

How NoSQL Maps to SQL Schema:

- Tables vs. Collections: SQL tables like User, Product, and Order are translated into separate collections in NoSQL.
- Primary/Foreign Keys vs. Object References: Relationships in SQL (e.g., foreign keys) are handled by embedding documents or referencing other document IDs in NoSQL.
- Normalization vs. Denormalization: SQL often normalizes data across multiple tables to reduce redundancy, while NoSQL tends to denormalize by embedding related data directly within documents to optimize read performance.

NoSQL Examples :

User Collection :

```
{  
  "_id": ObjectId("..."),  
  "Fname": "John",  
  "Mname": "D",  
  "Lname": "Doe",  
  "Email": "john.doe@example.com",  
  "Age": 30,  
  "Date_of_birth": "1994-05-12",  
  "Phone": "12345678901",  
  "Password": "hashed_password",  
  "Ssn": "12345678901234",  
  "Admin": {  
    "AdminId": ObjectId("..."),
```

```
"Salary": 50000.00,
"Date_of_join": "2020-01-15"
},
"Customer": {
  "CustomerId": ObjectId("..."),
  "Bank_card": "1234567812345678",
  "Cart": {
    "CartId": ObjectId("..."),
    "Total_cost": 299.99,
    "Items": [
      {
        "ItemId": ObjectId("..."),
        "Quantity": 2,
        "ProductId": ObjectId("...")
      }
    ]
  }
}
```

Product Collection Example

```
{
  "_id": ObjectId("..."),
  "Name": "Laptop",
  "Description": "A powerful laptop",
```

```
"Price": 999.99,
"Average_rate": 4.5,
"CategoryId": ObjectId("..."),
"Images": [
  {
    "ImageId": ObjectId("..."),
    "image": "image1.jpg"
  },
  {
    "ImageId": ObjectId("..."),
    "image": "image2.jpg"
  }
],
"Reviews": [
  {
    "ReviewId": ObjectId("..."),
    "CustomerId": ObjectId("..."),
    "Comment": "Great product!",
    "Rate": 5.0
  }
]
}
```

Category Example

```
{
  "_id": ObjectId("..."),
  "name": "Electronics",
```

```
"Description": "Devices and gadgets",  
"ParentCategory": ObjectId("...")  
}
```

Order Example

```
{  
  "_id": ObjectId("..."),  
  "CustomerId": ObjectId("..."),  
  "Order_Date": "2024-01-10",  
  "OrderDetails": {  
    "OrderDetailsId": ObjectId("..."),  
    "Taxes": 50.00,  
    "Discount": 10.00,  
    "Items": [  
      {  
        "ItemId": ObjectId("..."),  
        "Quantity": 2,  
        "ProductId": ObjectId("...")  
      }  
    ]  
  },  
  "PaymentInformation": {  
    "Payment_date": "2024-01-10",  
    "Payment_method": "Visa"  
  }  
}
```