

CS 306 Project Phase 4 Report

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I used the functions provided in *connect.py* and *main.py* for this phase of the project. While I left some of them untouched, I modified the rest such that they are applicable to collections other than the one provided in the example (*dummy_data.py*). I implemented an option handler that calls the relevant function when it is requested by the user and a function to convert user input formatted in a specific way to a dictionary that can be inserted into a collection. Otherwise, I only made minor adjustments to the code to handle errors and possible problems on the user's end (e.g. importing ObjectId to make record IDs usable).

I used a cluster I created on mongoDB Atlas to create, store, and modify the collections. I checked whether my implementation of each option is correct by checking the entries in each collection. I inserted an extra entry to both collections for test purposes, each of which can be inferred from the screenshots below (although I have not taken screenshots while inserting them).

I created two collections: Song Reviews and Concert Calendar. Song Reviews keeps the reviews and ratings of users about the songs in the database, whereas Concert Calendar contains entries that include various details (e.g. time and date, artist, place) about upcoming concerts by leftist artists.

- Requested screenshots for my first collection (Song Reviews):

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 1
Enter the name of the collection you want to create: Song Reviews
Collection 'Song Reviews' created.
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 1
```

Creating the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 4
Enter the name of the collection you want to insert input to: Song Reviews
Enter the input you want to insert (in the format "field:value", where the field-value pairs are separated by commas):
reviewer_name:Deniz Muratli,review:Loved it!,rating:5,review_time:31-12-2023T00.52.00,track:The Internationale
Insertion successfully completed
Inserted document ID: 659096a24fe805b026aebc5c
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 1
```

Inserting an entry to the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 2
Enter the name of the collection you want to read all the input of: Song Reviews
{'_id': ObjectId('659096a24fe805b026aebc5c'), 'user_id': 29480, 'reviewer_name': 'Deniz Muratli', 'review': 'Loved it!', 'rating': 5, 'review_time': '31-12-2023T00.52.00', 'track': 'The Internationale'}
{'_id': ObjectId('659096d0fd79844b639ebc78'), 'user_id': 66666, 'reviewer_name': 'FascistGuyXXX', 'review': 'I hate this!', 'rating': 1, 'review_time': '31-12-2023T01.02.00', 'track': 'The Internationale'}
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 
```

Listing all entries in the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 3
Enter the name of the collection you want to search the value in: Song Reviews
Enter the name of the field to be checked: rating
Enter the value you want to search for: 5
{'_id': ObjectId('659096a24fe805b026aebc5c'), 'user_id': 29480, 'reviewer_name': 'Deniz Muratli', 'review': 'Loved it!', 'rating': 5, 'review_time': '31-12-2023T00.52.00', 'track': 'The Internationale'}
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 
```

Filtering the entries in the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 6
Enter the name of the collection that contains the record you want to update: Song Reviews
Enter the ID of the record you want to update: 659096a24fe805b026aebc5c
Enter the name of the field to be updated: review
Enter the value you want to replace the old value with: This is the best song ever!
Successfully updated review for record with ID 659096a24fe805b026aebc5c
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 
```

Updating an entry in the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 5
Enter the name of the collection you want to delete input from: Song Reviews
Do you want to delete by record ID or user ID?
1) Record ID
2) User ID
Selected option: 2
Enter the ID of the user whose entries you want to delete: 66666
Successfully deleted 1 record that contains 66666
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 
```

Deleting an entry from the collection.

- Requested screenshots for my second collection (Concert Calendar):

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 1
Enter the name of the collection you want to create: Concert Calendar
Collection 'Concert Calendar' created.
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 1
```

Creating the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 4
Enter the name of the collection you want to insert input to: Concert Calendar
Enter the input you want to insert (in the format "field:value", where the field-value pairs are separated by commas):
artist_name:Grup Yorum,concert_time:01-01-2024T18.00.00,concert_place:Istanbul
Insertion successfully completed
Inserted document ID: 65909937a951de0deb169dc9
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 1
```

Inserting an entry to the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 2
Enter the name of the collection you want to read all the input of: Concert Calendar
{'_id': ObjectId('65909937a951de0deb169dc9'), 'user_id': 29480, 'artist_name': 'Grup Yorum', 'concert_time': '01-01-2024T18.00.00', 'concert_place': 'Istanbul'}
{'_id': ObjectId('659099722c0890939e9a1d10'), 'user_id': 178900, 'artist_name': 'Mogollar', 'concert_time': '02-01-2024T18.00.00', 'concert_place': 'Ankara'}
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 
```

Listing all entries in the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 3
Enter the name of the collection you want to search the value in: Concert Calendar
Enter the name of the field to be checked: artist_name
Enter the value you want to search for: Grup Yorum
{'_id': ObjectId('65909937a951de0deb169dc9'), 'user_id': 29480, 'artist_name': 'Grup Yorum', 'concert_time': '01-01-2024T18.00.00', 'concert_place': 'Istanbul'}
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 
```

Filtering the entries in the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 6
Enter the name of the collection that contains the record you want to update: Concert Calendar
Enter the ID of the record you want to update: 659099722c0890939e9a1d10
Enter the name of the field to be updated: concert_place
Enter the value you want to replace the old value with: Izmir
Successfully updated concert_place for record with ID 659099722c0890939e9a1d10
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 
```

Updating an entry in the collection.

```
~/Doc/P/U/2023/CS 306/P/Phase 4 > python3 main.py
Connection established to your db
Welcome to Leftist Music Portal!
Please enter your user ID:
29480
Please pick the option you want to proceed with:
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 5
Enter the name of the collection you want to delete input from: Concert Calendar
Do you want to delete by record ID or user ID?
1) Record ID
2) User ID
Selected option: 1
Enter the ID of the record you want to delete: 65909937a951de0deb169dc9
Successfully deleted record with ID 65909937a951de0deb169dc9
What would you like to do next?
1) Create a collection
2) Read all input in a collection
3) Read some part of the input while filtering
4) Insert input
5) Delete input
6) Update input

Selected option: 
```

Deleting an entry from the collection.