

Database Management Systems (ICT 2225)

FISAC: MongoDB Query Execution Assignment

Submission Deadline: 10th April 2025

Mode: LMS Assignment

The objective of this assignment is to demonstrate ability of the student to execute MongoDB queries on a dataset of their choice. Student needs to create a collection, insert sample data, and perform various queries to retrieve and manipulate data.

Instructions:

1. Dataset Selection:

- Choose any dataset of your preference
- The dataset should have at least **10 documents** with a variety of fields

2. Database and Collection Creation:

- Create a database named **RegistrationNumber_DB**
- Create a collection within this database named **RegistrationNumber _Collection.**

3. Insert Data:

- Insert at least **10 documents** into your collection.
- Ensure that each document contains a field named submitted by with your actual username for verification.

4. Query Execution: Perform the following queries and provide the execution results:

- **Basic Retrieval:** Retrieve all documents from the collection.
- **Filtering:** Find all documents that match a specific condition
- **Sorting:** Retrieve all documents sorted by a specific field in ascending or descending order.
- **Projection:** Retrieve only specific fields from the documents
- **Aggregation:** Perform an aggregation query
- **Update:** Update a field in one or more documents based on a condition.
- **Deletion:** Delete a document that meets a specific condition.

5. Submission Guidelines:

- Submit a single .pdf file containing:
 - Description of the dataset used and dataset in JSON format
 - The MongoDB queries executed (**Question and MongoDB query and the query results screenshots**)
- Ensure your database and collection name follow the format RegistrationNumber_DB and RegistrationNumber_Collection.