

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

Dr. C. H. Patil

Name: Rashita Gomes

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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> █
Ln 40, Col 1   Spaces: 4   UTF-8
```

- Screenshot of both websites displaying XML data.

Seller.html -

The screenshot shows a web browser window with the title "Seller Portal". Inside the main content area, there is a table with the header "Available Products". The table contains the following data:

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

At the bottom of the page, there is a small note: "Data shared via XML database".

Buyer.html -

← → ⌛ ① 127.0.0.1:5500/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