

Create: Adding Data

1. Add three new products to the `products` collection. Each product should include the following fields:
 - a. `product_id`: A unique identifier for the product.
 - b. `name`: The name of the product.
 - c. `category`: The category of the product (e.g., "Electronics," "Furniture").
 - d. `price`: The price of the product (e.g., 50, 200).
 - e. `stock`: The quantity of the product in stock.

Read: Querying Data

2. Write a query to find all products with stock less than 50. Display their `name`, `price`, and `stock` fields.
3. Write a query to retrieve all products in the `Furniture` category. Display the full document for each product.

Update: Modifying Data

4. Apply a 10% discount to the price of all products in the `Electronics` category. Update the documents and verify the changes by querying all `Electronics` products.
5. Increase the stock of all products priced above 500 by 10 units. Update the documents and verify the changes.

Delete: Removing Data

6. Write a query to remove all products with a `stock` equal to 0. Verify that the documents have been deleted.
7. Delete a product by its `product_id`. Choose one product to delete and verify that it no longer exists in the collection.

Additional Challenge Questions

8. Write a query to find all products in the `Electronics` category with a `price` greater than 200 and `stock` greater than 20. Display their `name`, `price`, and `stock`.
9. Add a new field, `rating`, to all products in the `Electronics` category with a default value of 4.5.

10. Write a query to calculate and display the total number of products in the Furniture category.