

1. Create a database named SQL_Lab. (5 pts)
2. Inside SQL_Lab, creates four tables **customers, orders , products, and sales**:(10 pts)
 - a. Customers table has three attributes: customer_id (Integer), customer_name(TEXT), and customer_age(Integer) Set customer_id as the primary key
 - b. Orders table has four attributes: order_id (Integer), customer_id (Integer), shippement_id (Integer), and quantity (Integer). Set order_id as the primary key
 - c. Products table has three attributes: product_id (Integer), product_name(TEXT), and product_category(TEXT). Set product_id as the primary key
 - d. Sales table has four attributes: sales_id (Integer) ,product_id (Integer), sales_person_name(TEXT), and sales_amount(Integer). Set sales_id and sales_person_name as the primary key (i.e., PRIMARY KEY("sales_id","sales_person_name"))
3. Insert tuples (rows) to each table as follows:(10 pts)

Customers

customer_id	customer_name	customer_age
100	John Svendson	35
200	Stephen Adams	25
300	Kari Pettersen	40
400	James McClure	30

Orders

order_id	customer_id	shippement_id	quantity
1000	100	5000	100
1001	400	5050	30
1002	100	5100	20
1003	200	5500	50

1004	200	5350	10
1005	300	5450	200

Products

product_id	product_name	product_category
12	Bike ABC	Road Bike
13	Bike DEF	Mountain Bike
14	Bike GHI	Road Bike
15	Bike JKL	Touring Bike

Sales

sales_id	sales_person_name	product_id	Sales_amount
10000	Joe Brown	12	1000
10001	Bill Johnson	12	5000
10002	Joe Brown	13	10000
10003	Bill Johnson	15	3000

- Write a SQL statement that finds the customers in customers table with age greater than 30.(5pts)
- Write a SQL statement that returns customer_name, order_id, quantity from customers, and orders tables respectively where customers.customer_id = orders.customer_id. (hint you will query two tables: customer and orders).(5pts)
- Write a SQL statement that returns the distinct list of product categories from the product table.(5pts)
- Write a SQL statement that returns sales_person_name, product_name, Sales_amount from product and sales tables for product with product id equal to 12. (hint you will query two tables: product and sales).(5pts)
- Write a SQL statement that updates the sales_person_name from Joe Brown to Sophie Thomas for sales_id 10000.(5pts)
- Write a function (**queryAPI**) that takes as input API resource and query parameter and prints status code issued by a server in response, the information of header, and key-value pairs holding various information returned from server.(25 pts)

API Resource: <https://api.datamuse.com/>

Queries: <https://www.datamuse.com/api/>

10. Write a Python program that uses BeautifulSoup to go to <https://news.google.com> and prints out all of the headlines on the page. Headlines are under <h4> heading. Then, write a variable length argument function (**find_headline_by_keyword**) that takes as input a list of headings and keywords and returns to a list of all the headlines that match all the keywords you provide. (Hint: You can use the all() function)(25 pts)