**Pune Institute of Computer Technology**

**Department of Information Technology**

**Academic Year:2022-23 (Sem-I)**

**Subject:-LP-I(ADBMS)**

**Exercise II**

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Q1. Create Order Management System using MongoDB and Implement Following Statements

1. Display the name of customers who have maximum orders.
2. Display the Mob No of customers who have highest Buying Total.
3. Display how many customers are there in customer collection.
4. Using collection of customer, and $exists, tell me how many customers belongs from pune city.
5. Find the customer who purchased shoes and cloth product.
6. Find the top 10 buyers.
7. Display all the orders where total amount is >1000.
8. Display All the customers with corresponding buying price.

Q.2 Create **restaurants Management System** using MongoDB with following document fields

{

"address": {

"building": "1007", "coord": [ -73.856077, 40.848447],

"street": "Tilak Road", "zipcode": "411046"

},

"area": "Pune", "cuisine": "Bakery",

"grades": [

{ "date": { "$date": 1393804800000 }, "grade": "A", "score": 2 },

{ "date": { "$date": 1378857600000 }, "grade": "A", "score": 6 },

{ "date": { "$date": 1358985600000 }, "grade": "A", "score": 10 },

{ "date": { "$date": 1322006400000 }, "grade": "A", "score": 9 },

{ "date": { "$date": 1299715200000 }, "grade": "B", "score": 14 }

],

"name": "Jai Bake Shop", "restaurant\_id": "30075445"

}

Implement Following Statements

1. Write a MongoDB query to display all the documents in the collection restaurants
2. Write a MongoDB query to display the fields restaurant\_id, name, area and cuisine for all the documents in the collection restaurant.
3. Write a MongoDB query to display the fields restaurant\_id, name, area and cuisine, but exclude the field \_id for all the documents in the collection restaurant.
4. Write a MongoDB query to display the fields restaurant\_id, name, area and zip code, but exclude the field \_id for all the documents in the collection restaurant.
5. Write a MongoDB query to display all the restaurant which is in the borough Bronx.
6. Write a MongoDB query to display the first 5 restaurant which is in the area pune.
7. Write a MongoDB query to display the next 5 restaurants after skipping first 5 which are in the area pune.
8. Write a MongoDB query to find the restaurants who achieved a score more than 90.
9. Write a MongoDB query to find the restaurants that achieved a score, more than 80 but less than 100.
10. Write a MongoDB query which will select all documents in the restaurants collection where the coord field value is Double.
11. Write a MongoDB query which will select the restaurant Id, name and grades for those restaurants which returns 0 as a remainder after dividing the score by 7.

Q.3) Consider following and design MongoDB Database

Suppliers (*sid:* integer, *sname:* string, *city:* string)

Parts (*pid:* integer, *pname:* string, *color:* string)

Orders (*sid:* integer, *pid:* integer, *quantity:* integer)

Implement following:

1. For each supplier from whom all of the following things have been ordered in quantities of at least 150, print the name and city of the supplier: a blue gear, a red crankshaft, and a yellow bumper.
2. Print the names of the purple parts that have been ordered from suppliers located in Mumbai, Pune, or Kolhapur.
3. Print the names and cities of suppliers who have an order for more than 150 units of a yellow or purple part.
4. Print the *pid*s of parts that have been ordered from a supplier named Amer but have also been ordered from some supplier with a different name in a quantity that is greater than the Amer order by at least 100 units.
5. Print the names of the suppliers located in Kolhapur.
6. Print all available information about suppliers that supply green parts.
7. For each order of a red part, print the quantity and the name of the part.
8. Print the names of the parts that come in both blue and green. (Assume that no two distinct parts can have the same name and color.)
9. Print (in ascending order alphabetically) the names of parts supplied both by a Madison supplier and by a Berkeley supplier.
10. Print the names of parts supplied by a Mumbaikar supplier, but not supplied by any Punekar supplier. Could there be any duplicates in the answer?
11. Print the total number of orders.
12. Print the largest quantity per order for each *sid* such that the minimum quantity per order for that supplier is greater than 100.