

# CS306 – Phase IV

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## System Functionality and Interaction Report

### Introduction

Our report outlines the functionality and user interaction for our MongoDB-based GUI designed to handle user-generated film reviews. The system offers a straightforward user interface for database interactions including creating collections, reading data, inserting new records, updating existing records, and deleting records as necessary based on a user id which is requested at the beginning of the program.

### Database Structure

Our MongoDB database consists of two primary collections:

1. **Film Reviews:** This collection stores user reviews for various films, including a unique identifier for each film, the name of the film, a user ID for the reviewer, the review text, and a star rating.
2. **TV Show Reviews:** Similar to collection and its attribute in the Film Reviews collection, TV show reviews has name, user id, tv show id, and given star.

### System Functionalities

#### 1. Create a Collection

Users can create a new collection within the database.

#### User Interaction:

- User is prompted to enter a name for the new collection.
- On confirmation, the collection is created.

*Screenshot: [Create Collection Interaction]*

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

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.

Selected option:

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

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.

Selected option:

1

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.

- 1- Create a collection.

New Collection

Please enter the collection name you want to use:

film\_reviews

OK Cancel

Selected option:

1

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

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.

Attributes

Please enter the attributes in the collection (Enter 0 to exit):

rating

OK Cancel

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

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

Attributes

Please enter the attributes in the collection (Enter 0 to exit):

film\_name

OK Cancel

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

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.

Attribute Value

Enter the value for 'film\_name':

interstellar

OK Cancel

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

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

Attribute Value

Enter the value for 'rating':

10


OK Cancel

Select Option

Please write your user id, then you must click enter button in your keyboard.

1234

Please write your user id, then you must click enter button in your keyboard.



The collection 'film\_reviews' was successfully created.

OK

Please write your user id, then you must click enter button in your keyboard.

Selected option:

1

Select Option

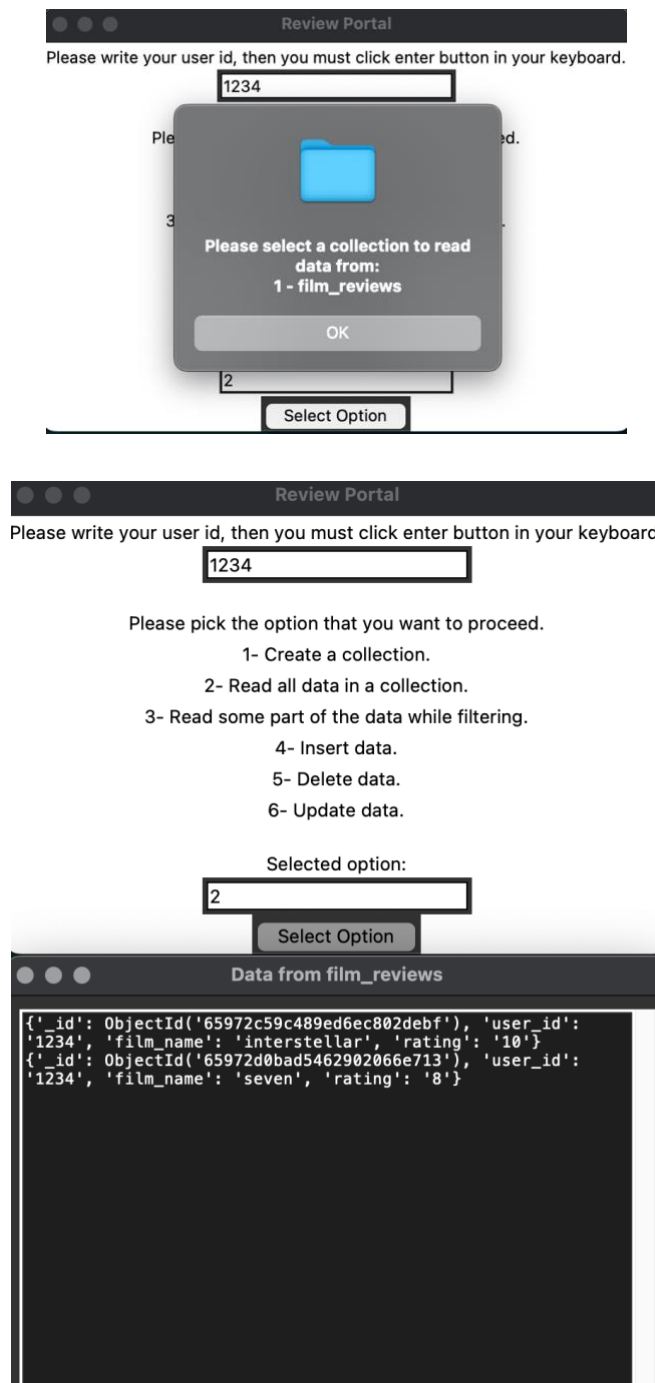
## 2. Read All Data in a Collection

This feature allows users to view all entries within a collection.

### User Interaction:

- User selects the option to read all data.
- System displays all records from the chosen collection.

Screenshot: *[Read All Data Interaction]*



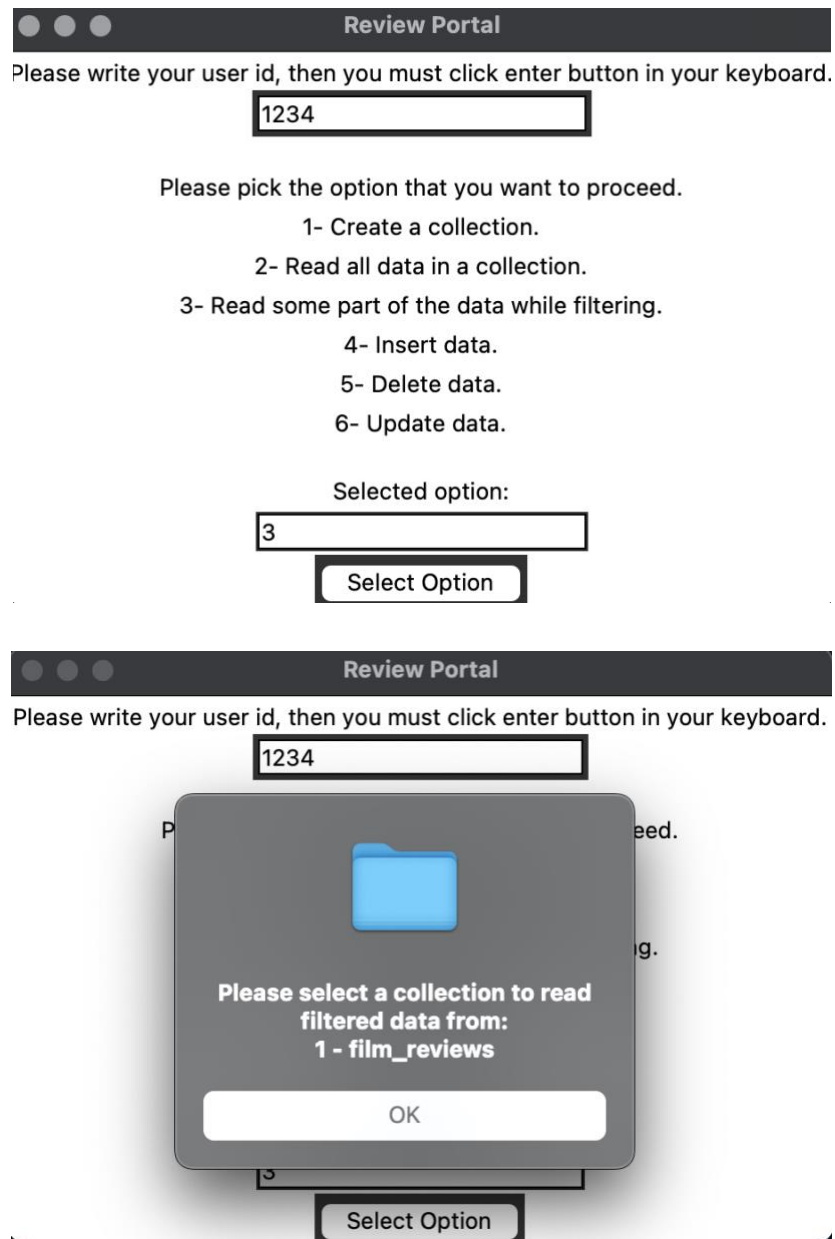
### 3. Read Data with Filtering

Users can filter and read specific data based on criteria such as film name or star rating.

#### User Interaction:

- User selects the option to read data with filtering.
- User enters the filtering criteria.
- System displays the records that meet the criteria.

*Screenshot: [Read Data with Filtering Interaction]*



Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.  
1- Create a collection.

Collection Selection

Enter the collection number:

1

OKCancel

Selected option:

3

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.  
1- Create a collection.

Filter Criteria

Enter the criteria you want to filter (or leave blank to finish):

rating

OKCancel

Selected option:

3

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.  
1- Create a collection.

Filter Value

Enter value for 'rating':

8

OKCancel

Selected option:

3

Select Option

## Review Portal

Please write your user id, then you must click enter button in your keyboard.

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.

Selected option:

Select Option

### Filtered Data from film\_reviews

```
{ '_id': ObjectId('65972d0bad5462902066e713'), 'user_id':  
'1234', 'film_name': 'seven', 'rating': '8' }
```



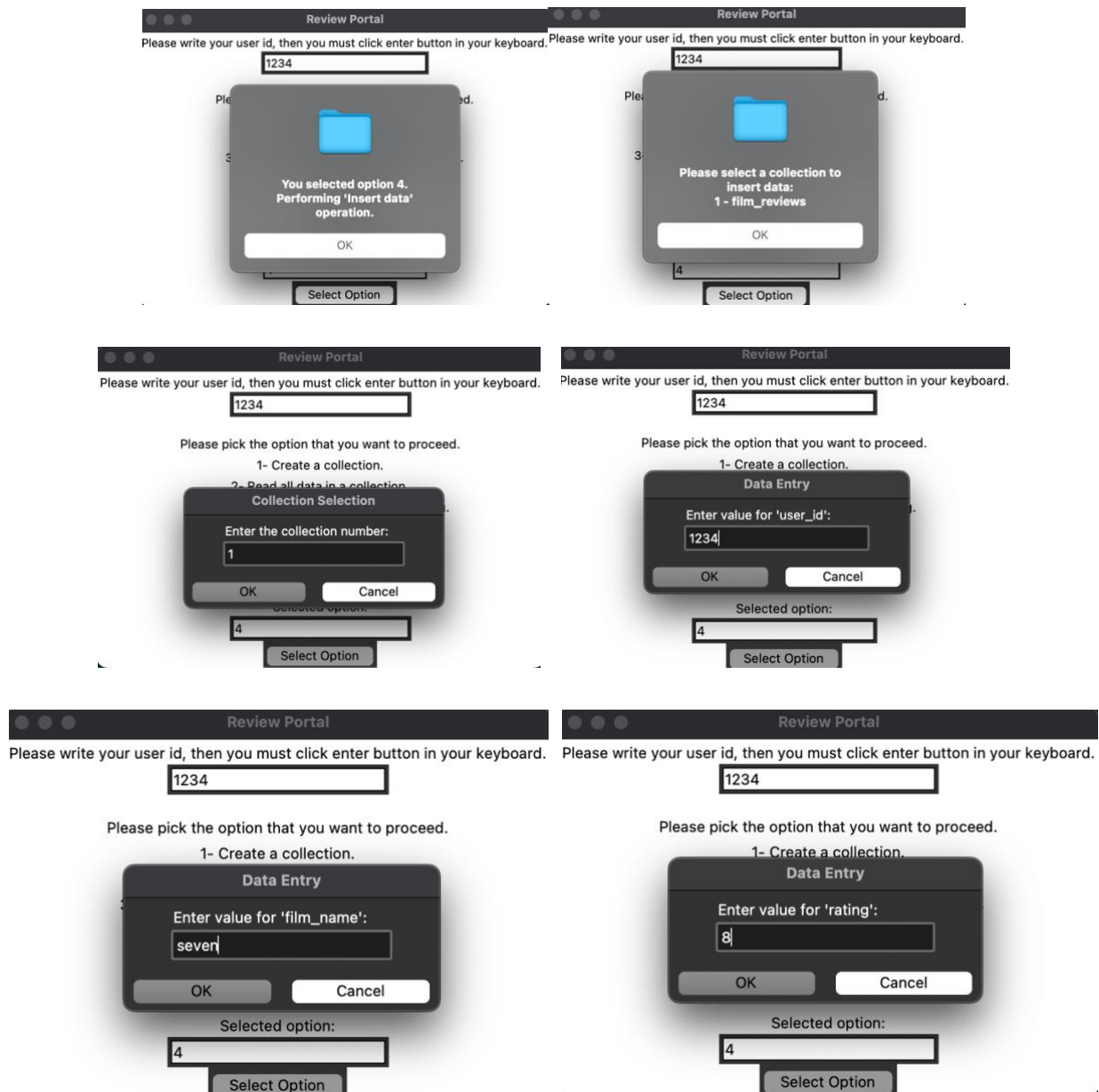
#### 4. Insert Data

New data can be added to any collection.

##### User Interaction:

- User chooses to insert data.
- User is prompted to enter data fields such as film name, review, and rating.
- Upon entry, the data is inserted into the collection.

*Screenshot: [Insert Data Interaction]*



## database.film\_reviews

STORAGE SIZE: 20KB LOGICAL DATA SIZE: 83B TOTAL DOCUMENTS: 1 INDEXES TOTAL SIZE: 20KB

Find

Indexes

Schema Anti-Patterns 0

Aggregation

Search Indexes

INSERT DOCUMENT

Filter

Type a query: { field: 'value' }

Reset

Apply

Options ▶

QUERY RESULTS: 1-1 OF 1

```
_id: ObjectId('65972c59c489ed6ec802deb')
user_id: "1234"
film_name: "interstellar"
rating: "10"
```

## database.film\_reviews

STORAGE SIZE: 20KB LOGICAL DATA SIZE: 158B TOTAL DOCUMENTS: 2 INDEXES TOTAL SIZE: 20KB

Find

Indexes

Schema Anti-Patterns 0

Aggregation

Search Indexes

INSERT DOCUMENT

Filter

Type a query: { field: 'value' }

Reset

Apply

Options ▶

QUERY RESULTS: 1-2 OF 2



```
_id: ObjectId('65972c59c489ed6ec802deb')
user_id: "1234"
film_name: "interstellar"
rating: "10"
```



```
_id: ObjectId('65972d0bad5462902066e713')
user_id: "1234"
film_name: "seven"
rating: "8"
```

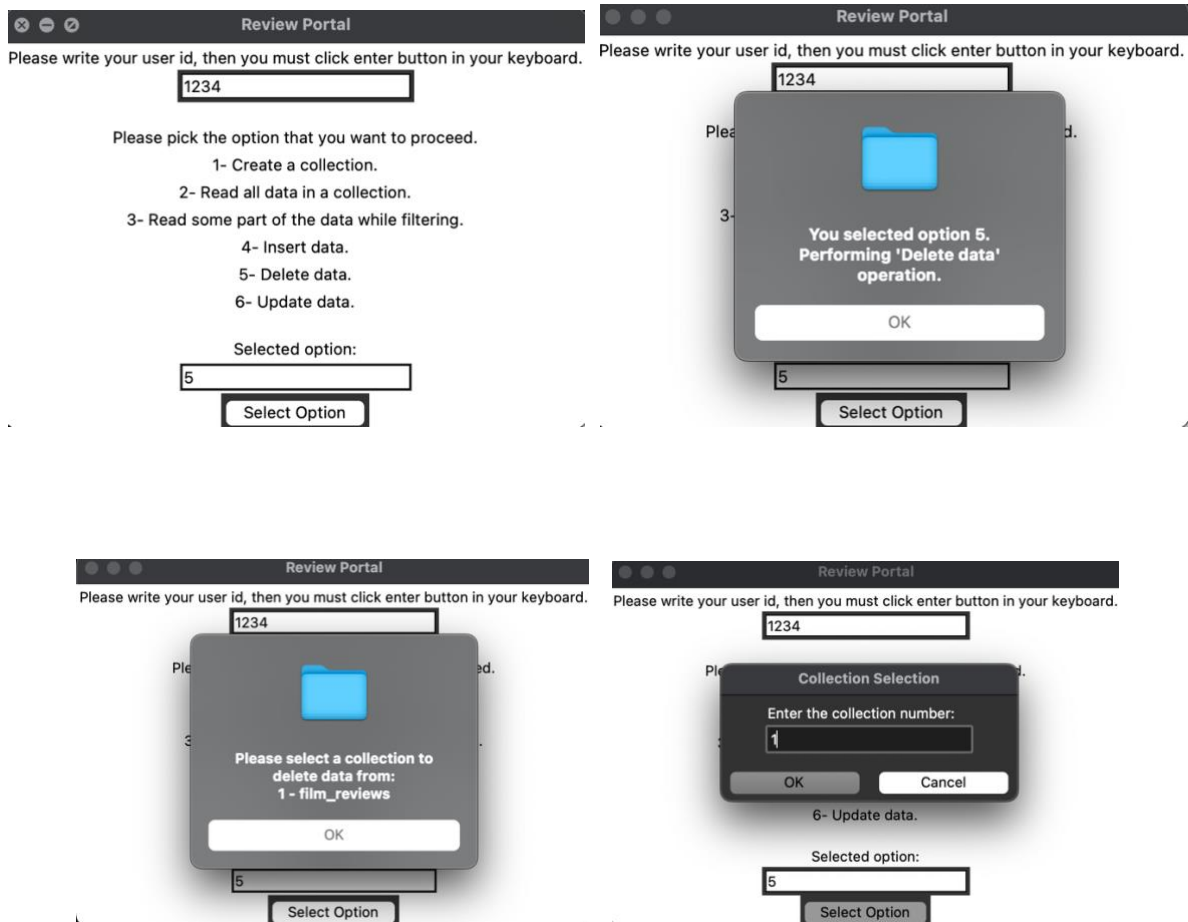
## 5. Delete Data

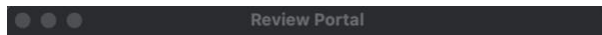
Users can delete existing data from a collection.

### User Interaction:

- User selects the option to delete data.
- User provides the identifier for the data to be deleted.
- System removes the data from the collection.

*Screenshot: [Delete Data Interaction]*





Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.

**Data Entry**

Enter value for 'user\_id' to delete:

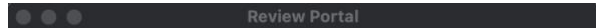
1234

OK Cancel

Selected option:

5

Select Option



Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.

**Data Entry**

Enter value for 'film\_name' to delete:

seven

OK Cancel

6- Update data.

Selected option:

5

Select Option



Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.

**Data Entry**

Enter value for 'rating' to delete:

8

OK Cancel

6- Update data.

Selected option:

5

Select Option



Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.

**Data Entry**

Enter value for 'rating' to delete:

8

OK Cancel

Data was successfully deleted from the collection.

OK

5

Select Option

## database.film\_reviews

65972c59c489ed6ec802debff AL DATA SIZE: 83B TOTAL DOCUMENTS: 1 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns 0 Aggregation Search Indexes

INSERT DOCUMENT

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

QUERY RESULTS: 1-1 OF 1

`_id: ObjectId('65972c59c489ed6ec802debff')`

`user_id: "1234"`

`film_name: "interstellar"`

`rating: "10"`

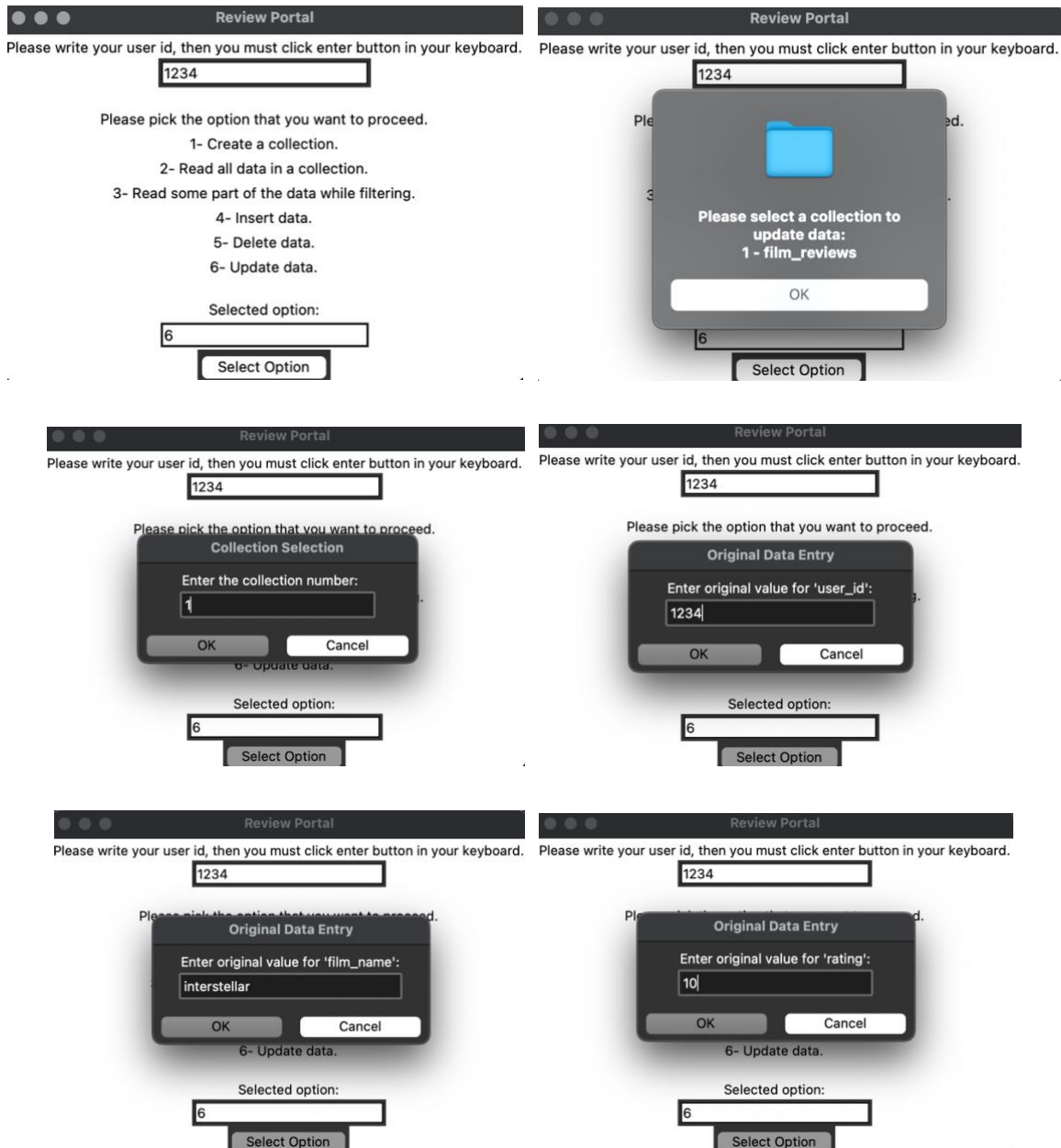
## 6. Update Data

This function allows users to update existing entries in the database.

### User Interaction:

- User selects the update data option.
- User provides the identifier for the data to be updated and the new values.
- System updates the record in the collection.

*Screenshot: [Update Data Interaction]*



Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.

New Data Entry

Enter new value for 'user\_id':

1234

OK Cancel

6- Update data.

Selected option:

6

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.

New Data Entry

Enter new value for 'film\_name':

interstellar

OK Cancel

6- Update data.

Selected option:

6

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.

New Data Entry

Enter new value for 'rating':

6

OK Cancel

6- Update data.

Selected option:

6

Select Option

Review Portal

Please write your user id, then you must click enter button in your keyboard.

1234

Please pick the option that you want to proceed.

Data was successfully updated in the collection.

OK

Selected option:

6

Select Option

## database.film\_reviews

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 82B TOTAL DOCUMENTS: 1 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns 0 Aggregation Search Indexes

INSERT DOCUMENT

Filter [🔗](#) Type a query: { field: 'value' } Reset Apply Options ▶

QUERY RESULTS: 1-1 OF 1

```
_id: ObjectId('65972c59c489ed6ec802debf')
user_id: "1234"
film_name: "interstellar"
rating: "6"
```

## Conclusion

The system provides an efficient and user-friendly interface for managing user-generated content within a MongoDB database. It ensures flexibility and ease of use in data manipulation, catering to a wide range of applications from film reviews to user complaints.