DATABASE ON MALLS

SHOPPING MALL DATABASE MANAGEMENT SYSTEM

Created using LibreOffice Base

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CERTIFICATE AND ACKNOWLEDGEMENT

Certificate

This is to certify that the project titled 'Shopping Mall Database Management System' has been prepared as part of the academic work in Information Technology. The project demonstrates the use of LibreOffice Base to organise customer, product and sales information using tables, queries, forms and reports.

Acknowledgement

We sincerely thank our subject teacher for the guidance and encouragement provided during this project. We are grateful to our school for the opportunity to learn database concepts through a practical activity. We also thank our group members for their cooperation in designing the tables, entering sample records, creating a query, and preparing a form and report.

THIS PROJECT HELPED US UNDERSTAND HOW A DATABASE CAN MAKE INFORMATION EASIER TO STORE, FIND, ORGANISE AND PRESENT.

ABOUT THE DATABASE

The Shopping Mall Database Management System is a small database designed to maintain information about products available in a shopping mall, its customers and the sales made. It was created in LibreOffice Base, which provides tools for storing structured data and working with it through tables, queries, forms and reports.

MAIN PARTS OF THE DATABASE

- **Product Details:** stores Product ID, Product Name, Price, Quantity in stock and Category.
- **Customer Details:** stores Customer ID, Product ID, Customer Name, Phone and Address.
- **Sales Table:** stores Sales ID, Product ID, Customer ID, Quantity Sold and Total Amount.
- **Query:** combines useful fields from related tables to show a clear view of purchases.
- **Form:** provides a simple screen for viewing or entering product details.
- **Report:** presents query results in a clean, printable layout.

HOW IT HELPS PEOPLE

- Shop owners can check product prices and available stock more quickly.
- Customer and sales details can be kept in one organised system instead of scattered notes.
- Queries make it easier to find related information, such as which customer bought which product.
- Sales totals help staff review transactions and reduce manual calculation errors.
- Forms make data entry more user-friendly, while reports make information easier to print and share.
- The records shown in this project are sample data for demonstration. In a real system, access to personal customer details should be limited to authorised staff.

TABLES AND THEIR BENEFITS

Tables store the basic records used throughout the database.

1. Customer Details table

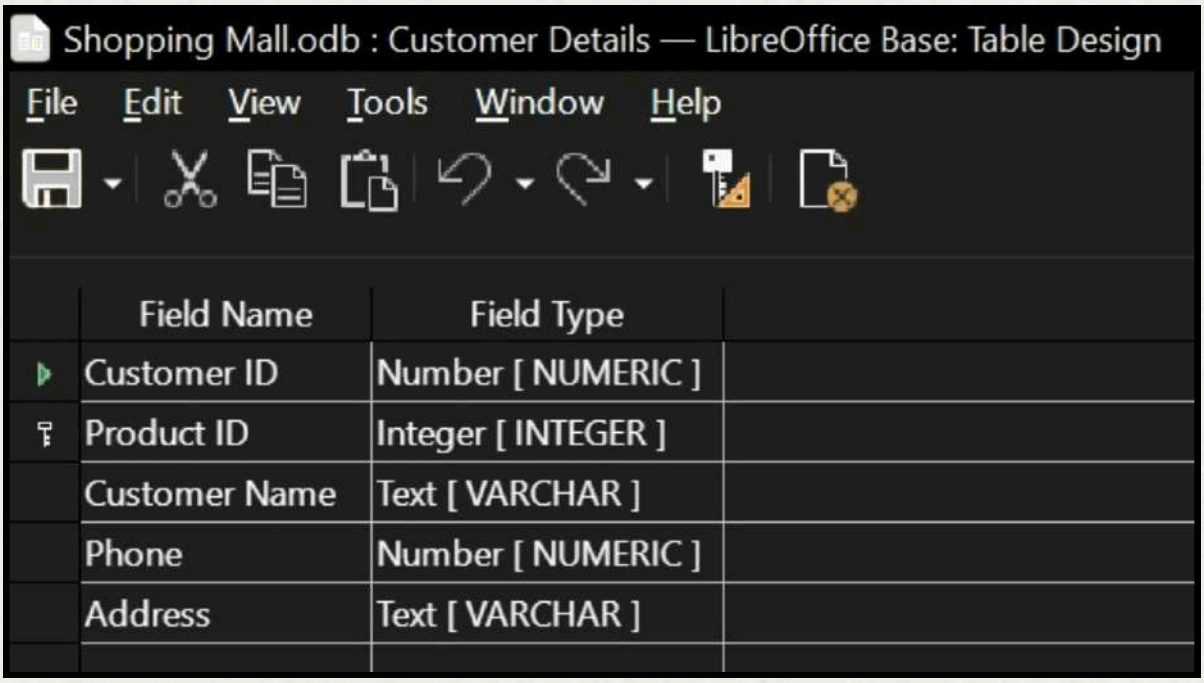
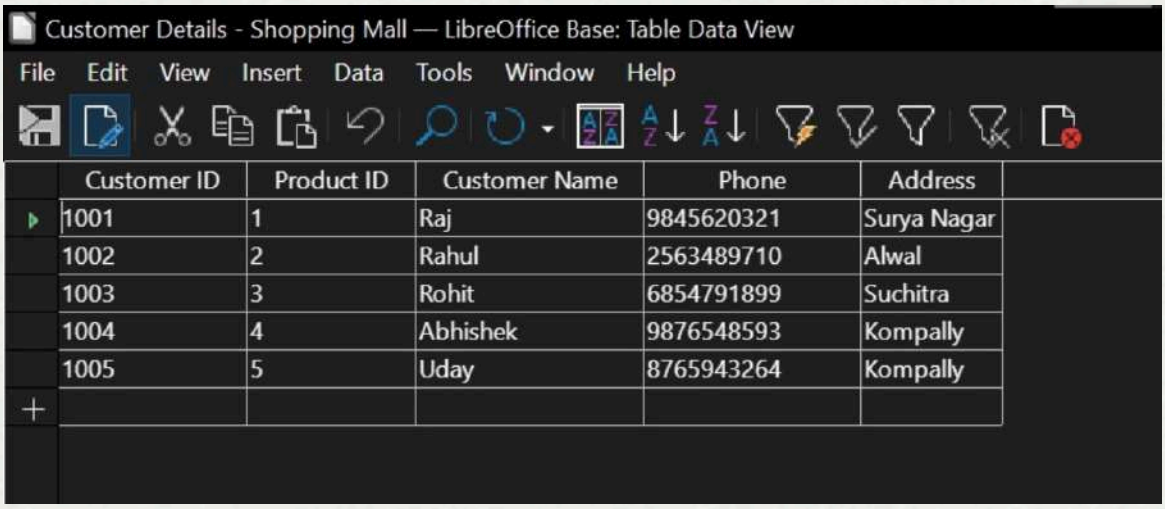


Table structure: customer fields and their data types.



Customer ID	Product ID	Customer Name	Phone	Address
1001	1	Raj	9845620321	Surya Nagar
1002	2	Rahul	2563489710	Alwal
1003	3	Rohit	6854791899	Suchitra
1004	4	Abhishek	9876548593	Kompally
1005	5	Uday	8765943264	Kompally

Sample customer records.

2. Product Details table

ShoppingMall.obd.odb : Product Details — LibreOffice Base: Table Design

File Edit View Tools Window Help

Field Name	Field Type
Product ID	Integer [INTEGER]
Product Name	Text [VARCHAR]
Price	Decimal [DECIMAL]
Quantity	Integer [INTEGER]
Category	Text [VARCHAR]

Table structure: product fields and their data types.

Product Details - ShoppingMall.obd — LibreOffice Base: Table Data View

File Edit View Insert Data Tools Window Help

Product ID	Product Name	Price	Quantity	Category
1	T- Shirt	499	50	Clothing
2	Jeans	999	30	Clothing
3	Sneakers	1499	25	Footwear
4	School Bbag	799	40	Accessories
5	Wrist Watch	1299	20	Accessories

Sample product records.

3. Sales Table

ShoppingMall.obd.odb : Sales Detail — LibreOffice Base: Table Design

File Edit View Tools Window Help

Field Name	Field Type
Sales ID	Integer [INTEGER]
Product ID	Integer [INTEGER]
Customer ID	Integer [INTEGER]
Quantity Sold	Integer [INTEGER]
Total Amount	Decimal [DECIMAL]

Table structure: sales fields and their data types.

Sales Details - ShoppingMall.obd — LibreOffice Base: Table Data View

File Edit View Insert Data Tools Window Help

Sale ID	Product ID	Quantity Sold	Total Amount
1	1	2	998
2	3	1	1499
3	2	2	1998
4	5	1	1299
5	4	1	799

Sample sales records.

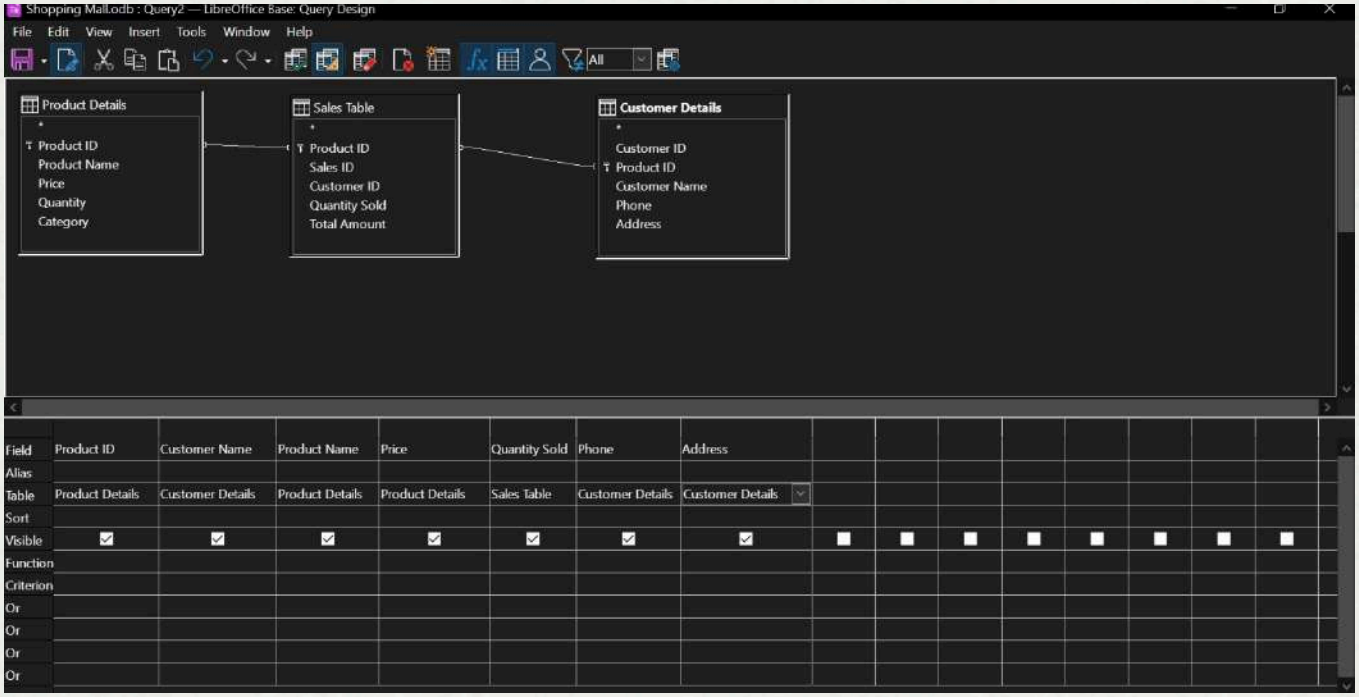
BENEFITS:

Separate tables reduce repetition, field types help keep data consistent, and ID fields help identify records. Product ID and Customer ID can connect sales with the relevant product and customer. In a refined design, each ID should have a clearly defined primary key and matching foreign-key relationship.

QUERIES AND THEIR BENEFITS

A QUERY COMBINES SELECTED FIELDS FROM TABLES TO ANSWER A SPECIFIC QUESTION.

QUERY DESIGN



Query design showing selected fields from Product Details, Sales Table and Customer Details.

QUERY OUTPUT

Product Details - ShoppingMall.obd — LibreOffice Base: Table Data View

File Edit View Insert Data Tools Window Help

Product ID	Product Name	Price	Quantity	Category
1	T- Shirt	499	50	Clothing
2	Jeans	999	30	Clothing
3	Sneakers	1499	25	Footwear
4	School Bbag	799	40	Accessories
5	Wrist Watch	1299	20	Accessories

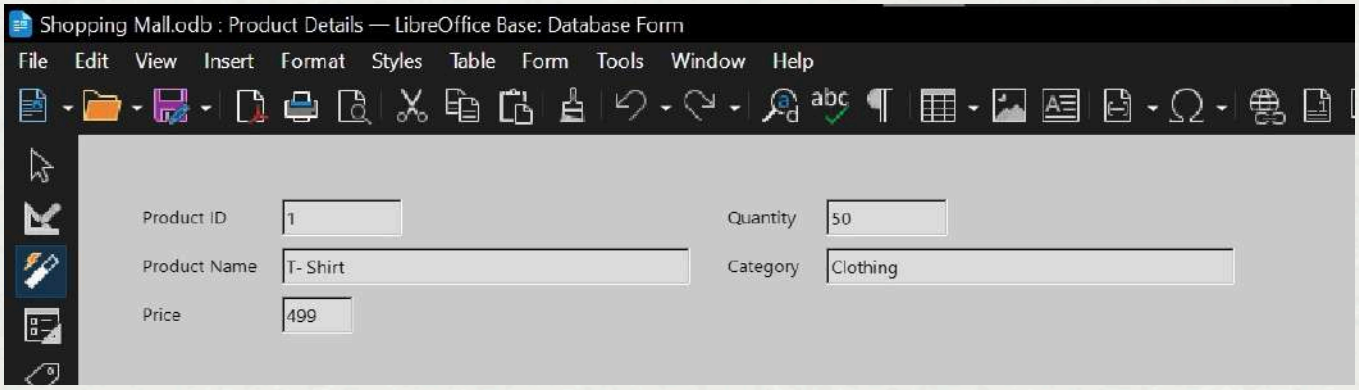
Example result displaying product, customer, price, quantity sold, phone and address.

- The query brings related information into one view, so a user does not need to open each table separately. It can help staff review purchases, verify customer details and compare products with sales records. Queries can also be adapted with criteria, such as a particular product, customer or quantity sold.

Data note: the sample query output is a demonstration. Before using a database for real business decisions, verify that the table relationships and sample records match the intended transactions.

FORMS AND THEIR BENEFITS

- Forms provide a more convenient interface for viewing or entering records.



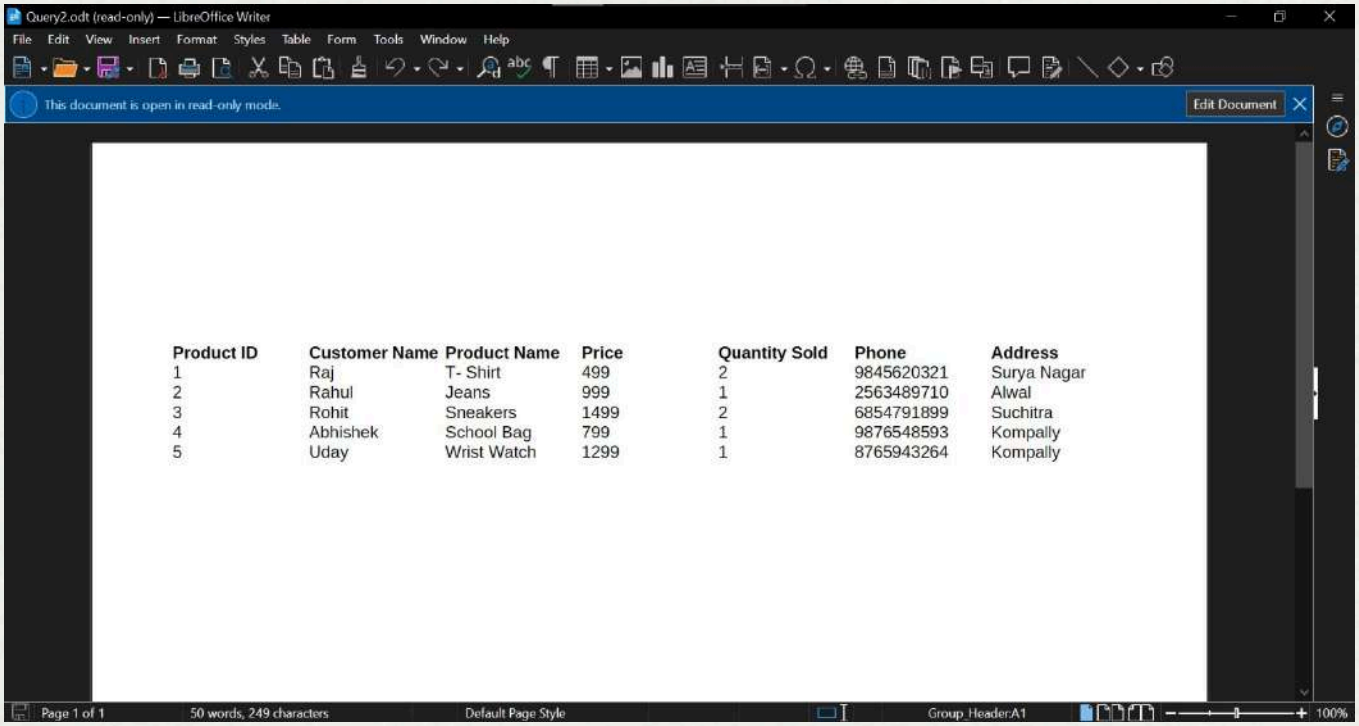
- Product Details form in LibreOffice Base.

WHAT THE FORM SHOWS ?

- Product ID identifies the product record.
- Product Name and Category describe the item.
- Price records the selling price.
- Quantity indicates the available stock shown in the sample.
- Benefits of using forms
- A form presents fields in a clear, labelled layout.
- Users can focus on one record at a time instead of navigating a wide table.
- Forms can make data entry easier for staff who are not familiar with table design.
- Validation rules can be added to reduce incomplete or incorrectly entered information.
- For a larger shop, separate forms could be created for customers and sales. Drop-down lists for Product ID and Customer ID would also help users select existing records consistently.

REPORT

A report organizes database information into a readable layout that can be reviewed, printed or shared. The report shown below uses the query output to present the product and customer details along with price and quantity sold.



Product ID	Customer Name	Product Name	Price	Quantity Sold	Phone	Address
1	Raj	T- Shirt	499	2	9845620321	Surya Nagar
2	Rahul	Jeans	999	1	2563489710	Alwal
3	Rohit	Sneakers	1499	2	6854791899	Suchitra
4	Abhishek	School Bag	799	1	9876548593	Kompally
5	Uday	Wrist Watch	1299	1	8765943264	Kompally

- Report generated from the query results.

BENEFITS OF THE REPORT

- Presents several related fields in one neat document.
- Makes it easier to review sample sales and customer records.
- Can be printed for record-keeping or used during a review meeting.
- Reduces the need to manually copy information from different tables.

CONCLUSION

The Shopping Mall Database Management System demonstrates the main features of a relational database. Tables store structured records, queries combine relevant information, forms simplify data entry, and reports present results clearly. Together, these features can save time, improve organization and support more reliable record-keeping. With carefully defined relationships, accurate data and appropriate privacy controls, the database could be expanded for practical use.


Thank
You