**PSG College of Technology - Coimbatore**

**Department of Applied Mathematics and Computational Sciences**

**3rd Semester MSc SS**

**20XW38 - RDBMS LAB - PROBLEM SHEET – 9   (PL SQL )**

Consider the given database consisting of  four relations:

    Person(name, age, gender)       // name is a key

 Frequents(name, pizzeria)       // [name,pizzeria] is a key .

    Eats(name, pizza)               // [name,pizza] is a key

    Serves(pizzeria, pizza, price)  // [pizzeria,pizza] is a key

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| Person   |  |  |  | | --- | --- | --- | | **name** | **age** | **gender** | | Amy | 16 | female | | Ben | 21 | male | | Cal | 33 | male | | Dan | 13 | male | | Eli | 45 | male | | Fay | 21 | female | | Gus | 24 | male | | Hil | 30 | female | | Ian | 18 | male | | Frequents   |  |  | | --- | --- | | **name** | **pizzeria** | | Amy | Pizza Hut | | Ben | Chicago Pizza | | Ben | Pizza Hut | | Cal | New York Pizza | | Cal | Straw Hat | | Dan | New York Pizza | | Dan | Straw Hat | | Eli | Chicago Pizza | | Eli | Straw Hat | | Fay | Dominos | | Fay | Little Caesars | | Gus | Chicago Pizza | | Gus | Pizza Hut | | Hil | Dominos | | Hil | Pizza Hut | | Hil | Straw Hat | | Ian | Dominos | | Ian | New York Pizza | | Ian | Straw Hat | |

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| **Eats**   |  |  | | --- | --- | | **name** | **pizza** | | Amy | mushroom | | Amy | pepperoni | | Ben | cheese | | Ben | pepperoni | | Cal | supreme | | Dan | cheese | | Dan | mushroom | | Dan | pepperoni | | Dan | sausage | | Dan | supreme | | Eli | cheese | | Eli | supreme | | Fay | mushroom | | Gus | cheese | | Gus | mushroom | | Gus | supreme | | Hil | cheese | | Hil | supreme | | Ian | pepperoni | | Ian | supreme | | **Serves**   |  |  |  | | --- | --- | --- | | **pizzeria** | **pizza** | **price** | | Chicago Pizza | cheese | 7.75 | | Chicago Pizza | supreme | 8.5 | | Dominos | cheese | 9.75 | | Dominos | mushroom | 11 | | Little Caesars | cheese | 7 | | Little Caesars | mushroom | 9.25 | | Little Caesars | pepperoni | 9.75 | | Little Caesars | sausage | 9.5 | | New York Pizza | cheese | 7 | | New York Pizza | pepperoni | 8 | | New York Pizza | supreme | 8.5 | | Pizza Hut | cheese | 9 | | Pizza Hut | pepperoni | 12 | | Pizza Hut | sausage | 12 | | Pizza Hut | supreme | 12 | | Straw Hat | cheese | 9.25 | | Straw Hat | pepperoni | 8 | | Straw Hat | sausage | 9.75 | |

Write **interactive** PL-SQL Block/Stored Procedures/Functions  to perform the following. You should use only JOINS for retrieval operations. No subqueries permitted. Use implicit and explicit cursors wherever necessary.

1. Create block to display all the rows in the person table.

SET SERVEROUTPUT ON;

declare

cursor c1 is

select \* from Person;

begin

for i in c1

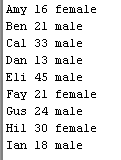
loop

dbms\_output.put\_line(i.name||' '||i.age||' '||i.gender||' ');

end loop;

end;

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1. Create a PL/SQL block that fetches and displays the first  three preferred  pizzas. Order your output so that the pizza with the highest count is displayed first.

declare

c int:=1;

begin

for i in(select pizza from eats group by pizza order by count(\*) desc)

loop

dbms\_output.put\_line(i.pizza);

c:=c+1;

if c>3

then exit;

end if;

end loop;

end;

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1. To insert records into person and serves.
2. Obtain the pizza as input from the user and find the number of pizzerias supplying it using implicit curser. If it has more than 3 suppliers, list pizzeria and price.
3. To increase the price of  Dominos pizza by 10% . And display the number of records updated. (implicit cursor)
4. Find all pizzas eaten by at least one female over the age of 20.
5. Find the names, age of all females who eat at least one pizza served by Straw Hat.
6. Find all pizzerias that serve at least one pizza for less than $10 that either Amy or Fay (or both) eat.
7. Find all pizzas that are eaten only by people younger than 24, or that cost less than $10 everywhere they're served.
8. Find the age of the oldest person (or people) who eat mushroom pizza.
9. Find all pizzerias that serve every pizza eaten by people over 30.
10. Find all pizzerias where pepperoni pizza cost less than supreme pizza in the Pizza Hut pizzeria.
11. Determine the average price of pizza for every pizzas but only for those pizzas what is served at least three pizzerias!
12. Find the pizzeria where the average price of the pizzas is the highest.
13. Modify the  procedure (7).  to find the names of all MALES  who eat at least one pizza served by Straw Hat.( Access  tuples of   user\_procedures  for updating the above procedure)
14. Write a query against a Data Dictionary view to show you a list of procedures you own.
15. Find the pizzeria serving the cheapest pepperoni pizza. In the case of ties, return all of the cheapest-pepperoni pizzerias.