

CCA 3: Implementation of Object-Oriented Databases and XML Databases

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Subject: ADBMS

Part 1: Object-Oriented Database

- Implemented using Python classes.
- Data is stored as serialized objects using pickle.
- Demonstrates object storage and retrieval.

Part 2: XML Database for Data Sharing

- XML file (products.xml) used as a shared database.
- Two HTML pages (seller.html and buyer.html) access the same XML file.
- Shows inter-website data sharing.

Tools Used:

- Python 3.10
- VS Code
- HTML, XML

How to run:

1. Open the folder in Visual Studio Code.
2. Install the “Live Server” extension if not already installed.
3. Right click on seller.html or buyer.html and click “Open with Live Server.”
4. The page will open in your browser and display the XML data properly.

Note:

If you try to open the HTML files directly by double-clicking, the XML data might not show due to browser security restrictions.

You can also try using Firefox if Live Server is not available.

Output:

- Screenshot of terminal output.

```
Objects have been stored successfully in 'students_database.pkl'

Stored Students:
ID: 101, Name: Amit Sharma, Course: Computer Science
ID: 102, Name: Neha Patil, Course: Information Technology
ID: 103, Name: Ravi Kumar, Course: Data Science
PS C:\Users\zaudin\OneDrive\Desktop\XML>
```

- Screenshot of both websites displaying XML data.

Seller.html -

127.0.0.1:5500/seller.html

Seller Portal

Available Products

ID	Name	Price	Availability
101	Chocolate Cake	₹450	Available
102	Red Velvet Cake	₹600	Out of Stock
103	Black Forest Cake	₹550	Available

Data shared via XML database

Buyer.html -

Buyer Portal

Products Shared by Seller

ID	Name	Price	Availability
101	Chocolate Cake	₹450	Available
102	Red Velvet Cake	₹600	Out of Stock
103	Black Forest Cake	₹550	Available

Connected via Shared XML Database