

```

// Create the PRODUCT_DIM collection
db.createCollection("PRODUCT_DIM", {
  validator: {
    $jsonSchema: {
      bsonType: "object",
      required: ["Product_ID", "Product_Name", "Category", "Brand", "Supplier"],
      properties: {
        Product_ID: { bsonType: "int" },
        Product_Name: { bsonType: "string" },
        Category: { bsonType: "string" },
        Brand: { bsonType: "string" },
        Supplier: { bsonType: "string" }
      }
    }
  }
});
db.PRODUCT_DIM.createIndex({ Product_ID: 1 }, { unique: true });

```

```

// Create the STORE_DIM collection
db.createCollection("STORE_DIM", {
  validator: {
    $jsonSchema: {
      bsonType: "object",
      required: ["Store_ID", "Store_Name", "Location", "Region", "Manager"],
      properties: {
        Store_ID: { bsonType: "int" },
        Store_Name: { bsonType: "string" },
        Location: { bsonType: "string" },
        Region: { bsonType: "string" },
        Manager: { bsonType: "string" }
      }
    }
  }
});
db.STORE_DIM.createIndex({ Store_ID: 1 }, { unique: true });

```

```

// Create the DATE_DIM collection
db.createCollection("DATE_DIM", {
  validator: {
    $jsonSchema: {
      bsonType: "object",
      required: ["Date_ID", "Date", "Day", "Month", "Quarter", "Year"],
      properties: {
        Date_ID: { bsonType: "int" },
        Date: { bsonType: "date" },
        Day: { bsonType: "string" },
        Month: { bsonType: "string" },
        Quarter: { bsonType: "string" },
        Year: { bsonType: "string" }
      }
    }
  }
});

```

```

    }
  }
});
db.DATE_DIM.createIndex({ Date_ID: 1 }, { unique: true });

// Create the CUSTOMER_DIM collection
db.createCollection("CUSTOMER_DIM", {
  validator: {
    $jsonSchema: {
      bsonType: "object",
      required: ["Customer_ID", "First_Name", "Last_Name", "Gender", "Age",
"Email", "Address"],
      properties: {
        Customer_ID: { bsonType: "int" },
        First_Name: { bsonType: "string" },
        Last_Name: { bsonType: "string" },
        Gender: { bsonType: "string" },
        Age: { bsonType: "int" },
        Email: { bsonType: "string" },
        Address: { bsonType: "string" }
      }
    }
  }
});
db.CUSTOMER_DIM.createIndex({ Customer_ID: 1 }, { unique: true });

// Create the PROMOTION_DIM collection
db.createCollection("PROMOTION_DIM", {
  validator: {
    $jsonSchema: {
      bsonType: "object",
      required: ["Promotion_ID", "Promotion_Name", "Type", "Start_Date",
"End_Date"],
      properties: {
        Promotion_ID: { bsonType: "int" },
        Promotion_Name: { bsonType: "string" },
        Type: { bsonType: "string" },
        Start_Date: { bsonType: "date" },
        End_Date: { bsonType: "date" }
      }
    }
  }
});
db.PROMOTION_DIM.createIndex({ Promotion_ID: 1 }, { unique: true });

// Create the SALES_FACT collection
db.createCollection("SALES_FACT", {
  validator: {
    $jsonSchema: {
      bsonType: "object",

```

```

        required: [
            "Sales_ID",
            "Product_ID",
            "Store_ID",
            "Date_ID",
            "Customer_ID",
            "Promotion_ID",
            "Quantity_Sold",
            "Sales_Amount",
            "Discount_Amount",
            "Total_Cost"
        ],
        properties: {
            Sales_ID: { bsonType: "int" },
            Product_ID: { bsonType: "int" },
            Store_ID: { bsonType: "int" },
            Date_ID: { bsonType: "int" },
            Customer_ID: { bsonType: "int" },
            Promotion_ID: { bsonType: "int" },
            Quantity_Sold: { bsonType: "int" },
            Sales_Amount: { bsonType: ["double", "decimal"] },
            Discount_Amount: { bsonType: ["double", "decimal"] },
            Total_Cost: { bsonType: ["double", "decimal"] }
        }
    }
}

});
db.SALES_FACT.createIndex({ Sales_ID: 1 }, { unique: true });

// Sample data insertion (optional)
// Insert sample documents into PRODUCT_DIM
db.PRODUCT_DIM.insertMany([
    {
        Product_ID: 1,
        Product_Name: "Widget",
        Category: "Gadgets",
        Brand: "Acme",
        Supplier: "Acme Suppliers"
    }
]);

// Insert sample documents into STORE_DIM
db.STORE_DIM.insertMany([
    {
        Store_ID: 1,
        Store_Name: "Main Street Store",
        Location: "123 Main St",
        Region: "North",
        Manager: "Alice Smith"
    }
]);

```

```

    }

});

// Insert sample documents into DATE_DIM
db.DATE_DIM.insertMany([
  {
    Date_ID: 20211015,
    Date: ISODate("2021-10-15"),
    Day: "Friday",
    Month: "October",
    Quarter: "Q4",
    Year: "2021"
  }
]);

// Insert sample documents into CUSTOMER_DIM
db.CUSTOMER_DIM.insertMany([
  {
    Customer_ID: 1,
    First_Name: "John",
    Last_Name: "Doe",
    Gender: "Male",
    Age: 30,
    Email: "john.doe@example.com",
    Address: "456 Elm St"
  }
]);

// Insert sample documents into PROMOTION_DIM
db.PROMOTION_DIM.insertMany([
  {
    Promotion_ID: 1,
    Promotion_Name: "Holiday Sale",
    Type: "Discount",
    Start_Date: ISODate("2021-12-01"),
    End_Date: ISODate("2021-12-31")
  }
]);

// Insert sample documents into SALES_FACT
db.SALES_FACT.insertMany([
  {
    Sales_ID: 1,
    Product_ID: 1,
    Store_ID: 1,
    Date_ID: 20211015,

```

```
Customer_ID: 1,  
Promotion_ID: 1,  
Quantity_Sold: 2,  
Sales_Amount: 200.0,  
Discount_Amount: 20.0,  
Total_Cost: 180.0  
}  
]);
```