| **ID** | **NAME** | **MANUFACTURER** | **PRICE** | **QTY** | **STOCKDATE** | **DEALER** |
| --- | --- | --- | --- | --- | --- | --- |
| **TP01** | **Talcom Powder** | **Persona** | **40** | **45** | **11-02-18** | **Krishna Cosmetik** |
| **FW05** | **Face Wash** | **Attitude** | **45** | **55** | **15-04-18** | **Surbhi Collection** |
| **BS01** | **Bath Soap** | **Persona** | **55** | **80** | **11-02-18** | **Krishna Cosmetik** |
| **SH06** | **Shampoo** | **Patanjali** | **12** | **50** | **05-01-17** | **Surbhi Collection** |
| **FW12** | **Face Wash** | **Loreal** | **95** | **45** | **05-01-16** | **Surbhi Collection** |
| **S5005** | **Ball Pen 0.5** | **Nataraj Classic** | **16** | **100** | **31-03-10** | **Clear Deals** |
| **S5003** | **Ball Pen 0.25** | **Nataraj Classic** | **20** | **150** | **01-01-10** | **Clear Deals** |
| **S5002** | **Gel Pen Premium** | **Pilot Juice** | **14** | **125** | **14-02-10** | **Reliable Stationers** |
| **S5006** | **Gel Pen Classic** | **Pilot Juice** | **22** | **200** | **01-01-10** | **Reliable Stationers** |
| **S5001** | **Eraser Small** | **Apsara** | **15** | **210** | **19-03-09** | **Clear Deals** |
| **S5004** | **Eraser Big** | **Apsara** | **10** | **60** | **12-12-09** | **Clear Deals** |
| **S5009** | **Sharper Classic** | **Nataraj Classic** | **18** | **160** | **23-01-09** | **Classic Plastics** |

**Create collection::**

db.createCollection("Items");

{ ok: 1 }

**Enter Data:**

db.Items.insert({"ID":"TP01","NAME":"Talcom Powder","MANUFACTURER":"Persona","PRICE":40,"QTY":45,"STOCKDATE":"11-02-18","DEALER":"Krishna Cosmetik"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64abac9fc7c542c8ea90295a") }

}

db.Items.insert({"ID":"FW05","NAME":"Face Wash","MANUFACTURER":"Attitude","PRICE":45,"QTY":55,"STOCKDATE":"15-04-18","DEALER":"Surbhi Collection"});db.Items.insert({"ID":"BS01","NAME":"Bath Soap","MANUFACTURER":"Persona","PRICE":55,"QTY":80,"STOCKDATE":"11-02-18","DEALER":"Krishna Cosmetik"});db.Items.insert({"ID":"SH06","NAME":"Shampoo","MANUFACTURER":"Patanjali","PRICE":12,"QTY":50,"STOCKDATE":"05-01-17","DEALER":"Surbhi Collection"});db.Items.insert({"ID":"FW12","NAME":"Face Wash","MANUFACTURER":"Loreal","PRICE":95,"QTY":45,"STOCKDATE":"05-01-16","DEALER":"Surbhi Collection"});db.Items.insert({"ID":"S5005","NAME":"Ball Pen 0.5","MANUFACTURER":"Nitaraj Classic","PRICE":16,"QTY":100,"STOCKDATE":"31-03-10","DEALER":"Clear Deals"});db.Items.insert({"ID":"S5003","NAME":"Ball Pen 0.25","MANUFACTURER":"Nitaraj Classic","PRICE":20,"QTY":150,"STOCKDATE":"01-01-10","DEALER":"Clear Deals"});db.Items.insert({"ID":"S5002","NAME":"Gel Pen Primium","MANUFACTURER":"Pilot Juice","PRICE":14,"QTY":125,"STOCKDATE":"14-02-10","DEALER":"Reliable Stationers"});db.Items.insert({"ID":"S5006","NAME":"Gel Pen Classic","MANUFACTURER":"Pilot Juice","PRICE":22,"QTY":200,"STOCKDATE":"01-01-10","DEALER":"Reliable Stationers"});db.Items.insert({"ID":"S5001","NAME":"Eraser Small","MANUFACTURER":"Apsara","PRICE":15,"QTY":210,"STOCKDATE":"19-03-09","DEALER":"Clear Deals"});db.Items.insert({"ID":"S5004","NAME":"Eraser Big","MANUFACTURER":"Apsara","PRICE":10,"QTY":60,"STOCKDATE":"12-12-09","DEALER":"Clear Deals"});db.Items.insert({"ID":"S5009","NAME":"Sharper Classic","MANUFACTURER":"Nataraj Classic","PRICE":18,"QTY":160,"STOCKDATE":"23-01-09","DEALER":"Classic Plastics"});

1. **Display only the name and price of items, whose manufacturer is “Persona”.**

db.Items.find({MANUFACTURER:{$eq:"Persona"}},{NAME:1,PRICE:1,\_id:0});

[

{ NAME: 'Bath Soap', PRICE: 55 },

{ NAME: 'Talcom Powder', PRICE: 40 }

]

1. **Count the total number of manufacturers.**

db.Items.distinct('MANUFACTURER').length;

8

1. **Display all the item’s details, whose names starts from "Sh".**

db.Items.find({NAME: /^Sh/});

[

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe2"),

ID: 'SH06',

NAME: 'Shampoo',

MANUFACTURER: 'Patanjali',

PRICE: 12,

QTY: 50,

STOCKDATE: '05-01-17',

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2005-01-17T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfea"),

ID: 'S5009',

NAME: 'Sharper Classic',

MANUFACTURER: 'Nataraj Classic',

PRICE: 18,

QTY: 160,

STOCKDATE: '23-01-09',

DEALER: 'Classic Plastics',

STCOKDATE: ISODate("2023-01-09T00:00:00.000Z")

}

]

1. **Display the items details of all different types of pens.**

bmiit2023> db.Items.find({NAME: /.\*Pen\*./ });

[

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe4"),

ID: 'S5005',

NAME: 'Ball Pen 0.5',

MANUFACTURER: 'Nitaraj Classic',

PRICE: 16,

QTY: 100,

STOCKDATE: '31-03-10',

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2031-03-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe5"),

ID: 'S5003',

NAME: 'Ball Pen 0.25',

MANUFACTURER: 'Nitaraj Classic',

PRICE: 20,

QTY: 150,

STOCKDATE: '01-01-10',

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2001-01-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe6"),

ID: 'S5002',

NAME: 'Gel Pen Primium',

MANUFACTURER: 'Pilot Juice',

PRICE: 14,

QTY: 125,

STOCKDATE: '14-02-10',

DEALER: 'Reliable Stationers',

STCOKDATE: ISODate("2014-02-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe7"),

ID: 'S5006',

NAME: 'Gel Pen Classic',

MANUFACTURER: 'Pilot Juice',

PRICE: 22,

QTY: 200,

STOCKDATE: '01-01-10',

DEALER: 'Reliable Stationers',

STCOKDATE: ISODate("2001-01-10T00:00:00.000Z")

}

]

1. **Display only the name and price of product along with quantity, whose price is more than 80.**

db.Items.find({QTY:{$gt:80}},{NAME:1,PRICE:1,QTY:1,\_id:0});

[

{ NAME: 'Ball Pen 0.5', PRICE: 16, QTY: 100 },

{ NAME: 'Ball Pen 0.25', PRICE: 20, QTY: 150 },

{ NAME: 'Gel Pen Primium', PRICE: 14, QTY: 125 },

{ NAME: 'Gel Pen Classic', PRICE: 22, QTY: 200 },

{ NAME: 'Eraser Small', PRICE: 15, QTY: 210 },

{ NAME: 'Sharper Classic', PRICE: 18, QTY: 160 }

]

1. **Show only the item and its price of those items, whose price is less equal to 20.**

db.Items.find({PRICE:{$lte:20}},{NAME:1,PRICE:1,\_id:0});

[

{ NAME: 'Shampoo', PRICE: 12 },

{ NAME: 'Ball Pen 0.5', PRICE: 16 },

{ NAME: 'Ball Pen 0.25', PRICE: 20 },

{ NAME: 'Gel Pen Primium', PRICE: 14 },

{ NAME: 'Eraser Small', PRICE: 15 },

{ NAME: 'Eraser Big', PRICE: 10 },

{ NAME: 'Sharper Classic', PRICE: 18 }

]

1. **Display the details of those items; whose dealer name is “Surbhi Collection” or quantity is more than 100.**

db.Items.find({$or:[{DEALER:"Surbhi

Collection"},{QTY:{$gt:100}}]},{});

[

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe0"),

ID: 'FW05',

NAME: 'Face Wash',

MANUFACTURER: 'Attitude',

PRICE: 45,

QTY: 55,

STOCKDATE: '15-04-18',

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2015-04-18T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe2"),

ID: 'SH06',

NAME: 'Shampoo',

MANUFACTURER: 'Patanjali',

PRICE: 12,

QTY: 50,

STOCKDATE: '05-01-17',

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2005-01-17T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe3"),

ID: 'FW12',

NAME: 'Face Wash',

MANUFACTURER: 'Loreal',

PRICE: 95,

QTY: 45,

STOCKDATE: '05-01-16',

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2005-01-16T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe5"),

ID: 'S5003',

NAME: 'Ball Pen 0.25',

MANUFACTURER: 'Nitaraj Classic',

PRICE: 20,

QTY: 150,

STOCKDATE: '01-01-10',

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2001-01-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe6"),

ID: 'S5002',

NAME: 'Gel Pen Primium',

MANUFACTURER: 'Pilot Juice',

PRICE: 14,

QTY: 125,

STOCKDATE: '14-02-10',

DEALER: 'Reliable Stationers',

STCOKDATE: ISODate("2014-02-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe7"),

ID: 'S5006',

NAME: 'Gel Pen Classic',

MANUFACTURER: 'Pilot Juice',

PRICE: 22,

QTY: 200,

STOCKDATE: '01-01-10',

DEALER: 'Reliable Stationers',

STCOKDATE: ISODate("2001-01-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe8"),

ID: 'S5001',

NAME: 'Eraser Small',

MANUFACTURER: 'Apsara',

PRICE: 15,

QTY: 210,

STOCKDATE: '19-03-09',

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2019-03-09T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfea"),

ID: 'S5009',

NAME: 'Sharper Classic',

MANUFACTURER: 'Nataraj Classic',

PRICE: 18,

QTY: 160,

STOCKDATE: '23-01-09',

DEALER: 'Classic Plastics',

STCOKDATE: ISODate("2023-01-09T00:00:00.000Z")

}

]

1. **Show the details of items, whose quantity is in the range of 50 to 100.**

db.Items.find({$and:[{QTY:{$gte:50}},{QTY:{$lte:100}}]});

[

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe0"),

ID: 'FW05',

NAME: 'Face Wash',

MANUFACTURER: 'Attitude',

PRICE: 45,

QTY: 55,

STOCKDATE: '15-04-18',

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2015-04-18T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe1"),

ID: 'BS01',

NAME: 'Bath Soap',

MANUFACTURER: 'Persona',

PRICE: 55,

QTY: 80,

STOCKDATE: '11-02-18',

DEALER: 'Krishna Cosmetik',

STCOKDATE: ISODate("2011-02-18T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe2"),

ID: 'SH06',

NAME: 'Shampoo',

MANUFACTURER: 'Patanjali',

PRICE: 12,

QTY: 50,

STOCKDATE: '05-01-17',

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2005-01-17T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe4"),

ID: 'S5005',

NAME: 'Ball Pen 0.5',

MANUFACTURER: 'Nitaraj Classic',

PRICE: 16,

QTY: 100,

STOCKDATE: '31-03-10',

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2031-03-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe9"),

ID: 'S5004',

NAME: 'Eraser Big',

MANUFACTURER: 'Apsara',

PRICE: 10,

QTY: 60,

STOCKDATE: '12-12-09',

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2012-12-09T00:00:00.000Z")

}

]

1. **Increase the price of items by 10.**

db.Items.updateMany({},{$inc:{PRICE:10}});

{ insertedId: null,

acknowledged: true,

insertedId: null,,

matchedCount: 12,

modifiedCount: 12,

upsertedCount: 0

}

1. **Decrease the quantity of items by 30**.

db.Items.updateMany({},{$inc:{QTY:-30}});

{

acknowledged: true,

insertedId: null,

matchedCount: 12,

modifiedCount: 12,

upsertedCount: 0

}

1. **Update the price of items by increasing 15%.**

db.Items.updateMany({},{$mul:{PRICE:1.15}});

{

acknowledged: true,

insertedId: null,

matchedCount: 12,

modifiedCount: 12,

upsertedCount: 0

}

1. **Find the maximum and minimum price of item in a single query.**

db.Items.aggregate([{$group:{\_id:null,maxPrice:{$max:"$PRICE"},minPrice:{$min:"$PRICE"}}}])

[ { \_id: null, maxPrice: 132.25, minPrice: 34.5 } ]

1. **Calculate the average of item price.**

db.Items.aggregate([{$group:{\_id:null,avragePrice:{$avg:"$PRICE"}}}]);

[ { \_id: null, avragePrice: 57.69166666666666 } ]

1. **Calculate the total amount of items and find the average of it.**

db.Items.aggregate([{$group:{\_id:null,totalItems:{$sum:1},avrageQuantity:{$avg:"$QTY"}}}])

[ { \_id: null, totalItems: 12, avrageQuantity: 76.66666666666667 } ]

1. **Display all item names and its price in following format:  
   Talcom Powder price is 40. [Hint: $concat]**

db.Items.aggregate([{$project:{\_id:0,itemInfo:{$concat:["$NAME"," price is ",{$toString:"$PRICE"},"."]}}}]);

[

{ itemInfo: 'Talcom Powder price is 69.' },

{ itemInfo: 'Face Wash price is 74.75.' },

{ itemInfo: 'Bath Soap price is 86.25.' },

{ itemInfo: 'Shampoo price is 36.8.' },

{ itemInfo: 'Face Wash price is 132.25.' },

{ itemInfo: 'Ball Pen 0.5 price is 41.4.' },

{ itemInfo: 'Ball Pen 0.25 price is 46.' },

{ itemInfo: 'Gel Pen Primium price is 39.1.' },

{ itemInfo: 'Gel Pen Classic price is 48.3.' },

{ itemInfo: 'Eraser Small price is 40.25.' },

{ itemInfo: 'Eraser Big price is 34.5.' },

{ itemInfo: 'Sharper Classic price is 43.7.' }

]

1. **Display all item names and its stock date in following format: The Ball Pen 0.5 stock date is 2010-03-31.**

db.Items.updateMany({STOCKDATE:{$type:"string"}},[{$set:{STOCKDATE:{$toDate:"$STOCKDATE"}}}])

{

acknowledged: true,

insertedId: null,

matchedCount: 12,

modifiedCount: 12,

upsertedCount: 0

}

1. **Show all item names with its price and stockdate.  
   [Note: The “stoctdate” format must be as 21st November 2019]**
2. **Arrange all the item’s details according to the item in ascending order.**

db.Items.find().sort({ NAME: 1 })

[

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe5"),

ID: 'S5003',

NAME: 'Ball Pen 0.25',

MANUFACTURER: 'Nitaraj Classic',

PRICE: 46,

QTY: 120,

STOCKDATE: ISODate("2001-01-10T00:00:00.000Z"),

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2001-01-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe4"),

ID: 'S5005',

NAME: 'Ball Pen 0.5',

MANUFACTURER: 'Nitaraj Classic',

PRICE: 41.4,

QTY: 70,

STOCKDATE: ISODate("2031-03-10T00:00:00.000Z"),

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2031-03-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe1"),

ID: 'BS01',

NAME: 'Bath Soap',

MANUFACTURER: 'Persona',

PRICE: 86.25,

QTY: 50,

STOCKDATE: ISODate("2011-02-18T00:00:00.000Z"),

DEALER: 'Krishna Cosmetik',

STCOKDATE: ISODate("2011-02-18T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe9"),

ID: 'S5004',

NAME: 'Eraser Big',

MANUFACTURER: 'Apsara',

PRICE: 34.5,

QTY: 30,

STOCKDATE: ISODate("2012-12-09T00:00:00.000Z"),

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2012-12-09T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe8"),

ID: 'S5001',

NAME: 'Eraser Small',

MANUFACTURER: 'Apsara',

PRICE: 40.25,

QTY: 180,

STOCKDATE: ISODate("2019-03-09T00:00:00.000Z"),

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2019-03-09T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe0"),

ID: 'FW05',

NAME: 'Face Wash',

MANUFACTURER: 'Attitude',

PRICE: 74.75,

QTY: 25,

STOCKDATE: ISODate("2015-04-18T00:00:00.000Z"),

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2015-04-18T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe3"),

ID: 'FW12',

NAME: 'Face Wash',

MANUFACTURER: 'Loreal',

PRICE: 132.25,

QTY: 15,

STOCKDATE: ISODate("2005-01-16T00:00:00.000Z"),

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2005-01-16T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe7"),

ID: 'S5006',

NAME: 'Gel Pen Classic',

MANUFACTURER: 'Pilot Juice',

PRICE: 48.3,

QTY: 170,

STOCKDATE: ISODate("2001-01-10T00:00:00.000Z"),

DEALER: 'Reliable Stationers',

STCOKDATE: ISODate("2001-01-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe6"),

ID: 'S5002',

NAME: 'Gel Pen Primium',

MANUFACTURER: 'Pilot Juice',

PRICE: 39.099999999999994,

QTY: 95,

STOCKDATE: ISODate("2014-02-10T00:00:00.000Z"),

DEALER: 'Reliable Stationers',

STCOKDATE: ISODate("2014-02-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe2"),

ID: 'SH06',

NAME: 'Shampoo',

MANUFACTURER: 'Patanjali',

PRICE: 36.8,

QTY: 20,

STOCKDATE: ISODate("2005-01-17T00:00:00.000Z"),

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2005-01-17T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfea"),

ID: 'S5009',

NAME: 'Sharper Classic',

MANUFACTURER: 'Nataraj Classic',

PRICE: 43.699999999999996,

QTY: 130,

STOCKDATE: ISODate("2023-01-09T00:00:00.000Z"),

DEALER: 'Classic Plastics',

STCOKDATE: ISODate("2023-01-09T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e262bbfbd14e9d6cfdf"),

ID: 'TP01',

NAME: 'Talcom Powder',

MANUFACTURER: 'Persona',

PRICE: 69,

QTY: 15,

STOCKDATE: ISODate("2011-02-18T00:00:00.000Z"),

DEALER: 'Krishna Cosmetik',

STCOKDATE: ISODate("2011-02-18T00:00:00.000Z")

}

]

1. **Display details of all stock items in decreasing order of StockDate.**

db.Items.find().sort({ STOCKDATE: -1 })

[

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe4"),

ID: 'S5005',

NAME: 'Ball Pen 0.5',

MANUFACTURER: 'Nitaraj Classic',

PRICE: 41.4,

QTY: 70,

STOCKDATE: ISODate("2031-03-10T00:00:00.000Z"),

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2031-03-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfea"),

ID: 'S5009',

NAME: 'Sharper Classic',

MANUFACTURER: 'Nataraj Classic',

PRICE: 43.699999999999996,

QTY: 130,

STOCKDATE: ISODate("2023-01-09T00:00:00.000Z"),

DEALER: 'Classic Plastics',

STCOKDATE: ISODate("2023-01-09T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe8"),

ID: 'S5001',

NAME: 'Eraser Small',

MANUFACTURER: 'Apsara',

PRICE: 40.25,

QTY: 180,

STOCKDATE: ISODate("2019-03-09T00:00:00.000Z"),

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2019-03-09T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe0"),

ID: 'FW05',

NAME: 'Face Wash',

MANUFACTURER: 'Attitude',

PRICE: 74.75,

QTY: 25,

STOCKDATE: ISODate("2015-04-18T00:00:00.000Z"),

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2015-04-18T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe6"),

ID: 'S5002',

NAME: 'Gel Pen Primium',

MANUFACTURER: 'Pilot Juice',

PRICE: 39.099999999999994,

QTY: 95,

STOCKDATE: ISODate("2014-02-10T00:00:00.000Z"),

DEALER: 'Reliable Stationers',

STCOKDATE: ISODate("2014-02-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe9"),

ID: 'S5004',

NAME: 'Eraser Big',

MANUFACTURER: 'Apsara',

PRICE: 34.5,

QTY: 30,

STOCKDATE: ISODate("2012-12-09T00:00:00.000Z"),

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2012-12-09T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e262bbfbd14e9d6cfdf"),

ID: 'TP01',

NAME: 'Talcom Powder',

MANUFACTURER: 'Persona',

PRICE: 69,

QTY: 15,

STOCKDATE: ISODate("2011-02-18T00:00:00.000Z"),

DEALER: 'Krishna Cosmetik',

STCOKDATE: ISODate("2011-02-18T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe1"),

ID: 'BS01',

NAME: 'Bath Soap',

MANUFACTURER: 'Persona',

PRICE: 86.25,

QTY: 50,

STOCKDATE: ISODate("2011-02-18T00:00:00.000Z"),

DEALER: 'Krishna Cosmetik',

STCOKDATE: ISODate("2011-02-18T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe2"),

ID: 'SH06',

NAME: 'Shampoo',

MANUFACTURER: 'Patanjali',

PRICE: 36.8,

QTY: 20,

STOCKDATE: ISODate("2005-01-17T00:00:00.000Z"),

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2005-01-17T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe3"),

ID: 'FW12',

NAME: 'Face Wash',

MANUFACTURER: 'Loreal',

PRICE: 132.25,

QTY: 15,

STOCKDATE: ISODate("2005-01-16T00:00:00.000Z"),

DEALER: 'Surbhi Collection',

STCOKDATE: ISODate("2005-01-16T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe5"),

ID: 'S5003',

NAME: 'Ball Pen 0.25',

MANUFACTURER: 'Nitaraj Classic',

PRICE: 46,

QTY: 120,

STOCKDATE: ISODate("2001-01-10T00:00:00.000Z"),

DEALER: 'Clear Deals',

STCOKDATE: ISODate("2001-01-10T00:00:00.000Z")

},

{

\_id: ObjectId("64ae2e872bbfbd14e9d6cfe7"),

ID: 'S5006',

NAME: 'Gel Pen Classic',

MANUFACTURER: 'Pilot Juice',

PRICE: 48.3,

QTY: 170,

STOCKDATE: ISODate("2001-01-10T00:00:00.000Z"),

DEALER: 'Reliable Stationers',

STCOKDATE: ISODate("2001-01-10T00:00:00.000Z")

}

]

1. **Find the manufacturer whose dealer is not Reliable Stationers, Clear Deals and Krishna Cosmetik.**

db.Items.distinct("MANUFACTURER", { DEALER: { $nin: ["Reliable Stationers", "Clear Deals", "Krishna Cosmetik"] } })

[ 'Attitude', 'Loreal', 'Nataraj Classic', 'Patanjali' ]

1. **Show all the items in upper case. [Hint: $toUpper]**

db.Items.aggregate([ { $project: { \_id: 0, NAME: { $toUpper: "$NAME" }, MANUFACTURER: { $toUpper: "$MANUFACTURER" }, PRICE: 1, QTY: 1, STOCKDATE: 1, DEALER: { $toUpper: "$DEALER" } } } ])

[

{

PRICE: 69,

QTY: 15,

STOCKDATE: ISODate("2011-02-18T00:00:00.000Z"),

NAME: 'TALCOM POWDER',

MANUFACTURER: 'PERSONA',

DEALER: 'KRISHNA COSMETIK'

},

{

PRICE: 74.75,

QTY: 25,

STOCKDATE: ISODate("2015-04-18T00:00:00.000Z"),

NAME: 'FACE WASH',

MANUFACTURER: 'ATTITUDE',

DEALER: 'SURBHI COLLECTION'

},

{

PRICE: 86.25,

QTY: 50,

STOCKDATE: ISODate("2011-02-18T00:00:00.000Z"),

NAME: 'BATH SOAP',

MANUFACTURER: 'PERSONA',

DEALER: 'KRISHNA COSMETIK'

},

{

PRICE: 36.8,

QTY: 20,

STOCKDATE: ISODate("2005-01-17T00:00:00.000Z"),

NAME: 'SHAMPOO',

MANUFACTURER: 'PATANJALI',

DEALER: 'SURBHI COLLECTION'

},

{

PRICE: 132.25,

QTY: 15,

STOCKDATE: ISODate("2005-01-16T00:00:00.000Z"),

NAME: 'FACE WASH',

MANUFACTURER: 'LOREAL',

DEALER: 'SURBHI COLLECTION'

},

{

PRICE: 41.4,

QTY: 70,

STOCKDATE: ISODate("2031-03-10T00:00:00.000Z"),

NAME: 'BALL PEN 0.5',

MANUFACTURER: 'NITARAJ CLASSIC',

DEALER: 'CLEAR DEALS'

},

{

PRICE: 46,

QTY: 120,

STOCKDATE: ISODate("2001-01-10T00:00:00.000Z"),

NAME: 'BALL PEN 0.25',

MANUFACTURER: 'NITARAJ CLASSIC',

DEALER: 'CLEAR DEALS'

},

{

PRICE: 39.099999999999994,

QTY: 95,

STOCKDATE: ISODate("2014-02-10T00:00:00.000Z"),

NAME: 'GEL PEN PRIMIUM',

MANUFACTURER: 'PILOT JUICE',

DEALER: 'RELIABLE STATIONERS'

},

{

PRICE: 48.3,

QTY: 170,

STOCKDATE: ISODate("2001-01-10T00:00:00.000Z"),

NAME: 'GEL PEN CLASSIC',

MANUFACTURER: 'PILOT JUICE',

DEALER: 'RELIABLE STATIONERS'

},

{

PRICE: 40.25,

QTY: 180,

STOCKDATE: ISODate("2019-03-09T00:00:00.000Z"),

NAME: 'ERASER SMALL',

MANUFACTURER: 'APSARA',

DEALER: 'CLEAR DEALS'

},

{

PRICE: 34.5,

QTY: 30,

STOCKDATE: ISODate("2012-12-09T00:00:00.000Z"),

NAME: 'ERASER BIG',

MANUFACTURER: 'APSARA',

DEALER: 'CLEAR DEALS'

},

{

PRICE: 43.699999999999996,

QTY: 130,

STOCKDATE: ISODate("2023-01-09T00:00:00.000Z"),

NAME: 'SHARPER CLASSIC',

MANUFACTURER: 'NATARAJ CLASSIC',

DEALER: 'CLASSIC PLASTICS'

}

]

1. **Display only the item names with its length. [Hint: { $strLenCP: "$<field\_name>" }**

db.Items.aggregate([ { $project: { \_id: 0, ItemName: "$NAME", NameLength: { $strLenCP: "$NAME" } } } ])

[ { ItemName: 'Talcom Powder', NameLength: 13 },

{ ItemName: 'Talcom Powder', NameLength: 13 },

{ ItemName: 'Face Wash', NameLength: 9 },

{ ItemName: 'Bath Soap', NameLength: 9 },

{ ItemName: 'Shampoo', NameLength: 7 },},

{ ItemName: 'Face Wash', NameLength: 9 },2 },

{ ItemName: 'Ball Pen 0.5', NameLength: 12 },,

{ ItemName: 'Ball Pen 0.25', NameLength: 13 },},

{ ItemName: 'Gel Pen Primium', NameLength: 15 },

{ ItemName: 'Gel Pen Classic', NameLength: 15 },

{ ItemName: 'Eraser Small', NameLength: 12 },

{ ItemName: 'Eraser Big', NameLength: 10 },15 }

{ ItemName: 'Sharper Classic', NameLength: 15 }

]

1. **Show all the manufacturers of items in small letters.**

db.Items.aggregate([ { $project: { \_id: 0, Manufacturer: { $toLower: "$MANUFACTURER" } } } ])

[

{ Manufacturer: 'persona' },

{ Manufacturer: 'attitude' },

{ Manufacturer: 'persona' },

{ Manufacturer: 'patanjali' },

{ Manufacturer: 'loreal' },

{ Manufacturer: 'nitaraj classic' },

{ Manufacturer: 'nitaraj classic' },

{ Manufacturer: 'pilot juice' },

{ Manufacturer: 'pilot juice' },

{ Manufacturer: 'apsara' },

{ Manufacturer: 'apsara' },

{ Manufacturer: 'nataraj classic' }

1. **Count the total number of dealers from items collection.**

db.Items.aggregate([ { $group: { \_id: "$DEALER" } }, { $group: { \_id: null, totalDealers: { $sum: 1 } } } ])

[ { \_id: null, totalDealers: 5 } ]

1. **Count total number of items of different dealers.**

db.Items.aggregate([ { $group: { \_id: "$DEALER", totalCount: { $sum: 1 } } } ])

[

{ \_id: 'Classic Plastics', totalCount: 1 },

{ \_id: 'Reliable Stationers', totalCount: 2 },

{ \_id: 'Krishna Cosmetik', totalCount: 2 },

{ \_id: 'Surbhi Collection', totalCount: 3 },

{ \_id: 'Clear Deals', totalCount: 4 }

]

1. **Display the maximum price of items for each dealer.**

db.Items.aggregate([ { $group: { \_id: "$DEALER", maxPrice: { $max: "$PRICE" } } } ])

[

{ \_id: 'Surbhi Collection', maxPrice: 132.25 },

{ \_id: 'Krishna Cosmetik', maxPrice: 86.25 },

{ \_id: 'Clear Deals', maxPrice: 46 },

{ \_id: 'Reliable Stationers', maxPrice: 48.3 },

{ \_id: 'Classic Plastics', maxPrice: 43.699999999999996 }

]

1. **Find the total amount price of items for the date “01-01-2010”.**
2. **Extend the stockdate of items by two months.**
3. **Find the manufacturer(s) whose item price is the lowest among all the items.**
4. **Delete all the records from all the collections.**