**1️⃣ Customers Collection (customers)**

Each customer has a name, email, phone, address, and balance.

[

{

"customerId": "CUST001",

"name": "Amit Sharma",

"email": "amit.sharma@example.com",

"phone": "+919876543210",

"address": { "city": "Mumbai", "state": "Maharashtra", "zip": "400001" },

"balance": 15000

},

{

"customerId": "CUST002",

"name": "Priya Verma",

"email": "priya.verma@example.com",

"phone": "+918765432109",

"address": { "city": "Delhi", "state": "Delhi", "zip": "110001" },

"balance": 8000

},

{

"customerId": "CUST003",

"name": "Rahul Gupta",

"email": "rahul.gupta@example.com",

"phone": "+917654321098",

"address": { "city": "Bangalore", "state": "Karnataka", "zip": "560001" },

"balance": 6000

},

{

"customerId": "CUST004",

"name": "Sneha Iyer",

"email": "sneha.iyer@example.com",

"phone": "+919543210876",

"address": { "city": "Chennai", "state": "Tamil Nadu", "zip": "600001" },

"balance": 5000

},

{

"customerId": "CUST005",

"name": "Vikas Singh",

"email": "vikas.singh@example.com",

"phone": "+916432109875",

"address": { "city": "Kolkata", "state": "West Bengal", "zip": "700001" },

"balance": 12000

},

{

"customerId": "CUST006",

"name": "Anjali Reddy",

"email": "anjali.reddy@example.com",

"phone": "+919887766554",

"address": { "city": "Hyderabad", "state": "Telangana", "zip": "500001" },

"balance": 2000

},

{

"customerId": "CUST007",

"name": "Karan Malhotra",

"email": "karan.malhotra@example.com",

"phone": "+919998877665",

"address": { "city": "Pune", "state": "Maharashtra", "zip": "411001" },

"balance": 11000

},

{

"customerId": "CUST008",

"name": "Neha Das",

"email": "neha.das@example.com",

"phone": "+918877665544",

"address": { "city": "Ahmedabad", "state": "Gujarat", "zip": "380001" },

"balance": 7500

},

{

"customerId": "CUST009",

"name": "Arjun Chatterjee",

"email": "arjun.chatterjee@example.com",

"phone": "+917766554433",

"address": { "city": "Jaipur", "state": "Rajasthan", "zip": "302001" },

"balance": 3000

},

{

"customerId": "CUST010",

"name": "Meera Nair",

"email": "meera.nair@example.com",

"phone": "+916655443322",

"address": { "city": "Lucknow", "state": "Uttar Pradesh", "zip": "226001" },

"balance": 9000

}

]

**2️⃣ Accounts Collection (accounts)**

Each account is linked to a customer (customerId).

[

{ "accountId": "ACC001", "customerId": "CUST001", "accountType": "Savings", "balance": 15000 },

{ "accountId": "ACC002", "customerId": "CUST001", "accountType": "Checking", "balance": 8000 },

{ "accountId": "ACC003", "customerId": "CUST003", "accountType": "Savings", "balance": 6000 },

{ "accountId": "ACC004", "customerId": "CUST004", "accountType": "Checking", "balance": 5000 },

{ "accountId": "ACC005", "customerId": "CUST003", "accountType": "Savings", "balance": 12000 },

{ "accountId": "ACC006", "customerId": "CUST006", "accountType": "Checking", "balance": 2000 },

{ "accountId": "ACC007", "customerId": "CUST007", "accountType": "Savings", "balance": 11000 },

{ "accountId": "ACC008", "customerId": "CUST007", "accountType": "Checking", "balance": 7500 },

{ "accountId": "ACC009", "customerId": "CUST006", "accountType": "Savings", "balance": 3000 },

{ "accountId": "ACC010", "customerId": "CUST010", "accountType": "Checking", "balance": 9000 }

]

**3️⃣ Transactions Collection (transactions)**

Each transaction has a sender and receiver (accountId), amount, type, and date.

[

{ "transactionId": "TXN001", "fromAccountId": "ACC001", "toAccountId": "ACC002", "amount": 500, "transactionType": "Transfer", "date": "2024-03-06T10:30:00Z" },

{ "transactionId": "TXN002", "fromAccountId": "ACC003", "toAccountId": "ACC004", "amount": 1200, "transactionType": "Transfer", "date": "2024-03-05T09:45:00Z" },

{ "transactionId": "TXN003", "fromAccountId": "ACC005", "toAccountId": "ACC006", "amount": 800, "transactionType": "Transfer", "date": "2024-03-04T14:20:00Z" },

{ "transactionId": "TXN004", "fromAccountId": "ACC007", "toAccountId": "ACC008", "amount": 2000, "transactionType": "Transfer", "date": "2024-03-03T11:00:00Z" },

{ "transactionId": "TXN005", "fromAccountId": "ACC009", "toAccountId": "ACC010", "amount": 1500, "transactionType": "Transfer", "date": "2024-03-02T16:10:00Z" },

{ "transactionId": "TXN006", "fromAccountId": "ACC002", "toAccountId": "ACC005", "amount": 300, "transactionType": "Transfer", "date": "2024-03-01T08:30:00Z" },

{ "transactionId": "TXN007", "fromAccountId": "ACC004", "toAccountId": "ACC007", "amount": 4500, "transactionType": "Transfer", "date": "2024-02-28T12:45:00Z" },

{ "transactionId": "TXN008", "fromAccountId": "ACC006", "toAccountId": "ACC009", "amount": 900, "transactionType": "Transfer", "date": "2024-02-27T17:15:00Z" }

]

**💾 How to Import This Data into MongoDB Compass?**

1. **Open MongoDB Compass**.
2. **Select your database** (e.g., bankDB).
3. **Go to the Collection** (customers, accounts, transactions).
4. **Click "Insert Document"** → **Paste JSON** → Click **Insert**.
5. **Alternatively, use the "Import JSON" option**.

## Example 2: Banking Database

It follows the schema:

* **Branches**: Stores branch details.
* **Customers**: Stores customer details.
* **Accounts**: Stores account details with references to branches and customers.
* **Transactions**: Stores transactions linked to accounts.
* **Loans**: Stores loans linked to customers.

**MongoDB Script:**

use BankingDB;

// Creating Branches Collection

db.branches.insertMany([

{ \_id: 1, name: "Mumbai Main Branch", city: "Mumbai", ifsc: "MUM1234" },

{ \_id: 2, name: "Delhi Central", city: "Delhi", ifsc: "DEL5678" },

{ \_id: 3, name: "Kolkata Hub", city: "Kolkata", ifsc: "KOL9101" },

{ \_id: 4, name: "Chennai Core", city: "Chennai", ifsc: "CHE1121" },

{ \_id: 5, name: "Bangalore Prime", city: "Bangalore", ifsc: "BAN3141" },

{ \_id: 6, name: "Hyderabad Circle", city: "Hyderabad", ifsc: "HYD5161" },

{ \_id: 7, name: "Pune Junction", city: "Pune", ifsc: "PUN7181" },

{ \_id: 8, name: "Ahmedabad Metro", city: "Ahmedabad", ifsc: "AHM9202" },

{ \_id: 9, name: "Jaipur Capital", city: "Jaipur", ifsc: "JAI1123" },

{ \_id: 10, name: "Lucknow Heritage", city: "Lucknow", ifsc: "LUC1456" }

]);

// Creating Customers Collection

db.customers.insertMany([

{ \_id: 101, name: "Ravi Sharma", city: "Mumbai", age: 35 },

{ \_id: 102, name: "Amit Verma", city: "Delhi", age: 42 },

{ \_id: 103, name: "Priya Das", city: "Kolkata", age: 29 },

{ \_id: 104, name: "Karthik Reddy", city: "Chennai", age: 31 },

{ \_id: 105, name: "Sneha Kapoor", city: "Bangalore", age: 27 },

{ \_id: 106, name: "Rahul Jain", city: "Jaipur", age: 38 },

{ \_id: 107, name: "Pooja Joshi", city: "Pune", age: 30 },

{ \_id: 108, name: "Vikas Gupta", city: "Ahmedabad", age: 45 },

{ \_id: 109, name: "Ananya Iyer", city: "Hyderabad", age: 33 },

{ \_id: 110, name: "Arjun Singh", city: "Lucknow", age: 40 }

]);

// Creating Accounts Collection

db.accounts.insertMany([

{ \_id: 1001, branch\_id: 1, customer\_id: 101, balance: 50000 },

{ \_id: 1002, branch\_id: 2, customer\_id: 102, balance: 75000 },

{ \_id: 1003, branch\_id: 3, customer\_id: 103, balance: 30000 },

{ \_id: 1004, branch\_id: 4, customer\_id: 104, balance: 90000 },

{ \_id: 1005, branch\_id: 5, customer\_id: 105, balance: 65000 },

{ \_id: 1006, branch\_id: 6, customer\_id: 106, balance: 20000 },

{ \_id: 1007, branch\_id: 7, customer\_id: 107, balance: 87000 },

{ \_id: 1008, branch\_id: 8, customer\_id: 108, balance: 40000 },

{ \_id: 1009, branch\_id: 9, customer\_id: 109, balance: 55000 },

{ \_id: 1010, branch\_id: 10, customer\_id: 110, balance: 32000 }

]);

// Creating Transactions Collection

db.transactions.insertMany([

{ \_id: 5001, account\_id: 1001, type: "credit", amount: 5000, date: "2025-03-07" },

{ \_id: 5002, account\_id: 1002, type: "debit", amount: 2000, date: "2025-03-06" },

{ \_id: 5003, account\_id: 1003, type: "credit", amount: 3000, date: "2025-03-05" },

{ \_id: 5004, account\_id: 1004, type: "debit", amount: 1000, date: "2025-03-04" },

{ \_id: 5005, account\_id: 1005, type: "credit", amount: 7000, date: "2025-03-03" },

{ \_id: 5006, account\_id: 1006, type: "debit", amount: 500, date: "2025-03-02" },

{ \_id: 5007, account\_id: 1007, type: "credit", amount: 8000, date: "2025-03-01" },

{ \_id: 5008, account\_id: 1008, type: "debit", amount: 1500, date: "2025-02-28" },

{ \_id: 5009, account\_id: 1009, type: "credit", amount: 6000, date: "2025-02-27" },

{ \_id: 5010, account\_id: 1010, type: "debit", amount: 2500, date: "2025-02-26" }

]);

// Creating Loans Collection

db.loans.insertMany([

{ \_id: 7001, customer\_id: 101, amount: 200000, interest\_rate: 7.5, duration: "5 years" },

{ \_id: 7002, customer\_id: 102, amount: 150000, interest\_rate: 8.0, duration: "4 years" },

{ \_id: 7003, customer\_id: 103, amount: 100000, interest\_rate: 6.5, duration: "3 years" },

{ \_id: 7004, customer\_id: 104, amount: 250000, interest\_rate: 7.2, duration: "6 years" },

{ \_id: 7005, customer\_id: 105, amount: 180000, interest\_rate: 7.8, duration: "5 years" },

{ \_id: 7006, customer\_id: 106, amount: 120000, interest\_rate: 6.9, duration: "4 years" },

{ \_id: 7007, customer\_id: 107, amount: 220000, interest\_rate: 8.1, duration: "5 years" },

{ \_id: 7008, customer\_id: 108, amount: 140000, interest\_rate: 7.0, duration: "3 years" },

{ \_id: 7009, customer\_id: 109, amount: 160000, interest\_rate: 7.6, duration: "4 years" },

{ \_id: 7010, customer\_id: 110, amount: 190000, interest\_rate: 7.4, duration: "5 years" }

]);

print("Database and collections created successfully!");

**Explanation:**

* **Branches**: 10 branches with city names and IFSC codes.
* **Customers**: 10 customers with Indian names and cities.
* **Accounts**: Each account is linked to a branch and a customer.
* **Transactions**: Each transaction references an account.
* **Loans**: Each loan is linked to a customer.