

SQL Practice

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```
create database practice_sql;
```

--CREATING TABLES FOR PRACTICE

=====

-- Create a table for storing customers

```
CREATE TABLE customers (
    customer_id INT AUTO_INCREMENT PRIMARY KEY,
    first_name VARCHAR(50) NOT NULL,
    last_name VARCHAR(50) NOT NULL,
    email VARCHAR(100) UNIQUE,
    phone_number VARCHAR(15)
);
```

-- Create a table for storing addresses

```
CREATE TABLE addresses (
    address_id INT AUTO_INCREMENT PRIMARY KEY,
    customer_id INT,
    street VARCHAR(100),
    city VARCHAR(50),
    state VARCHAR(50),
    postal_code VARCHAR(20),
    country VARCHAR(50),
    FOREIGN KEY (customer_id) REFERENCES customers(customer_id)
);
```

-- Create a table for storing orders

```
CREATE TABLE orders (
    order_id INT AUTO_INCREMENT PRIMARY KEY,
    customer_id INT,
    order_date DATE,
    total_amount DECIMAL(10, 2),
    FOREIGN KEY (customer_id) REFERENCES customers(customer_id)
);
```

-- Create a table for storing order items

```
CREATE TABLE order_items (
    order_item_id INT AUTO_INCREMENT PRIMARY KEY,
    order_id INT,
    product_name VARCHAR(100),
    quantity INT,
    unit_price DECIMAL(10, 2),
    FOREIGN KEY (order_id) REFERENCES orders(order_id)
);
```

--INSERTING DATA INTO TABLES TO PRACTICE

=====

-- Insert data into the customers table

```
INSERT INTO customers (first_name, last_name, email, phone_number)
VALUES
```

```
('Ramesh', 'Kumar', 'ramesh@example.com', '9876543210'),
('Suresh', 'Sharma', 'suresh@example.com', '8765432109'),
('Preeti', 'Patel', 'preeti@example.com', '7654321098'),
('Vikram', 'Singh', 'vikram@example.com', '6543210987'),
('Priya', 'Mishra', 'priya@example.com', '5432109876'),
('Amit', 'Verma', 'amit@example.com', '4321098765'),
('Anita', 'Reddy', 'anita@example.com', '3210987654'),
('Rajesh', 'Gupta', 'rajesh@example.com', '2109876543'),
('Deepak', 'Shah', 'deepak@example.com', '1098765432'),
('Neha', 'Jain', 'neha@example.com', '0987654321');
```

-- Insert data into the addresses table

```
INSERT INTO addresses (customer_id, street, city, state, postal_code, country)
VALUES
```

```
(1, '123 ABC Street', 'Mumbai', 'Maharashtra', '400001', 'India'),
(2, '456 XYZ Street', 'Delhi', 'Delhi', '110001', 'India'),
(3, '789 PQR Street', 'Bangalore', 'Karnataka', '560001', 'India'),
(4, '101 QWE Street', 'Kolkata', 'West Bengal', '700001', 'India'),
(5, '888 JKL Street', 'Chennai', 'Tamil Nadu', '600001', 'India'),
(6, '222 MNO Street', 'Hyderabad', 'Telangana', '500001', 'India'),
(7, '555 UVW Street', 'Pune', 'Maharashtra', '411001', 'India'),
(8, '999 XYZ Street', 'Ahmedabad', 'Gujarat', '380001', 'India'),
(9, '777 FGH Street', 'Jaipur', 'Rajasthan', '302001', 'India'),
(10, '333 IJK Street', 'Lucknow', 'Uttar Pradesh', '226001', 'India');
```

-- Insert data into the orders table

```
INSERT INTO orders (customer_id, order_date, total_amount)
```

```
VALUES
```

```
(1, '2024-03-15', 500.00),
(2, '2024-03-16', 750.00),
(3, '2024-03-17', 1000.00),
(4, '2024-03-18', 600.00),
(5, '2024-03-19', 900.00),
(6, '2024-03-20', 1200.00),
(7, '2024-03-21', 850.00),
(8, '2024-03-22', 950.00),
(9, '2024-03-23', 1100.00),
(10, '2024-03-24', 700.00);
```

-- Insert data into the order_items table

```
INSERT INTO order_items (order_id, product_name, quantity, unit_price)
```

```
VALUES
```

```
(1, 'Product A', 2, 100.00),
(1, 'Product B', 1, 150.00),
(2, 'Product C', 3, 200.00),
(3, 'Product D', 1, 500.00),
(4, 'Product E', 2, 200.00),
(4, 'Product F', 1, 400.00),
(5, 'Product G', 3, 300.00),
(5, 'Product H', 1, 600.00),
(6, 'Product I', 2, 250.00),
(6, 'Product J', 1, 450.00),
(7, 'Product K', 4, 100.00),
(8, 'Product L', 2, 475.00),
(9, 'Product M', 1, 800.00),
(9, 'Product N', 3, 350.00),
(10, 'Product O', 2, 150.00),
(10, 'Product P', 1, 700.00);
```

---PRACTICE QUESTIONS

Customers Table:

1. Retrieve all customers' first names and last names.
2. Get the email addresses of customers whose first name starts with 'R'.
3. Find the phone numbers of customers whose last name ends with 'a'.
4. Count the total number of customers.
5. Get the details (first name, last name, email, phone number) of the customer with the highest customer_id.
6. Find customers who have email addresses containing 'example'.
7. Retrieve customers who have phone numbers starting with '98'.
8. Get the number of distinct last names among customers.
9. Retrieve customers sorted by last name in ascending order.
10. Find customers who do not have an email address specified.

Addresses Table:

11. Get all addresses in Mumbai.
12. Find the postal code of the address with the highest address_id.
13. Retrieve addresses in Karnataka.
14. Count the total number of addresses.
15. Get the country of the address with the lowest address_id.
16. Find addresses in cities starting with 'D'.
17. Retrieve addresses with postal codes ending with '001'.
18. Get distinct states from the addresses table.
19. Find addresses in India.
20. Retrieve addresses sorted by city in descending order.

Orders Table:

21. Retrieve all order IDs.
22. Get the total amount of the order with the highest order_id.
23. Find orders placed on '2024-03-15'.
24. Count the total number of orders.
25. Get the order date of the order with the lowest order_id.
26. Find orders with a total amount greater than 1000.00.
27. Retrieve orders placed before '2024-03-20'.
28. Get the average total amount of all orders.
29. Find orders placed by customer_id 3.
30. Retrieve orders sorted by total amount in descending order.

****Order_Items Table:****

31. Retrieve all order item IDs.
32. Get the product names of items with a quantity greater than 2.
33. Find the total price of all items.
34. Count the total number of order items.
35. Get the quantity of the item with the highest order_item_id.
36. Find items with a unit price less than 200.00.
37. Retrieve items with a product name containing 'Product G'.
38. Get the sum of the quantities of all items.
39. Find items with a unit price greater than 500.00.
40. Retrieve items sorted by unit price in ascending order.

41. Retrieve all customers who have placed an order.
42. Get the total number of orders placed by each customer.
43. Find the customer who has placed the most orders.
44. Retrieve the average total amount of orders placed by each customer.
45. Get the customer who has spent the most on orders.
46. Find the number of orders placed in each city.
47. Retrieve the highest total amount of orders placed in a single order.
48. Get the average quantity of items per order.
49. Find the customer who has purchased the most items.
50. Retrieve orders placed by customers with a specific email domain (e.g., '@example.com').

51. Retrieve the first and last names of customers along with their corresponding addresses.
52. Get the total amount of each order along with the corresponding customer's first name.
53. Find the average total amount of orders placed in each city.
54. Retrieve orders along with the customer's phone number and address city.
55. Get the product names along with their corresponding unit prices.
56. Find the total amount of each order along with the customer's last name.
57. Retrieve orders placed by customers with a specific area code in their phone number.
58. Get the order date and total amount of orders placed in each state.
59. Find the customer who has placed the most expensive order.
60. Retrieve orders along with the customer's first name and last name.

61. Retrieve the first name and last name of customers who have placed orders.
62. Get the total amount of orders placed in each country.
63. Find the order date and total amount of orders placed by a specific customer.

64. Retrieve the first name and email address of customers who have placed orders.
 65. Get the order date and total amount of orders placed by a customer with a specific email address.
 66. Find the customer who has placed the least expensive order.
 67. Retrieve the first name and phone number of customers who have placed orders.
 68. Get the total number of orders placed in each month.
 69. Find the order date and total amount of orders placed by a customer with a specific phone number.
 70. Retrieve the first name and address city of customers who have placed orders.
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71. Retrieve the first name and last name of customers who have placed orders in Maharashtra.
 72. Get the total number of orders placed in each city.
 73. Find the order date and total amount of orders placed in Bangalore.
 74. Retrieve the first name and email address of customers who have placed orders in Delhi.
 75. Get the total number of orders placed in each state.
 76. Find the order date and total amount of orders placed in Tamil Nadu.
 77. Retrieve the first name and phone number of customers who have placed orders in Mumbai.
 78. Get the total number of orders placed in each country.
 79. Find the order date and total amount of orders placed in West Bengal.
 80. Retrieve the first name and address postal code of customers who have placed orders in Chennai.
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81. Retrieve the first name and last name of customers who have placed orders with a total amount greater than 1000.00.
 82. Get the total amount of orders placed by customers with a specific last name.
 83. Find the order date and total amount of orders placed by customers with a specific first name.
 84. Retrieve the first name and email address of customers who have placed orders with a total amount less than 500.00.
 85. Get the total amount of orders placed by customers with a specific phone number.
 86. Find the order date and total amount of orders placed by customers with a specific email address.
 87. Retrieve the first name and phone number of customers who have placed orders with a total amount greater than 750.00.
 88. Get the total amount of orders placed by customers with a specific address city.
 89. Find the order date and total amount of orders placed by customers with a specific address state.
 90. Retrieve the first name and address postal code of customers who have placed orders with a total amount less than 600.00.
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91. Retrieve the first name and last name of customers who have placed orders containing a specific product name.
 92. Get the total amount of orders placed by customers with a specific address postal code.
 93. Find the order date and total amount of orders placed by customers with a specific address country.
 94. Retrieve the first name and email address of customers who have placed orders containing a specific product name.
 95. Get the total amount of orders placed by customers with a specific email domain.
 96. Find the order date and total amount of orders placed by customers with a specific phone number area code.
 97. Retrieve the first name and phone number of customers who have placed orders containing a specific product name.
 98. Get the total amount of orders placed by customers with a specific last name initial.
 99. Find the order date and total amount of orders placed by customers with a specific first name initial.
 100. Retrieve the first name and address city of customers who have placed orders containing a specific product name.

101. Retrieve the first name and last name of customers who have not placed any orders.
 102. Get the total number of orders placed by customers with a specific email domain.
 103. Find the average total amount of orders placed by customers in each city.
 104. Retrieve orders placed on weekends (Saturday and Sunday).
 105. Get the total amount of orders placed by customers with a specific area code in their phone number.
 106. Find the order date and total amount of orders placed in each year.
 107. Retrieve the first name and last name of customers who have placed orders with a total amount greater than the average total amount of all orders.
 108. Get the total number of orders placed by customers in each month of a specific year.
 109. Find the order date and total amount of orders placed by customers with a specific last name.
 110. Retrieve the first name and email address of customers who have placed orders with a total amount less than the average total amount of all orders.
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111. Retrieve the first name and phone number of customers who have placed orders with a total amount greater than the average total amount of all orders.
 112. Get the total amount of orders placed by customers with a specific address city and state.
 113. Find the order date and total amount of orders placed by customers with a specific first name.
 114. Retrieve the first name and address postal code of customers who have placed orders with a total amount less than the average total amount of all orders.
 115. Get the total amount of orders placed by customers with a specific last name initial.
 116. Find the order date and total amount of orders placed by customers with a specific email address.
 117. Retrieve the first name and phone number of customers who have placed orders with a total amount greater than the average total amount of all orders.
 118. Get the total amount of orders placed by customers with a specific address city and country.
 119. Find the order date and total amount of orders placed by customers with a specific phone number.
 120. Retrieve the first name and address city of customers who have placed orders with a total amount greater than the average total amount of all orders.
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121. Retrieve the first name and last name of customers who have placed orders with a total amount less than the average total amount of all orders.
 122. Get the total amount of orders placed by customers with a specific address state and country.
 123. Find the order date and total amount of orders placed by customers with a specific address postal code.
 124. Retrieve the first name and email address of customers who have placed orders with a total amount greater than the average total amount of all orders.
 125. Get the total amount of orders placed by customers with a specific email domain.
 126. Find the order date and total amount of orders placed by customers with a specific phone number area code.
 127. Retrieve the first name and phone number of customers who have placed orders with a total amount less than the average total amount of all orders.
 128. Get the total amount of orders placed by customers with a specific address city, state, and country.
 129. Find the order date and total amount of orders placed by customers with a specific last name initial.
 130. Retrieve the first name and address postal code of customers who have placed orders with a total amount greater than the average total amount of all orders.
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131. Retrieve the first name and last name of customers who have placed orders with a total amount greater than the average total amount of all orders.
 132. Get the total amount of orders placed by customers with a specific address city, state, and country.
 133. Find the order date and total amount of orders placed by customers with a specific email domain.
 134. Retrieve the first name and email address of customers who have placed orders with a total amount less

than the average total amount of all orders.

135. Get the total amount of orders placed by customers with a specific phone number area code.

136. Find the order date and total amount of orders placed by customers with a specific address city and state.

137. Retrieve the first name and phone number of customers who have placed orders with a total amount greater than the average total amount of all orders.

138. Get the total amount of orders placed by customers with a specific address city, state, and postal code.

139. Find the order date and total amount of orders placed by customers with a specific address city and postal code.

140. Retrieve the first name and address country of customers who have placed orders with a total amount less than the average total amount of all orders.

141. Retrieve the first name and last name of customers who have placed orders with a total amount less than the average total amount of all orders.

142. Get the total amount of orders placed by customers with a specific address state, postal code, and country.

143. Find the order date and total amount of orders placed by customers with a specific address state and postal code.

144. Retrieve the first name and email address of customers who have placed orders with a total amount greater than the average total amount of all orders.

145. Get the total amount of orders placed by customers with a specific address city, postal code, and country.

146. Find the order date and total amount of orders placed by customers with a specific address city, postal code, and country.

147. Retrieve the first name and phone number of customers who have placed orders with a total amount less than the average total amount of all orders.

148. Get the total amount of orders placed by customers with a specific address state, postal code, and country.

149. Find the order date and total amount of orders placed by customers with a specific address city, state, and postal code.

150. Retrieve the first name and address city of customers who have placed orders with a total amount greater than the average total amount of all orders.

151. Retrieve the first name and last name of customers who have placed orders with a total amount greater than the average total amount of all orders.

152. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.

153. Find the order date and total amount of orders placed by customers with a specific address city, state, and country.

154. Retrieve the first name and email address of customers who have placed orders with a total amount less than the average total amount of all orders.

155. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.

156. Find the order date and total amount of orders placed by customers with a specific address city, postal code, and country.

157. Retrieve the first name and phone number of customers who have placed orders with a total amount less than the average total amount of all orders.

158. Get the total amount of orders placed by customers with a specific address state, postal code, and country.

159. Find the order date and total amount of orders placed by customers with a specific address city, state, and postal code.

160. Retrieve the first name and address country of customers who have placed orders with a total amount

greater than the average total amount of all orders.

161. Retrieve the first name and last name of customers who have placed orders with a total amount less than the average total amount of all orders.

162. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.

163. Find the order date and total amount of orders placed by customers with a specific address city, state, and country.

164. Retrieve the first name and email address of customers who have placed orders with a total amount greater than the average total amount of all orders.

165. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.

166. Find the order date and total amount of orders placed by customers with a specific address city, postal code, and country.

167. Retrieve the first name and phone number of customers who have placed orders with a total amount less than the average total amount of all orders.

168. Get the total amount of orders placed by customers with a specific address state, postal code, and country.

169. Find the order date and total amount of orders placed by customers with a specific address city, state, and postal code.

170. Retrieve the first name and address country of customers who have placed orders with a total amount greater than the average total amount of all orders.

171. Retrieve the first name and last name of customers who have placed orders with a total amount greater than the average total amount of all orders.

172. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.

173. Find the order date and total amount of orders placed by customers with a specific address city, state, and country.

174. Retrieve the first name and email address of customers who have placed orders with a total amount less than the average total amount of all orders.

175. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.

176. Find the order date and total amount of orders placed by customers with a specific address city, postal code, and country.

177. Retrieve the first name and phone number of customers who have placed orders with a total amount less than the average total amount of all orders.

178. Get the total amount of orders placed by customers with a specific address state, postal code, and country.

179. Find the order date and total amount of orders placed by customers with a specific address city, state, and postal code.

180. Retrieve the first name and address country of customers who have placed orders with a total amount greater than the average total amount of all orders.

181. Retrieve the first name and last name of customers who have placed orders with a total amount less than the average total amount of all orders.

182. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.

183. Find the order date and total amount of orders placed by customers with a specific address city, state, and country.

184. Retrieve the first name and email address of customers who have placed orders with a total amount greater than the average total amount of all orders.
185. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.
186. Find the order date and total amount of orders placed by customers with a specific address city, postal code, and country.
187. Retrieve the first name and phone number of customers who have placed orders with a total amount less than the average total amount of all orders.
188. Get the total amount of orders placed by customers with a specific address state, postal code, and country.
189. Find the order date and total amount of orders placed by customers with a specific address city, state, and postal code.
190. Retrieve the first name and address country of customers who have placed orders with a total amount greater than the average total amount of all orders.

191. Retrieve the first name and last name of customers who have placed orders with a total amount greater than the average total amount of all orders.
192. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.
193. Find the order date and total amount of orders placed by customers with a specific address city, state, and country.
194. Retrieve the first name and email address of customers who have placed orders with a total amount less than the average total amount of all orders.
195. Get the total amount of orders placed by customers with a specific address city, state, postal code, and country.
196. Find the order date and total amount of orders placed by customers with a specific address city, postal code, and country.
197. Retrieve the first name and phone number of customers who have placed orders with a total amount less than the average total amount of all orders.
198. Get the total amount of orders placed by customers with a specific address state, postal code, and country.
199. Find the order date and total amount of orders placed by customers with a specific address city, state, and postal code.
200. Retrieve the first name and address country of customers who have placed orders with a total amount greater than the average total amount of all orders.