

**A Business Scenario:**

“Finch Street Pizza Corner” delivers a variety of pizzas to its customers. The store delivers pizzas of various sizes with various toppings. Pizzas can be delivered through different modes. To automate process of pizza delivery to their customers, the developers of the application use the following database.

**Table: customer**

The table **customer** provides the details about the customers.

Column name	Data type and size	Constraints	Description
custid	VARCHAR2(6)	PRIMARY KEY, CHECK	unique id for the customer, should start with 'C'
custname	VARCHAR2(25)	NOT NULL	name of the customer
mobilenumber	NUMBER(10)	NOT NULL	mobile number of the customer
emailid	VARCHAR2(25)	NOT NULL	emailid of the customer

**Table: pizza**

The table **pizza** table provides details about varieties of pizza along with their price available in Finch Store.

Column name	Data type and size	Constraints	Description
pizzaid	VARCHAR2(10)	PRIMARY KEY, CHECK	unique id for every pizza, should start with 'P'
pizzaname	VARCHAR2(50)	NOT NULL	name of the pizza
pizzasize	CHAR(1)	NOT NULL, CHECK	pizzasize should be 'R', 'M' or 'L'. 'R'- Regular, 'M'- Medium and 'L'- Large
pizzarate	NUMBER	NOT NULL	price for each pizza



**Table: topping**

The table **topping** provides details about the toppings along with their prices available in Finch Store.

Column name	Data type and size	Constraints		Description
toppingid	VARCHAR2(10)	PRIMARY KEY, CHECK		unique id for every topping, should start with 'T'
toppingname	VARCHAR2(50)	NOT NULL	UNIQUE	name of the topping
type	CHAR(4)	NOT NULL, CHECK		type should be 'NV' or 'V'. 'NV'- Non-Veg and 'V'- Veg
toppingrate	NUMBER	NOT NULL		rate of the topping

**Table: orders**

The table **orders** details about the orders placed by customers with Finch store.

Column name	Data type and size	Constraints		Description
orderid	VARCHAR2(10)	PRIMARY KEY, CHECK		unique id of the order placed, should start with 'O'
custid	VARCHAR2(6)	FOREIGN KEY		existing <b>custid</b> of the <b>customer</b> table
pizzaid	VARCHAR2(10)	FOREIGN KEY		existing <b>pizzaid</b> of the <b>pizza</b> table
toppingid	VARCHAR2(10)	FOREIGN KEY		existing <b>toppingid</b> of the <b>topping</b> table
deliverymode	CHAR(4)	CHECK		delivery mode should be 'TA', 'HD' or 'D'. 'TA'- Take Away, 'HD'- Home Delivery and 'D'- Dine
				amount of the order placed is



amount	NUMBER	NOT NULL	amount of the order placed is calculated based on pizzaid, toppingid and deliverymode
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Sample data for **customer** table:

custid	custname	mobilenumber	emailid
C101	Samuel	9635268900	samuel@abc.com
C102	Lisa	9639868987	lisa@abc.com
C103	George	9635268947	george@ghc.com
C104	John	9635268586	john@xyz.com
C105	Elizabeth	9635268231	elizabeth@abc.com
C106	Jack	9635268232	jack@abc.com

Sample data for **pizza** table:

pizzaid	pizzaname	pizzasize	pizzarate
P101	Margherita	R	85
P102	Spicy Triple Tango	M	220
P103	Chicken Mexicana	L	268
P104	Cloud Nine	R	245
P105	Creamy Chicken Carbonara	M	485
P106	Garlic Prawn	L	495

Sample data for **topping** table:

toppingid	toppingname	type	toppingrate
T101	Single Cheese Topping	V	50
T102	Golden Corn Jalapeno	V	100



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toppingid	toppingname	type	toppingrate
T101	Single Cheese Topping	V	50
T102	Golden Corn Jalapeno	V	100
T103	Spicy Chicken Fresh Herbs	NV	150
T104	Hot N Spicy Chicken	NV	200

Sample data for **orders** table:

orderid	custid	pizzaid	toppingid	deliverymode	amount
O101	C101	P101	T101	D	135
O102	C105	P102	T102	D	320
O103	C106	P103	T103	TA	428
O104	C101	P103	T103	HD	448
O105	C102	P105	T103	HD	665
O106	C103	P102	T103	HD	400
O107	C101	P102	T101	D	270
O108	C105	P103	T102	HD	398
O109	C104	P104	T103	D	395
O110	C105	P105	T101	TA	545

Write the SQL queries for the following problems:

[20 marks]

**Important Note:** For the given requirements, display UNIQUE records wherever applicable

A. Display the numeric part of pizzaid as “PIZZAID” (column alias) and **pizzaname** of Regular or Medium sized pizza(s) whose price is more than 200.

For the given sample data, following record is part of the output along with other record(s).



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For the given sample data, following record is part of the output along with other record(s).

PIZZAID	PIZZANAME
105	Creamy Chicken Carbonara

**Note:** Type the solution in *dbms\_solA.sql* file

[2 Marks]

- B. Display **custid**, **pizzaid** and **amount** of the pizza orders placed by the customer(s) having ‘a’ as the second character in their name or their emailid has 12 characters. Perform **case insensitive** search for custname.

For the given sample data, following records are part of the output along with other record(s).

CUSTID	PIZZAID	AMOUNT
C101	P102	270
C106	P103	428
C102	P105	665

**Note:** Type the solution in *dbms\_solB.sql* file

[2 Marks]

- C. Display **custid**, **deliverymode** and **amount** of the pizzaorders that have amount greater than the *average* amount of all customers.

For the given sample data, following records are part of the output along with other record(s).

CUSTID	DELIVERYMODE	AMOUNT
C102	HD	665
C105	TA	545



CUSTID	DELIVERYMODE	AMOUNT
C102	HD	665
C105	TA	545

**Note:** Type the solution in *dbms\_solC.sql* file

[2 Marks]

- D. Display **orderid** and **pizzaid** for the orders which has same pizza with same topping but delivered to the customers through different modes.

For the given sample data, following is the expected output.

ORDERID	PIZZAID
O104	P103
O103	P103

**Note:** Type the solution in *dbms\_solD.sql* file

[2 Marks]

- E. For every pizza, display **pizzaid**, custid as “**CUSTOMER**” (column alias) and toppingid as “**TOPPING**” (column alias). Display ‘NA’ under **CUSTOMER** and ‘NT’ under **TOPPING** if the pizza is not ordered by any customer. Display ‘NT’ under **TOPPING** if the pizza is ordered by the customer with Non-Veg topping.

For the given sample data, following records are part of the output along with other record(s).

PIZZAID	CUSTOMER	TOPPING
P102	C103	NT
P105	C105	T101
P106	NA	NT

**Note:** Type the solution in *dbms\_solE.sql* file

[3 Marks]

- F. Display the concatenated value of custid with hyphen '-' followed by custname as “**CUSTDETAILS**” (column alias) and **emailid** of the customers who have ordered pizza and got it delivered through every delivery mode.



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For the given sample data, following is the expected output.

CUSTDETAILS	EMAILID
C105-Elizabeth	elizabeth@abc.com

**Note:** Type the solution in *dbms\_solF.sql* file

[3 Marks]

- G. Display **custid**, **custname** and **mobilenumber** of the customer(s) who have ordered Medium size pizzas more than Regular size pizzas, such orders should be placed by the same customer. For the given sample data, following records are part of the output along with other record(s).

CUSTID	CUSTNAME	MOBILENUMBER
C103	George	9635268947
C102	Lisa	9639868987

**Note:** Type the solution in *dbms\_solG.sql* file

[3 Marks]

- H. Display **orderid**, **custid** and **pizzaid** of the pizza orders of Large size pizza with topping of toppingrate less than 200 and was ordered for Home Delivery.

For the given sample data, following is the expected output.

ORDERID	CUSTID	PIZZAID
O108	C105	P103
O104	C101	P103

Write the query using Correlated Subquery concept only.



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CUSTDETAILS	EMAILID
C105-Elizabeth	elizabeth@abc.com

**Note:** Type the solution in *dbms\_solF.sql* file

[3 Marks]

- G. Display **custid**, **custname** and **mobilenumber** of the customer(s) who have ordered Medium size pizzas more than Regular size pizzas, such orders should be placed by the same customer. For the given sample data, following records are part of the output along with other record(s).

CUSTID	CUSTNAME	MOBILENUMBER
C103	George	9635268947
C102	Lisa	9639868987

**Note:** Type the solution in *dbms\_solG.sql* file

[3 Marks]

- H. Display **orderid**, **custid** and **pizzaid** of the pizza orders of Large size pizza with topping of toppingrate less than 200 and was ordered for Home Delivery.

For the given sample data, following is the expected output.

ORDERID	CUSTID	PIZZAID
O108	C105	P103
O104	C101	P103

**Write the query using Correlated Subquery concept only.**

**Note:** Type the solution in *dbms\_solH.sql* file

[3 Marks]



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