LAB 11: ECOMMERCE PRODUCT CATALOG DESIGN USING MONGODB

QUSETION 1: Create a collection PRODUCT and insert the following documents for Audio Album

>db.products.insert({_id:"p01", type: "Audio Album", title:"Bergmans volume15", description:"by Fr Bergmans", release_date:"2020-02-15", shipping:{weight:6, dimensions:{width:10, height:10, depth:1}}, pricing:{list:1200,retail:1100, savings:100, percentage_savings:8}, details:{title:"jeba thotta jeya geethangal", artisrt:"Fr Bergmans", genre:["folk","Spiritual"],tracks:["Song1","Song2","Song3","Song4"],},},)

WriteResult({"nInserted":1})

QUESTION 2: insert the following documents for a movie to PRODUCT collection

>db.products.insert({_id:"p02", type:"Movie", title:"Mater", description: "Movie by Actor Vijay", release_date:"2020-03-14", shipping:{weight:10, dimensions:{width:20, height:10, depth:2}}, pricing:{list:15000, retail:14000, savings:500, percentage_savings:12}, details:{title:"Master", director:["rex","peter"], writer:["sam", "jones"], length:"3 hours"},})

WriteResult({ "nInserted" : 1 })

QUESTION 3: show all documents in the collection PRODUCT

> db.products.find().pretty()

{

    "_id" : "p01",

    "type" : "Audio Album",

    "title" : "Bergmans volume15",

    "description" : "by Fr Bergmans",

    "release_date" : "2020-02-15",

    "shipping" : {

        "weight" : 6,

        "dimensions" : {

            "width" : 10,

```json
            "height" : 10,
            "depth" : 1
        }
    },
    "pricing" : {
        "list" : 1200,
        "retail" : 1100,
        "savings" : 100,
        "percentage_savings" : 8
    },
    "details" : {
        "title" : "jeba thotta jeya geethangal",
        "artist" : "Fr Bergmans",
        "genre" : [
            "folk",
            "spiritual"
        ],
        "tracks" : [
            "song1",
            "song2",
            "song3",
            "song4"
        ]
    }
}
{
    "_id" : "p02",
    "type" : "Movie",
    "title" : "Mater",
```

```json
        "description" : "Movie by Actor Vijay",
        "release_date" : "2020-03-14",
        "shipping" : {
            "weight" : 10,
            "dimensions" : {
                "width" : 20,
                "height" : 10,
                "depth" : 2
            }
        },
        "pricing" : {
            "list" : 15000,
            "retail" : 14000,
            "savings" : 500,
            "percentage_savings" : 12
        },
        "details" : {
            "title" : "Master",
            "director" : [
                "rex",
                "peter"
            ],
            "writer" : [
                "sam",
                "jones"
            ],
            "length" : "3 hours"
        }
    }
```

QUESTION 4: All products with a discount greater than 10%, sorted by descending percentage discount.

> db.products.find({"pricing.list":{$gt:10}}).sort({"pricing.percentage_savings":1});

{ "_id" : "p01", "type" : "Audio Album", "title" : "Bergmans volume15", "description" : "by Fr Bergmans", "release_date" : "2020-02-15", "shipping" : { "weight" : 6, "dimensions" : { "width" : 10, "height" : 10, "depth" : 1 } }, "pricing" : { "list" : 1200, "retail" : 1100, "savings" : 100, "percentage_savings" : 8 }, "details" : { "title" : "jeba thotta jeya geethangal", "artisrt" : "Fr Bergmans", "genre" : ["folk", "Spiritual"], "tracks" : ["Song1", "Song2", "Song3", "Song4"] } }

{ "_id" : "p02", "type" : "Movie", "title" : "Mater", "description" : "Movie by Actor Vijay", "release_date" : "2020-03-14", "shipping" : { "weight" : 10, "dimensions" : { "width" : 20, "height" : 10, "depth" : 2 } }, "pricing" : { "list" : 15000, "retail" : 14000, "savings" : 500, "percentage_savings" : 12 }, "details" : { "title" : "Master", "director" : ["rex", "peter"], "writer" : ["sam", "jones"], "length" : "3 hours" } }

QUESTION 5: Find the documents for the audio album of folk genre,sorted in reverse choronological order.

> db.products.find({"details.genre":"folk"}).sort({_id:-1})

{ "_id" : "p01", "type" : "Audio Album", "title" : "Bergmans volume15", "description" : "by Fr Bergmans", "release_date" : "2020-02-15", "shipping" : { "weight" : 6, "dimensions" : { "width" : 10, "height" : 10, "depth" : 1 } }, "pricing" : { "list" : 1200, "retail" : 1100, "savings" : 100, "percentage_savings" : 8 }, "details" : { "title" : "jeba thotta jeya geethangal", "artist" : "Fr Bergmans", "genre" : ["folk", "spiritual"], "tracks" : ["song1", "song2", "song3", "song4"] } }

QUESTION 6: Find films that is acted by actor 'vijay' , sorted by release date

> db.products.find({description:"Movie by Actor Vijay"}, {title:1,_id:0}) . sort({release_date:1})

{ "title" : "Mater" }

QUESTION 7: Find movies with a particular word in the title.

> db.product.find({title:"Master"});

{ "_id" : "p02", "type" : "Movie", "title" : "Master", "description" : "Movie by Actor Vijay", "release_date" : "2020-03-14", "shipping" : { "weight" : 10, "dimensions" : { "width" : 20, "height" : 10, "depth" : 2 } }, "pricing" : { "list" : 15000, "retail" : 14000, "savings" : 500, "percentage_savings" : 12 }, "details" : { "title" : "Master", "director" : ["Rex", "Peter"], "writer" : ["Sam", "Jones"], "length" : "3 Hours" } }

QUESTION 8: Write atleast 3 queries for product collection that are useful for Ecommerce website.

(1) >db.products.find({},{pricing:1,type:1,_id:0})

{ "type" : "Audio Album", "pricing" : { "list" : 1200, "retail" : 1100, "savings" : 100, "percentage_savings" : 8 } }

{ "type" : "Movie", "pricing" : { "list" : 15000, "retail" : 14000, "savings" : 500, "percentage_savings" : 12 } }

(2) >db.products.find({"shipping.weight":{$not:{$gte:9}}},{pricing:1,type:1 ,_id:0})

{ "type" : "Audio Album", "pricing" : { "list" : 1200, "retail" : 1100, "savings" : 100, "percentage_savings" : 8 } }

(3) >db.products.find({"pricing.savings":{$gte:300}},{pricing:1,type:1, details:1,_id:0})

{ "type" : "Movie", "pricing" : { "list" : 15000, "retail" : 14000, "savings" : 500, "percentage_savings" : 12 }, "details" : { "title" : "Master", "director" : ["rex", "peter"], "writer" : ["sam", "jones"], "length" : "3 hours" } }