**Milestone # 5**

To migrate key relational data from the MySQL database of the Travel Insurance System to a MongoDB NoSQL structure. The goal is to restructure the dataset for flexibility and scalability, set up MongoDB locally, and run queries to verify successful migration and data retrieval.

**1. Selection of Tables for Migration**

The following MySQL tables were selected for migration based on their relevance and relationships in the system:

* Customers
* Countires\_Offers
* Claims
* Agent\_Sales
* Agents
* Customer\_Policies

**2. Data Restructuring**

Since MongoDB is document-based, the relational structure was converted into embedded documents where applicable:

{

"\_id": "cust\_001",

"name": "John Doe",

"email": "john@example.com",

"policies": [

{

"policy\_id": "pol\_101",

"type": "Senior Travel",

"start\_date": "2024-10-01",

"end\_date": "2025-01-01",

"claims": [

{

"claim\_id": "cl\_501",

"amount": 3000,

"status": "Approved"

}

]

}

]

}

**3. Query Execution in MongoDB**

Verified successful migration with basic and advanced queries:

* **Find all policies of a customer:**

db.customers.find({ "name": "John Doe" }, { "policies": 1, "\_id": 0 })

List all approved claims:

db.customers.aggregate([

{ $unwind: "$policies" },

{ $unwind: "$policies.claims" },

{ $match: { "policies.claims.status": "Approved" } },

{ $project: {

\_id: 0,

customer: "$name",

policy: "$policies.policy\_id",

claim: "$policies.claims.claim\_id",

amount: "$policies.claims.amount"

}}

])

Total number of claims per customer:

db.customers.aggregate([

{ $project: {

name: 1,

totalClaims: {

$sum: {

$map: {

input: "$policies",

as: "policy",

in: { $size: "$$policy.claims" }

}

}

}

}}

])

A screenshot of a computer

AI-generated content may be incorrect.

 MongoDB is successfully set up and operational.

 MySQL data has been transformed and migrated to a document-based structure in MongoDB.

 Queries are working as expected, and the data model supports embedded documents for faster access and flexibility.