

Project Phase 4

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Review Portal Application Report

Introduction

The Review Portal Application serves as a user interface to interact with MongoDB Atlas, allowing users to manage and manipulate data in collections dedicated to reviews.

The system was developed using Python, integrating MongoDB's functionalities to perform operations like creating, reading, updating, and deleting (CRUD) data.

Purpose

The purpose of this project was to create an interactive system enabling users to:

Perform CRUD operations on two distinct collections: "Film Reviews" and "TV Show Reviews".

Utilize a command-line interface (CLI) for input and interaction.

System Overview

Technologies Used

Programming Language: Python

Database: MongoDB Atlas

Python Libraries: pymongo

Functionality

The application encompasses various functions corresponding to CRUD operations:

Create Collection: Allows the creation of a new collection.

Read All Data: Retrieves and displays all documents in a collection.

Read Filtered Data: Retrieves specific documents based on user-defined filters.

Insert Data: Enables users to add new reviews to the collections.

Delete Data: Removes specific records from a collection.

Update Data: Modifies existing records in the collections.

Workflow Example

An example workflow of the system interaction was demonstrated as follows:

User Input:

Identification: User enters their unique ID.

Action Selection: Chooses from a set of actions (e.g., Create, Read, Update, Delete).

Action Execution:

Based on the selection, the user interacts with the desired functionality.

For instance, inserting a review in a chosen collection by providing necessary data fields.

Result Confirmation:

Conclusion

The Review Portal Application successfully integrates MongoDB Atlas functionalities to provide a user-friendly interface for managing reviews. The application's modular design allows seamless interaction and manipulation of data within the collections.

Future Enhancements

Potential enhancements for future iterations of the application may include:

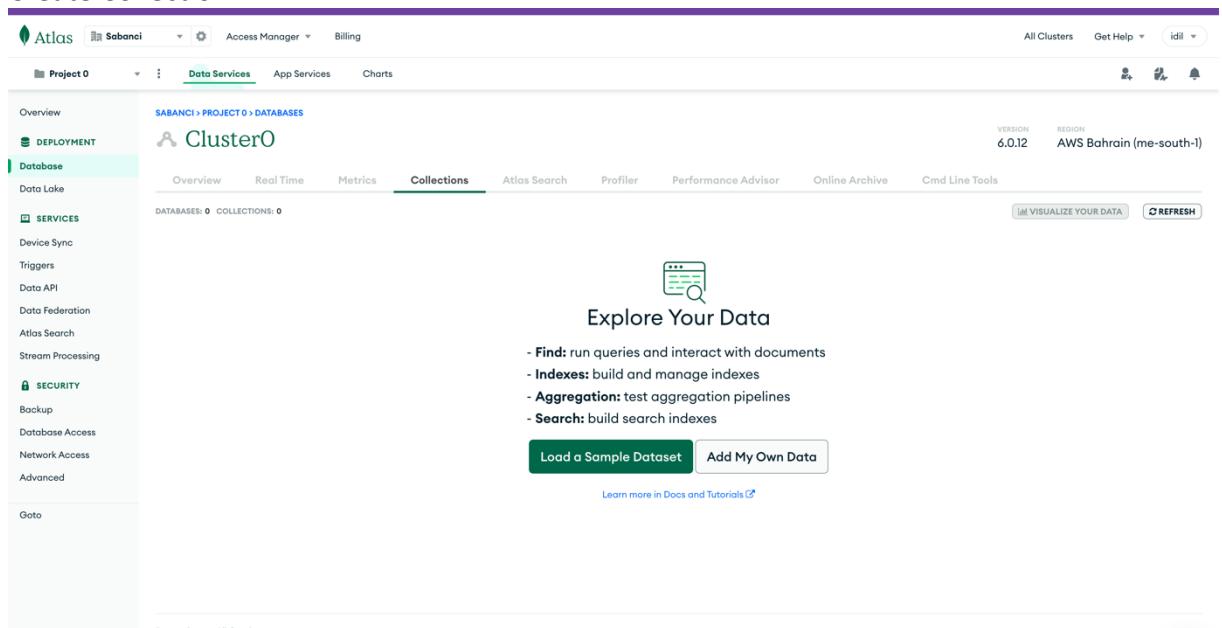
Implementing a graphical user interface (GUI) for improved user experience.

Adding user authentication and authorization for secure access.

Enhancing error handling and validation mechanisms.

This report structure offers an overview of the project's objectives, functionalities, workflow, and demonstration of key features through screenshots. You can elaborate further on specific functionalities, challenges faced during development, and potential future improvements based on your project's scope and requirements.

1- Create Collection:



```
Connection established to your db
Welcome to Review Portal!
Please enter your user id: 100
Please pick the option that you want to proceed.
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 1
1- Product Reviews
2- Supplier Reviews
Enter the option you want to create: 1
Collection 'Product Reviews' created.
```

```
What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 1
1- Product Reviews
2- Supplier Reviews
Enter the option you want to create: 2
Collection 'Supplier Reviews' created.
```

```
What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: █
```

SABANCI > PROJECT 0 > DATABASES

ClusterO

VERSION 6.0.12 REGION AWS Bahrain (me-sou)

Overview Real Time Metrics Collections Atlas Search Profiler Performance Advisor Online Archive Cmd Line Tools

DATABASES: 1 COLLECTIONS: 2

+ Create Database

Search Namespaces

cluster0

Product Reviews

Supplier Reviews

cluster0.Product Reviews

STORAGE SIZE: 4KB LOGICAL DATA SIZE: 0B TOTAL DOCUMENTS: 0 INDEXES TOTAL SIZE: 4KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOCUMENT

Filter Type a query: { field: 'value' }

Reset Apply Options

QUERY RESULTS: 0

2- Read All Data

Filter Type a query: { field: 'value' }

Reset Apply Options

QUERY RESULTS: 1-20 OF 20

```
_id: ObjectId('6598428295dc89fe055fb3f8')
user_id: "User_1"
product_rating: 4
product_comments: "Great product, meets expectations."
```

```
_id: ObjectId('6598428295dc89fe055fb3f9')
user_id: "User_2"
product_rating: 3
product_comments: "Average product quality, needs improvement."
```

```
_id: ObjectId('6598428295dc89fe055fb3fa')
user_id: "User_3"
product_rating: 5
product_comments: "Excellent product, exceeded expectations."
```

```
_id: ObjectId('6598428295dc89fe055fb3fb')
user_id: "User_4"
product_rating: 2
```

QUERY RESULTS: 1-10 OF 10



```
_id: ObjectId('659842da95dc89fe055fc7c4')
user_id: "User_1"
supplier_rating: 4
supplier_comments: "Good service overall, timely delivery."
```



```
_id: ObjectId('659842da95dc89fe055fc7c5')
user_id: "User_2"
supplier_rating: 3
supplier_comments: "Average service quality, room for improvement."
```

```
_id: ObjectId('659842da95dc89fe055fc7c6')
user_id: "User_3"
supplier_rating: 5
supplier_comments: "Excellent service, exceeded expectations."
```

```
_id: ObjectId('659842da95dc89fe055fc7c7')
user_id: "User_4"
supplier_rating: 2
```

tlas Blog Contact Sales



```
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 2
1- Product Reviews
2- Supplier Reviews
Enter the option you want read: 1
{'_id': ObjectId('6598428295dc89fe055fb3f8'), 'user_id': 'User_1', 'product_rating': 4, 'product_comments': 'Great product, meets expectations.'}
{'_id': ObjectId('6598428295dc89fe055fb3f9'), 'user_id': 'User_2', 'product_rating': 3, 'product_comments': 'Average product quality, needs improvement.'}
{'_id': ObjectId('6598428295dc89fe055fb3fa'), 'user_id': 'User_3', 'product_rating': 5, 'product_comments': 'Excellent product, exceeded expectations.'}
{'_id': ObjectId('6598428295dc89fe055fb3fb'), 'user_id': 'User_4', 'product_rating': 2, 'product_comments': 'Below average product, didn't meet requirements.'}
{'_id': ObjectId('6598428295dc89fe055fb3fc'), 'user_id': 'User_5', 'product_rating': 4, 'product_comments': 'Satisfactory product, could improve certain features.'}
{'_id': ObjectId('6598428295dc89fe055fb3fd'), 'user_id': 'User_6', 'product_rating': 5, 'product_comments': 'Fantastic product, highly recommended.'}
{'_id': ObjectId('6598428295dc89fe055fb3fe'), 'user_id': 'User_7', 'product_rating': 3, 'product_comments': 'Decent product, but durability is a concern.'}
{'_id': ObjectId('6598428295dc89fe055fb3ff'), 'user_id': 'User_8', 'product_rating': 4, 'product_comments': 'Good quality product, value for money.'}
{'_id': ObjectId('6598428295dc89fe055fb400'), 'user_id': 'User_9', 'product_rating': 1, 'product_comments': 'Poor product, didn't work as expected.'}
{'_id': ObjectId('6598428295dc89fe055fb401'), 'user_id': 'User_10', 'product_rating': 5, 'product_comments': 'Exceptional product, great functionality.'}
{'_id': ObjectId('6598428295dc89fe055fb408'), 'user_id': 'User_1', 'product_rating': 4, 'product_comments': 'Great product, meets expectations.'}
{'_id': ObjectId('6598428295dc89fe055fb409'), 'user_id': 'User_2', 'product_rating': 3, 'product_comments': 'Average product quality, needs improvement.'}
{'_id': ObjectId('6598428295dc89fe055fb40a'), 'user_id': 'User_3', 'product_rating': 5, 'product_comments': 'Excellent product, exceeded expectations.'}
{'_id': ObjectId('6598428295dc89fe055fb40b'), 'user_id': 'User_4', 'product_rating': 2, 'product_comments': 'Below average product, didn't meet requirements.'}
{'_id': ObjectId('6598428295dc89fe055fb40c'), 'user_id': 'User_5', 'product_rating': 4, 'product_comments': 'Satisfactory product, could improve certain features.'}
{'_id': ObjectId('6598428295dc89fe055fb40d'), 'user_id': 'User_6', 'product_rating': 5, 'product_comments': 'Fantastic product, highly recommended.'}
{'_id': ObjectId('6598428295dc89fe055fb40e'), 'user_id': 'User_7', 'product_rating': 3, 'product_comments': 'Decent product, but durability is a concern.'}
{'_id': ObjectId('6598428295dc89fe055fb40f'), 'user_id': 'User_8', 'product_rating': 4, 'product_comments': 'Good quality product, value for money.'}
{'_id': ObjectId('6598428295dc89fe055fb410'), 'user_id': 'User_9', 'product_rating': 1, 'product_comments': 'Poor product, didn't work as expected.'}
{'_id': ObjectId('6598428295dc89fe055fb411'), 'user_id': 'User_10', 'product_rating': 5, 'product_comments': 'Exceptional product, great functionality.'}
```

What would you like to do next?

```
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 2
1- Product Reviews
2- Supplier Reviews
```

Enter the option you want read: 2

```
{'_id': ObjectId('659842da95dc89fe055fc7c4'), 'user_id': 'User_1', 'supplier_rating': 4, 'supplier_comments': 'Good service overall, timely delivery.'}
{'_id': ObjectId('659842da95dc89fe055fc7c5'), 'user_id': 'User_2', 'supplier_rating': 3, 'supplier_comments': 'Average service quality, room for improvement.'}
{'_id': ObjectId('659842da95dc89fe055fc7c6'), 'user_id': 'User_3', 'supplier_rating': 5, 'supplier_comments': 'Excellent service, exceeded expectations.'}
{'_id': ObjectId('659842da95dc89fe055fc7c7'), 'user_id': 'User_4', 'supplier_rating': 2, 'supplier_comments': 'Below average service, late delivery.'}
{'_id': ObjectId('659842da95dc89fe055fc7c8'), 'user_id': 'User_2', 'supplier_rating': 4, 'supplier_comments': 'Satisfactory service, could improve communication.'}
{'_id': ObjectId('659842da95dc89fe055fc7c9'), 'user_id': 'User_1', 'supplier_rating': 5, 'supplier_comments': 'Fantastic service, highly recommended.'}
{'_id': ObjectId('659842da95dc89fe055fc7ca'), 'user_id': 'User_6', 'supplier_rating': 3, 'supplier_comments': 'Decent service, but packaging could be better.'}
{'_id': ObjectId('659842da95dc89fe055fc7cb'), 'user_id': 'User_4', 'supplier_rating': 4, 'supplier_comments': 'Good quality, but delivery was a bit late.'}
{'_id': ObjectId('659842da95dc89fe055fc7cc'), 'user_id': 'User_1', 'supplier_rating': 1, 'supplier_comments': 'Poor service, damaged goods received.'}
{'_id': ObjectId('659842da95dc89fe055fc7cd'), 'user_id': 'User_7', 'supplier_rating': 5, 'supplier_comments': 'Exceptional service, great customer support.'}
```

What would you like to do next?

```
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 1
```

3- Read By Filter

```
What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 3
1- Product Reviews
2- Supplier Reviews
Enter the option you want read: 1
Please enter the id of the user that you want to see his/her reviews on Product Reviews: User_1
{'_id': ObjectId('6598428295dc89fe055fb3f8'), 'user_id': 'User_1', 'product_rating': 4, 'product_comments': 'Great product, meets expectations.'}
{'_id': ObjectId('6598428295dc89fe055fb408'), 'user_id': 'User_1', 'product_rating': 4, 'product_comments': 'Great product, meets expectations.'}

What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 3
1- Product Reviews
2- Supplier Reviews
Enter the option you want read: 2
Please enter the id of the user that you want to see his/her reviews on Supplier Reviews: User_1
{'_id': ObjectId('659842da95dc89fe055fc7c4'), 'user_id': 'User_1', 'supplier_rating': 4, 'supplier_comments': 'Good service overall, timely delivery.'}
{'_id': ObjectId('659842da95dc89fe055fc7c9'), 'user_id': 'User_1', 'supplier_rating': 5, 'supplier_comments': 'Fantastic service, highly recommended.'}
{'_id': ObjectId('659842da95dc89fe055fc7cc'), 'user_id': 'User_1', 'supplier_rating': 1, 'supplier_comments': 'Poor service, damaged goods received.'}

What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
```

4- Insert Into:

```
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 4
1- Product Reviews
2- Supplier Reviews
Enter the option you want to insert into: 1
Rate the product (1-5): 1
Any comments about the product: Berbat
Insertion successfully completed
Inserted document ID: 65984395b33d6a1548ee0bea

What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 4
1- Product Reviews
2- Supplier Reviews
Enter the option you want to insert into: 2
Rate the supplier overall (1-5): 5
Any comments about the supplier: Great
Insertion successfully completed
Inserted document ID: 659843a2b33d6a1548ee0beb

What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 
```

+ Create Database

Q Search Namespaces

cluster0

Product Reviews

Supplier Reviews

cluster0.Supplier Reviews

STORAGE SIZE: 20KB LOGICAL DATA SIZE: 1.35KB TOTAL DOCUMENTS: 11 INDEXES TOTAL SIZE: 20KB

FindIndexesSchema Anti-PatternsAggregationSearch Indexes

INSERT DOCUMENT

FilterType a query: { field: 'value' }ResetApplyOptions

supplier_rating: 4
supplier_comments: "Good quality, but delivery was a bit late."

_id: ObjectId('659842da95dc89fe055fc7cc')
user_id: "User_1"
supplier_rating: 1
supplier_comments: "Poor service, damaged goods received."

_id: ObjectId('659842da95dc89fe055fc7cd')
user_id: "User_7"
supplier_rating: 5
supplier_comments: "Exceptional service, great customer support."

_id: ObjectId('659843a2b33d6a1548ee0beb')
user_id: "100"
supplier_rating: "5"
supplier_comments: "Great"

+ Create Database

Q Search Namespaces

cluster0

Product Reviews

Supplier Reviews

cluster0.Product Reviews

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 2.53KB TOTAL DOCUMENTS: 21 INDEXES TOTAL SIZE: 36KB

FindIndexesSchema Anti-PatternsAggregationSearch Indexes

INSERT DOCUMENT

FilterType a query: { field: 'value' }ResetApplyOptions

_id: ObjectId('6598428295dc89fe055fb40f')
user_id: "User_8"
product_rating: 4
product_comments: "Good quality product, value for money."

_id: ObjectId('6598428295dc89fe055fb410')
user_id: "User_9"
product_rating: 1
product_comments: "Poor product, didn't work as expected."

6598428295dc89fe055fb410

_id: ObjectId('65984395b33d6a1548ee0bea')
user_id: "100"
product_rating: "1"
product_comments: "Berbat"

5- Delete:

```

What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 5
1- Product Reviews
2- Supplier Reviews
Enter the option you want delete from: 1
Please enter the id of the user that you want to delete his/her review from Product Reviews: 100
Successfully deleted record with user ID 100

What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 5
1- Product Reviews
2- Supplier Reviews
Enter the option you want delete from: 2
Please enter the id of the user that you want to delete his/her review from Supplier Reviews: 100
Successfully deleted record with user ID 100

What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.

```

+ Create Database

Q Search Namespaces

cluster0

Product Reviews

Supplier Reviews

cluster0.Product Reviews

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 2.44KB TOTAL DOCUMENTS: 20 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOCUMENT

Filter Type a query: { field: 'value' } Reset Apply Options

product_rating: 5

product_comments: "Fantastic product, highly recommended."

_id: ObjectId("6598428295dc89fe055fb40e")

user_id: "User_7"

product_rating: 3

product_comments: "Decent product, but durability is a concern."

_id: ObjectId("6598428295dc89fe055fb40f")

user_id: "User_8"

product_rating: 4

product_comments: "Good quality product, value for money."

_id: ObjectId("6598428295dc89fe055fb410")

user_id: "User_9"

product_rating: 1

product_comments: "Poor product, didn't work as expected."

1

Q Search Namespaces

cluster0

Product Reviews

Supplier Reviews

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 1.26KB TOTAL DOCUMENTS: 10 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOC

Filter Type a query: { field: 'value' } Reset Apply Optic

supplier_rating: 3
supplier_comments: "Decent service, but packaging could be better."

_id: ObjectId('659842da95dc89fe055fc7cb')
user_id: "User_4"
supplier_rating: 4
supplier_comments: "Good quality, but delivery was a bit late."

_id: ObjectId('659842da95dc89fe055fc7cc')
user_id: "User_1"
supplier_rating: 1
supplier_comments: "Poor service, damaged goods received."

_id: ObjectId('659842da95dc89fe055fc7cd')
user_id: "User_7"
supplier_rating: 5
supplier_comments: "Exceptional service, great customer support."

6- Update data:

+ Create Database

Q Search Namespaces

cluster0

Product Reviews

Supplier Reviews

cluster0.Supplier Reviews

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 1.26KB TOTAL DOCUMENTS: 10 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

Filter Type a query: { field: 'value' } Reset Apply Optic

QUERY RESULTS: 1-10 OF 10

_id: ObjectId('659842da95dc89fe055fc7c4')
user_id: "User_1"
supplier_rating: 4
supplier_comments: "Good service overall, timely delivery."

cluster0

Product Reviews

Supplier Reviews

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOC

Filter Type a query: { field: 'value' } Reset Apply Optic

QUERY RESULTS: 1-19 OF 19

_id: ObjectId('6598428295dc89fe055fb3f8')
user_id: "User_1"
product_rating: 4
product_comments: "Great product, meets expectations."

```

2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 6
1- Product Reviews
2- Supplier Reviews
Enter the option you want to update : 1
Enter 1 to update product rating or enter 2 to update product comment: 2
Please enter the id of the user that you want to update his/her review Product Reviews: User_1
Enter the new updated product_comments: not good
Successfully updated product_comments to not good

What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option: 6
1- Product Reviews
2- Supplier Reviews
Enter the option you want to update : 2
Enter 1 to update supplier rating or enter 2 to update supplier comment: 1
Please enter the id of the user that you want to update his/her review Supplier Reviews: User_1
Enter the new updated supplier_rating: 2
Successfully updated supplier_rating to 2

What would you like to do next?
1- Create a collection.
2- Read all data in a collection.
3- Read some part of the data while filtering.
4- Insert data.
5- Delete data.
6- Update data.
0- Exit.
Selected option:

```

DATABASES: 1 COLLECTIONS: 2

+ Create Database

Search Namespaces

cluster0

Product Reviews

Supplier Reviews

cluster0.Product Reviews

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 2.33KB TOTAL DOCUMENTS: 19 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

Filter

Type a query: { field: 'value' }

Reset Apply Options

QUERY RESULTS: 1-19 OF 19

```

_id: ObjectId('6598428295dc89fe955fb3f8')
user_id: "User_1"
product_rating: 4
product_comments: "not good"

```

+ Create Database

Search Namespaces

cluster0

Product Reviews

Supplier Reviews

cluster0.Supplier Reviews

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 1.26KB TOTAL DOCUMENTS: 10 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

Filter

Type a query: { field: 'value' }

Reset Apply Options

QUERY RESULTS: 1-10 OF 10

```

_id: ObjectId('659842da95dc89fe955fc7c4')
user_id: "User_1"
supplier_rating: "2"
supplier_comments: "Good service overall, timely delivery."

```