

Project-3: Online Store

Due Date: April 26th, 2023

Instructor: Dr. Sugandha Malviya

Overview: To create an online store using MongoDB and Python

Description: In this project, you will create a MongoDB database and perform various database operations using Python. You will use the Pymongo library to interact with the MongoDB database.

Dataset: Download the “Products.json” file from Canvas. The file contains the sample collection of the products.

Features:

- **User Information:** Stores user information
- **Product Browsing:** Allows users to browse products by categories.
- **Shopping Cart:** Allows users to add or delete products from the cart.
- **Order Summary:** Allow users to view order details, including products and their total price.

Project Steps:

1. Create a MongoDB database called “OnlineStore” with the following collections:
 1. Users
 2. Products
 3. Shopping Cart
2. Load the sample product data. The given dataset contains 20 products.
3. Create a function to add user information such as firstname, lastname, email, phone number, date of birth, address, etc.
4. Create a function to retrieve the product information using the product category field (the sample data has four categories to select from)
5. Create a function to select products using product id. (Note: the given sample data has two id fields, id, and _id)
6. Create a function to add the selected products to the shopping cart collection (hint: You can use \$in operator)
7. Create a function to delete the selected products from the shopping cart.
8. Create an orderSummary function that calculates and prints the total amount of all the products in the shopping cart. Additionally, you can create a separate collection called orders that stores the user’s id, ordered products, and total price information.

Submission Instructions:

- **[40 points]** Submit your Python code as a single .py file.
- **[5 points]** Include a “README.txt” with steps for setting up MongoDB and running your Python code.
- **[5 points]** Submit a document or pdf file describing in at least 200 words how you could improve this Online Store in terms of features and using additional tools and technologies.

Conclusion:

This project provides hands-on experience working with modern databases, MongoDB and Python. MongoDB allows for storing and managing online store data, and Python provides for creating an interface for users to interact with that database.