

CS 327E Project 6, due Thursday, 10/26.

This assignment uses the sample database `sample_weatherdata` and its `data` collection. Please make sure that all your work is done over this dataset. No credit will be given if you construct your queries using a different dataset.

- Create a `project6.ipynb` notebook from `mongodb.ipynb`.
- Restart the kernel and clear all cells.
- Change the connection string to connect to the `sample_weatherdata` database.
- Add a markdown comment on the last cell with the heading “begin project 6 work”.
- Create a new javascript file called `project6_queries.js` and implement 10 queries in this script. All queries must use the `find` method and pass in both a selection and projection parameter to this method. Altogether, they must meet the minimum criteria specified in the table below:

Number of queries	Operation
2+	Logical AND ($a = x$ and $b = y$)
2+	Logical OR ($a = x$ or $b = y$)
2+	Range query ($a > x$ and $< y$)
1+	Filter on embedded field that is one level deep
1+	Filter on embedded field that is two levels deep
2+	Element in array matches x
1+	Embedded object in array matches x
4+	Sort results in ascending order

- Feel free to use the `limit()` method in your queries.
- Feel free to experiment with additional methods and operators above those mentioned in the table. Refer to the [official documentation](#).
- Precede each query with a print statement that describes its function.
- Wrap each query in a `printjson()`.
- Add a new cell to `project6.ipynb` and execute the script from this cell and save the output.

Part 2: Optional Extra Credit

This portion of the assignment is optional and is worth 5 extra points. These extra points add on to your exam grade for Midterm 1. **No late submissions will be accepted for extra credit.**

- Add a markdown comment on the last cell with the heading “begin extra credit work”.
- Create a new javascript file called `exam1_extra_credit.js` and implement 10 mutating operations in this script. A mutation is an insert, update, or delete statement. Altogether, the 10 mutations must meet these minimum criteria:

Number of mutations	Operation
1	Document insert with insertOne()
2	Document insert with insertMany()
1	Document update with updateOne()
1	Document update with updateOne() and \$push
2	Document update with updateMany()
1	Document delete with deleteOne()
2	Document delete with deleteMany()

- Inserted documents must contain at least 5 fields and conform to the schema used by the other documents in the same collection.
- Precede each mutation with a print statement that describes its function.
- Wrap each mutation in a `printjson()` call.
- Add a new cell to `project6.ipynb` and execute the script from this cell and save the output.

CS 327E Project 6 Rubric

Due Date: 10/26/23

<p>Implement the 10 queries as specified in the table of minimum criteria:</p> <ul style="list-style-type: none"> -10 for each missing query or query which didn't run or produced an error -5 for each query missing an entire selection parameter -3 for each query missing an entire projection parameter -1 for each required criteria that is not met by the 10 queries 	100
<p>Implement the 10 mutating operations as specified in the table of minimum criteria:</p> <ul style="list-style-type: none"> -5 for each missing mutation or mutation produced an error -5 for each required criteria that is not met by the 10 mutations 	5 exam points
<p><code>project6.ipynb</code> and <code>project6_queries.js</code> pushed to your group's private repo on GitHub. Your project will not be graded without this submission.</p>	Required
<p><code>exam1_extra_credit.js</code> pushed to your group's private repo on GitHub if you are submitting the extra credit portion of the assignment.</p>	Optional
<p><code>submission.json</code> submitted into Canvas. Your project will not be graded without this submission. The file should have the following schema:</p> <pre>{ "commit-id": "your most recent commit ID from GitHub", "project-id": "your project ID from GCP" }</pre> <p>Example:</p> <pre>{ "commit-id": "dab96492ac7d906368ac9c7a17cb0dbd670923d9", "project-id": "some-project-id" }</pre>	Required
<p>Total Credit:</p>	100