

VirtuChef: Your Cloud Kitchen Experience

Milestone: Implementation in NoSQL

Group 3

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Percentage of Effort Contributed by Student 1: 50

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Signature of Student 1: Samyuktha Kapoor Rajesh Kapoor

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1. Find all chefs who specialize in a specific cuisine, say "French Cuisine":

Query:

```
db.Chef.find({Specialization: "French Cuisine"})
```

Output:

```
db.Chef.find({ Specialization: "French Cuisine"
{
  _id: ObjectId('661af9163caf3fa6a6056e30'),
  E_ID: 1,
  Specialization: 'French Cuisine',
  Signature_Dishes: 'Coq au vin, Bouillabaisse'
}
```

2. Get a list of all menu items along with their ingredients:

Query:

```
db.Menuitem.aggregate([{$lookup: { from: "Ingredients", localField: "ingredient_ids",
foreignField: "_id", as: "ingredients_info" } }])
```

Output:

```
{
  _id: ObjectId('661b02223caf3fa6a605729b'),
  Menu_ID: 500,
  Item: 'Bruschetta',
  Category: 'Appetizer',
  ingredients_info: []
}
{
  _id: ObjectId('661b02223caf3fa6a605729c'),
  Menu_ID: 501,
  Item: 'Caesar Salad',
  Category: 'Appetizer',
  ingredients_info: []
}
{
  _id: ObjectId('661b02223caf3fa6a605729d'),
  Menu_ID: 502,
  Item: 'Spring Rolls',
  Category: 'Appetizer',
  ingredients_info: []
}
```

3. Find the top 5 most common cuisines by the number of chefs who can cook them:

Query:

```
db.Orders.aggregate([{$group: {_id: "$delivery_person_id", count: { $sum: 1 }}}])
```

Output:

```
< {
  _id: 'Island Cuisine',
  chefCount: 2
}
{
  _id: 'Fusion Cuisine',
  chefCount: 2
}
{
  _id: 'Polish Cuisine',
  chefCount: 1
}
{
  _id: 'Spanish Cuisine',
  chefCount: 1
}
{
  _id: 'Detox Cuisine',
  chefCount: 1
}
```

4. Joining Chefs with Their Signature Dishes

Query:

```
db.Chef.aggregate([{$lookup: {from: "Menuitem",
  localField: "signature_dish_ids",
  foreignField: "_id",
  as: "signature_dishes" }},
{$project: {_id: 1, Specialization: 1, "signature_dishes.name": 1}}])
```

Output:

```
< {
  _id: ObjectId('661af9163caf3fa6a6056e37'),
  Specialization: 'Korean Cuisine',
  signature_dishes: []
}
{
  _id: ObjectId('661af9163caf3fa6a6056e35'),
  Specialization: 'Thai Cuisine',
  signature_dishes: []
}
{
  _id: ObjectId('661af9163caf3fa6a6056e32'),
  Specialization: 'Indian Cuisine',
  signature_dishes: []
}
```

5. Find all suppliers that provide dairy products:

Query:

```
db.Supply.find({ "SupplierName": /Dairy/ })
```

Output:

```
{
  _id: ObjectId('661b02483caf3fa6a6057371'),
  S_ID: 11,
  SupplierName: 'Deluxe Dairy',
  Address: '258 Pineapple Lane',
  Contact: 7778889999
}
{
  _id: ObjectId('661b02483caf3fa6a605738d'),
  S_ID: 39,
  SupplierName: 'Dairy Delights',
  Address: '963 Apple Street',
  Contact: 4445556666
}
```

6. Retrieve all suppliers located on 'Mulberry Avenue':

Query:

```
db.Supply.find({ "Address": /Mulberry Avenue/ })
```

Output:

```
{
  _id: ObjectId('661b02483caf3fa6a6057371'),
  S_ID: 11,
  SupplierName: 'Deluxe Dairy',
  Address: '258 Pineapple Lane',
  Contact: 7778889999
}
{
  _id: ObjectId('661b02483caf3fa6a605738d'),
  S_ID: 39,
  SupplierName: 'Dairy Delights',
  Address: '963 Apple Street',
  Contact: 4445556666
}
{
  _id: ObjectId('661b02483caf3fa6a60573a4'),
  S_ID: 62,
  SupplierName: 'Dairy Direct',
  Address: '963 Apple Street',
  Contact: 4445556666
}
```

7. Update the contact number for 'Ocean Catch Seafood':

Query:

```
db.Supply.updateOne(
  { "SupplierName": "Ocean Catch Seafood" },
  { $set: { "Contact": "NewContactNumber" } }
)
```

Output:

```
> db.Supply.updateOne(
  { "SupplierName": "Ocean Catch Seafood" },
  { $set: { "Contact": "NewContactNumber" } }
)
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

8. Add a new supplier to the database:

```
db.Supply.insertOne({ "s_ID": NewUniqueSupplierID,
  "SupplierName": "New Supplier Name",
  "Address": "New Supplier Address",
  "Contact": "New Supplier Contact"
})
```

```
> db.Supply.insertOne({
  "s_ID": 3453546,
  "SupplierName": "Sam's Bakery",
  "Address": "9 Stedman Boston",
  "Contact": "98731489"
})
< {
  acknowledged: true,
  insertedId: ObjectId('661c71b1f09d63c2bbbe8965')
}
```