of those customer(s) and the price of their order(s), who have the maximum price order within the first 10 years of the first order.

Schema:

CUSTOMERS		
ID	STRING	ID of the customer. This is the primary key
NAME	STRING	Name of the customer
ORDER_ID	STRING	ID of the customer's order

ORDERS		
ID	STRING	ID of the order
PRICE	INTEGER	Price of the order
ORDER_DATE	DATE	Date of the order

Enter your Query here:

Question 4:

For the location with the most companies, write the names of the people and companies they work for. The output should consist of two columns: PEOPLE.NAME and COMPANIES.NAME.

Schema:

PEOPLE		
ID	STRING	Unique ID of the person
NAME	STRING	Name of the person
COMPANY_ID	STRING	ID of the company that person works for

COMPANIES		
ID	STRING	Unique ID of the company
NAME	STRING	NAME of the company
LOCATION_ID	STRING	ID of the location of the company

LOCATIONS		
ID	STRING	Unique ID of the location
NAME	STRING	Name of the location

Enter your Query here: