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/*=====
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```
Name - Hay Munn Hnin Wai
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UOW Id - 6573277
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Assignment 3 - Task 3
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=====*/
```

```
/* Q(3a) - List the first name and last name of customer who made the order  
ord001.*/
```

```
> db.customerOrder.aggregate([{"$match": {"orders.orderNumber": "ord001"} },  
                               {"$project": {"firstName": 1,  
"lastName":1 , " id":0 }}}]).pretty()  
{ "firstName" : "Andrew", "lastName" : "Smith" }  
{ "firstName" : "Brandon", "lastName" : "Xing" }
```

```
/* Q(3b) - Find the order number (orderNumber) of the order that was attended by a  
staff
```

```
whose staff number = stf890.*/
```

```
>db.customerOrder.aggregate([ {"$unwind": "$orders"},  
                              {"$match": {"orders.staffNumber": "stf890"} },  
                              {"$project" : {"orders.orderNumber" :1 ,  
" id":0 }}}]).pretty()
```

```
{ "orders" : { "orderNumber" : "ord005" } }  
{ "orders" : { "orderNumber" : "ord005" } }  
{ "orders" : { "orderNumber" : "ord004" } }
```

```
/*Q(3c) - Find the first and last name of customer who have made orders on 15-MAY-  
2020. */
```

```
> db.customerOrder.aggregate( [{"$unwind": "$orders"},  
                              {"$match": {"orders.orderDate": {"$eq":  
ISODate("2020-05-15T00:00:00Z")}}}],  
                              {"$project": {"firstName" :1, "lastName":1,  
" id":0 }}}]).pretty()
```

```
{ "firstName" : "Jennifer", "lastName" : "Brown" }
```

```
/* Q(3d) - Find the total number of orders made by each customer. For each  
customer, list
```

```
his/her email address and the total number of orders performed.*/
```

```
> db.customerOrder.aggregate([ {"$project": { "email":1, " id":0, "Total number of  
Orders": {"$size":"$orders" }}} ]).pretty()  
{ "email" : "mark@gmail.com", "Total number of Orders" : 3 }  
{ "email" : "aSmith@gmail.com", "Total number of Orders" : 2 }  
{ "email" : "brandon@gmail.com", "Total number of Orders" : 2 }  
{ "email" : "jBrown@gmail.com", "Total number of Orders" : 2 }
```

```
/* Q(3e) - Change the staff number of order number ord005 to stf789*/
```

```
/*Update Multiple Array Elements In Multiple Documents that Match the given  
ArrayFilters */
```

```
> db.customerOrder.updateMany({}, {"$set": {"orders.$  
[elem].staffNumber":"stf789"}}, {arrayFilters:[{"elem.orderNumber":"ord005"}]})
```

```
{ "acknowledged" : true, "matchedCount" : 4, "modifiedCount" : 3 }  
> db.customerOrder.find().pretty()  
{
```

```

    "_id" : ObjectId("5ecb0fddcfd6327d537e4590"),
    "firstName" : "Andrew",
    "lastName" : "Lee",
    "DOB" : ISODate("1974-10-28T00:00:00Z"),
    "phone" : "+1 (959) 567-3312",
    "email" : "mark@gmail.com",
    "address" : {
      "street" : "Cornish Street, Victoria",
      "houseNumber" : "68",
      "postalCode" : "3024",
      "country" : "Australia"
    },
    "language" : [
      "English",
      "Mandarin"
    ],
    "balance" : 0,
    "orders" : [
      {
        "orderNumber" : "ord003",
        "orderDate" : ISODate("2020-01-10T00:00:00Z"),
        "staffNumber" : "stf789",
        "lineItem" : [
          {
            "lineNum" : 1,
            "productCode" : "p001",
            "productDesc" : "Note-book",
            "orderQty" : 2,
            "price" : {
              "currency" : "SGD",
              "value" : 4800
            }
          },
          {
            "lineNum" : 2,
            "productCode" : "s005",
            "productDesc" : "256GB MicroSD",
            "orderQty" : 1,
            "price" : {
              "currency" : "USD",
              "value" : 90
            }
          },
          {
            "lineNum" : 3,
            "productCode" : "a001",
            "productDesc" : "ear-piece",
            "orderQty" : 1,
            "price" : {
              "currency" : "SGD",
              "value" : 10
            }
          }
        ]
      },
      {
        "orderNumber" : "ord003",
        "orderDate" : ISODate("2020-03-17T00:00:00Z"),
        "staffNumber" : "stf444",

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"lineItem" : [
  {
    "lineNum" : 1,
    "productCode" : "p001",
    "productDesc" : "Note-book",
    "orderQty" : 2,
    "price" : {
      "currency" : "SGD",
      "value" : 4800
    }
  },
  {
    "lineNum" : 2,
    "productCode" : "s005",
    "productDesc" : "4TB Hard-disk",
    "orderQty" : 1,
    "price" : {
      "currency" : "USD",
      "value" : 350
    }
  },
  {
    "lineNum" : 3,
    "productCode" : "a001",
    "productDesc" : "ear-piece",
    "orderQty" : 1,
    "price" : {
      "currency" : "SGD",
      "value" : 10
    }
  }
]
},
{
  "orderNumber" : "ord005",
  "orderDate" : ISODate("2020-02-22T00:00:00Z"),
  "staffNumber" : "stf789",
  "lineItem" : [
    {
      "lineNum" : 1,
      "productCode" : "p002",
      "productDesc" : "Personal Computer",
      "orderQty" : 1,
      "price" : {
        "currency" : "SGD",
        "value" : 1400
      }
    },
    {
      "lineNum" : 2,
      "productCode" : "a005",
      "productDesc" : "Laser Printer",
      "orderQty" : 1,
      "price" : {
        "currency" : "USD",
        "value" : 250
      }
    }
  ]
}
]

```

```

    }
  ]
}
{
  "_id" : ObjectId("5ecb0fddcfd6327d537e4591"),
  "firstName" : "Andrew",
  "lastName" : "Smith",
  "DOB" : ISODate("1970-05-10T00:00:00Z"),
  "email" : "aSmith@gmail.com",
  "address" : {
    "street" : "Lafayette Lane West Lafayette",
    "houseNumber" : "734",
    "postalCode" : "47906",
    "country" : "USA"
  },
  "language" : [
    "English"
  ],
  "balance" : 2600,
  "orders" : [
    {
      "orderNumber" : "ord001",
      "orderDate" : ISODate("2020-04-23T00:00:00Z"),
      "staffNumber" : "stf123",
      "lineItem" : [
        {
          "lineNum" : 1,
          "productCode" : "p001",
          "productDesc" : "Note-book",
          "orderQty" : 2,
          "price" : {
            "currency" : "SGD",
            "value" : 4800
          }
        },
        {
          "lineNum" : 2,
          "productCode" : "s005",
          "productDesc" : "2TB Hard-disk",
          "orderQty" : 1,
          "price" : {
            "currency" : "USD",
            "value" : 150
          }
        },
        {
          "lineNum" : 3,
          "productCode" : "a001",
          "productDesc" : "ear-piece",
          "orderQty" : 1,
          "price" : {
            "currency" : "SGD",
            "value" : 10
          }
        }
      ]
    },
    {
      "orderNumber" : "ord005",

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        "orderDate" : ISODate("2020-04-16T00:00:00Z"),
        "staffNumber" : "stf789",
        "lineItem" : [
            {
                "lineNum" : 1,
                "productCode" : "p002",
                "productDesc" : "Personal Computer",
                "orderQty" : 1,
                "price" : {
                    "currency" : "SGD",
                    "value" : 1400
                }
            },
            {
                "lineNum" : 2,
                "productCode" : "a005",
                "productDesc" : "Laser Printer",
                "orderQty" : 1,
                "price" : {
                    "currency" : "USD",
                    "value" : 250
                }
            }
        ]
    }
}

{
    "_id" : ObjectId("5ecb0fddcfd6327d537e4592"),
    "firstName" : "Brandon",
    "lastName" : "Xing",
    "DOB" : ISODate("1984-02-09T00:00:00Z"),
    "phone" : "+65 (65) 697288",
    "email" : "brandon@gmail.com",
    "address" : {
        "street" : "Boon Keng Road",
        "houseNumber" : "103",
        "postalCode" : "339774",
        "country" : "Singapore"
    },
    "language" : [
        "English",
        "Mandarin",
        "Japanese"
    ],
    "balance" : 300,
    "orders" : [
        {
            "orderNumber" : "ord001",
            "orderDate" : ISODate("2020-02-10T00:00:00Z"),
            "staffNumber" : "stf123",
            "lineItem" : [
                {
                    "lineNum" : 1,
                    "productCode" : "p001",
                    "productDesc" : "Note-book",
                    "orderQty" : 2,
                    "price" : {
                        "currency" : "SGD",

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        "value" : 4800
    },
    {
        "lineNum" : 2,
        "productCode" : "s005",
        "productDesc" : "512GB MicroSD",
        "orderQty" : 1,
        "price" : {
            "currency" : "USD",
            "value" : 90
        }
    },
    {
        "lineNum" : 3,
        "productCode" : "a001",
        "productDesc" : "ear-piece",
        "orderQty" : 1,
        "price" : {
            "currency" : "SGD",
            "value" : 10
        }
    }
]
},
{
    "orderNumber" : "ord005",
    "orderDate" : ISODate("2020-04-10T00:00:00Z"),
    "staffNumber" : "stf789",
    "lineItem" : [
        {
            "lineNum" : 1,
            "productCode" : "p002",
            "productDesc" : "Mobile phone",
            "orderQty" : 1,
            "price" : {
                "currency" : "SGD",
                "value" : 1400
            }
        },
        {
            "lineNum" : 2,
            "productCode" : "a005",
            "productDesc" : "Laser Printer",
            "orderQty" : 1,
            "price" : {
                "currency" : "USD",
                "value" : 250
            }
        }
    ]
}
]
}
{
    "_id" : ObjectId("5ecb0fddcfd6327d537e4593"),
    "firstName" : "Jennifer",
    "lastName" : "Brown",
    "DOB" : ISODate("1963-03-06T00:00:00Z"),

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```

"email" : "jBrown@gmail.com",
"address" : {
    "street" : "Steven Road",
    "houseNumber" : "321",
    "postalCode" : "847392",
    "country" : "Singapore"
},
"language" : [
    "English",
    "German"
],
"balance" : 1200,
"orders" : [
    {
        "orderNumber" : "ord003",
        "orderDate" : ISODate("2020-05-15T00:00:00Z"),
        "staffNumber" : "stf123",
        "lineItem" : [
            {
                "lineNum" : 1,
                "productCode" : "p001",
                "productDesc" : "Note-book",
                "orderQty" : 2,
                "price" : {
                    "currency" : "SGD",
                    "value" : 4800
                }
            },
            {
                "lineNum" : 2,
                "productCode" : "s005",
                "productDesc" : "4TB Hard-disk",
                "orderQty" : 1,
                "price" : {
                    "currency" : "USD",
                    "value" : 350
                }
            },
            {
                "lineNum" : 3,
                "productCode" : "a001",
                "productDesc" : "ear-piece",
                "orderQty" : 1,
                "price" : {
                    "currency" : "SGD",
                    "value" : 10
                }
            }
        ]
    },
    {
        "orderNumber" : "ord004",
        "orderDate" : ISODate("2020-02-25T00:00:00Z"),
        "staffNumber" : "stf890",
        "lineItem" : [
            {
                "lineNum" : 1,
                "productCode" : "p002",
                "productDesc" : "Personal Computer",

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        "orderQty" : 1,
        "price" : {
            "currency" : "SGD",
            "value" : 1400
        }
    },
    {
        "lineNum" : 2,
        "productCode" : "a005",
        "productDesc" : "Laser Printer",
        "orderQty" : 1,
        "price" : {
            "currency" : "USD",
            "value" : 250
        }
    }
]
}

```

/* Q(3f) -Delete from a collection the documents that contain information about the customers whose first name is Andrew and the last name is Smith or customers who live in Singapore. */

```

> db.customerOrder.deleteMany( {"$or": [{"$and":[{"firstName":"Andrew",
"lastName":"Smith"}]}, {"address.country":"Singapore"}]})
{ "acknowledged" : true, "deletedCount" : 3 }

```

```

> db.customerOrder.find().pretty()
{
  "_id" : ObjectId("5ecb1325cfd6327d537e45a0"),
  "firstName" : "Andrew",
  "lastName" : "Lee",
  "DOB" : ISODate("1974-10-28T00:00:00Z"),
  "phone" : "+1 (959) 567-3312",
  "email" : "mark@gmail.com",
  "address" : {
    "street" : "Cornish Street, Victoria",
    "houseNumber" : "68",
    "postalCode" : "3024",
    "country" : "Australia"
  },
  "language" : [
    "English",
    "Mandarin"
  ],
  "balance" : 0,
  "orders" : [
    {
      "orderNumber" : "ord003",
      "orderDate" : ISODate("2020-01-10T00:00:00Z"),
      "staffNumber" : "stf789",
      "lineItem" : [
        {
          "lineNum" : 1,
          "productCode" : "p001",
          "productDesc" : "Note-book",
          "orderQty" : 2,

```



```

        "price" : {
            "currency" : "SGD",
            "value" : 4800
        }
    },
    {
        "lineNum" : 2,
        "productCode" : "s005",
        "productDesc" : "256GB MicroSD",
        "orderQty" : 1,
        "price" : {
            "currency" : "USD",
            "value" : 90
        }
    },
    {
        "lineNum" : 3,
        "productCode" : "a001",
        "productDesc" : "ear-piece",
        "orderQty" : 1,
        "price" : {
            "currency" : "SGD",
            "value" : 10
        }
    }
]
},
{
    "orderNumber" : "ord003",
    "orderDate" : ISODate("2020-03-17T00:00:00Z"),
    "staffNumber" : "stf444",
    "lineItem" : [
        {
            "lineNum" : 1,
            "productCode" : "p001",
            "productDesc" : "Note-book",
            "orderQty" : 2,
            "price" : {
                "currency" : "SGD",
                "value" : 4800
            }
        },
        {
            "lineNum" : 2,
            "productCode" : "s005",
            "productDesc" : "4TB Hard-disk",
            "orderQty" : 1,
            "price" : {
                "currency" : "USD",
                "value" : 350
            }
        },
        {
            "lineNum" : 3,
            "productCode" : "a001",
            "productDesc" : "ear-piece",
            "orderQty" : 1,
            "price" : {
                "currency" : "SGD",

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```

        "value" : 10
    }
}
]
},
{
    "orderNumber" : "ord005",
    "orderDate" : ISODate("2020-02-22T00:00:00Z"),
    "staffNumber" : "stf789",
    "lineItem" : [
        {
            "lineNum" : 1,
            "productCode" : "p002",
            "productDesc" : "Personal Computer",
            "orderQty" : 1,
            "price" : {
                "currency" : "SGD",
                "value" : 1400
            }
        },
        {
            "lineNum" : 2,
            "productCode" : "a005",
            "productDesc" : "Laser Printer",
            "orderQty" : 1,
            "price" : {
                "currency" : "USD",
                "value" : 250
            }
        }
    ]
}
]
}
}
>

```