```
> db.sales.aggregate([
    {
  $group :{
  _id: null,
  maxQty: { $min: '$quantity'},
  },
  },
    {
  $project: {
  _id: 0,
  },
  },
  ]);

< {
    maxQty: 11
  }
> db.sales.aggregate([
    {
  $group :{
  _id: null,
  minQty: { $max: '$quantity'},
  },
  },
    {
  $project: {
  _id: 0,
  },
  },
```

```
> db.sales.aggregate([
    {
$group: {
_id: '$item',
maxQty: { $min : { $multiply: [ '$quantity','$price']},},},},]);
< {
    _id: 'Cappuccino',
    maxQty: 72
  }
  {
    _id: 'Lattes',
    maxQty: 375
  }
  {
    _id: 'Mochas',
    maxQty: 275
  }
  {
    _id: 'Americanos',
    maxQty: 110
  }
test>
```

```
>_MONGOSH

> db.sales.aggregate([{$group:{_id:"$item",sumItems:{$sum:"$quantity"}}}])
< {
    _id: 'Mochas',
    sumItems: 11
  }
  {
    _id: 'Americanos',
    sumItems: 70
  }
  {
    _id: 'Cappuccino',
    sumItems: 49
  }
  {
    _id: 'Lattes',
    sumItems: 55
  }
> db.sales.drop()
< true
> db.sales.insertMany([
    { "_id" : 1, "item" : "Americanos", "price" : 5, "size": "Short", "quantity" : 22, "date" : ISODate("2022-01-15T08:00:00Z") },
    { "_id" : 2, "item" : "Cappuccino", "price" : 6, "size": "Short","quantity" : 12, "date" : ISODate("2022-01-16T09:00:00Z") },
    { "_id" : 3, "item" : "Lattes", "price" : 15, "size": "Grande","quantity" : 25, "date" : ISODate("2022-01-16T09:05:00Z") },
    { "_id" : 4, "item" : "Mochas", "price" : 25,"size": "Tall", "quantity" : 11, "date" : ISODate("2022-02-17T08:00:00Z") },
    { "_id" : 5, "item" : "Americanos", "price" : 10, "size": "Grande","quantity" : 12, "date" : ISODate("2022-02-18T21:06:00Z") },
    { "_id" : 6, "item" : "Cappuccino", "price" : 7, "size": "Tall","quantity" : 20, "date" : ISODate("2022-02-20T10:07:00Z") },
    { "_id" : 7, "item" : "Lattes", "price" : 25,"size": "Tall", "quantity" : 30, "date" : ISODate("2022-02-21T10:08:00Z") },
    { "_id" : 8, "item" : "Americanos", "price" : 10, "size": "Grande","quantity" : 21, "date" : ISODate("2022-02-22T14:09:00Z") },
    { "_id" : 9, "item" : "Cappuccino", "price" : 10, "size": "Grande","quantity" : 17, "date" : ISODate("2022-02-23T14:09:00Z") },
```

```
  {
    _id: 'Mochas',
    itemCount: 1
  }
  {
    _id: 'Americanos',
    itemCount: 4
  }
> db.sales.aggregate([
    {
  $group: {
  _id: '$item',
  itemCount:{ $count: {} },
  },
  },
    {$match: { itemCount: {$gt: 2 } }, },
  ])
< {
    _id: 'Americanos',
    itemCount: 4
  }
  {
    _id: 'Cappuccino',
    itemCount: 3
  }
```

```
>_MONGOSH
> db.sales.aggregate([
    {
  $group: {
  _id: '$item',
  itemCount:{ $count: {} },
  },
  },
  ])
< {
    _id: 'Cappuccino',
    itemCount: 3
  }
  {
    _id: 'Lattes',
    itemCount: 2
  }
  {
    _id: 'Mochas',
    itemCount: 1
  }
  {
    _id: 'Americanos',
    itemCount: 4
  }
```

```
>_MONGOSH

> db.sales.aggregate([
    {
  $group: {
  _id : '$item',
  averageQty: {$avg:{$multiply:[
  '$price','$quantity']
  },},},},])
< {
    _id: 'Mochas',
    averageQty: 275
  }
  {
    _id: 'Americanos',
    averageQty: 140
  }
  {
    _id: 'Cappuccino',
    averageQty: 127.33333333333333
  }
  {
    _id: 'Lattes',
    averageQty: 562.5
  }
> db.sales.drop()
< true
```

```
>_MONGOSH
> db.sales.aggregate([
    {
      $match: {
        price: { $gt: 8 }
      }
    },
    {
      $group: {
        _id: '$item',  // Correct field reference
        averageQty: { $avg: '$quantity' }
      }
    }
  ])
< {
    _id: 'Americanos',
    averageQty: 16.5
  }
  {
    _id: 'Cappuccino',
    averageQty: 17
  }
  {
    _id: 'Mochas',
    averageQty: 11
  }
  {
    _id: 'Lattes',
    averageQty: 27.5
  }
```

```
  }
  {
    _id: 7,
    item: 'Lattes',
    price: 25,
    size: 'Tall',
    quantity: 30,
    date: 2022-02-21T10:08:00.000Z
  }
  {
    _id: 8,
    item: 'Americanos',
    price: 10,
    size: 'Grande',
    quantity: 21,
    date: 2022-02-22T14:09:00.000Z
  }
  {
    _id: 9,
    item: 'Cappuccino',
    price: 10,
    size: 'Grande',
    quantity: 17,
    date: 2022-02-23T14:09:00.000Z
  }
> db.sales.aggregate([
    {
  $match: {
  price: {$gt:8}
```

```
>_MONGOSH
> db.sales.drop()
< true
> db.sales.insertMany([
    { "_id" : 1, "item" : "Americanos", "price" : 5, "size": "Short", "quantity" : 22, "date" : ISODate("2022-01-15T08:00:00Z") },
    { "_id" : 2, "item" : "Cappuccino", "price" : 6, "size": "Short","quantity" : 12, "date" : ISODate("2022-01-16T09:00:00Z") },
    { "_id" : 3, "item" : "Lattes", "price" : 15, "size": "Grande","quantity" : 25, "date" : ISODate("2022-01-16T09:05:00Z") },
    { "_id" : 4, "item" : "Mochas", "price" : 25,"size": "Tall", "quantity" : 11, "date" : ISODate("2022-02-17T08:00:00Z") },
    { "_id" : 5, "item" : "Americanos", "price" : 10, "size": "Grande","quantity" : 12, "date" : ISODate("2022-02-18T21:06:00Z") },
    { "_id" : 6, "item" : "Cappuccino", "price" : 7, "size": "Tall","quantity" : 20, "date" : ISODate("2022-02-20T10:07:00Z") },
    { "_id" : 7, "item" : "Lattes", "price" : 25,"size": "Tall", "quantity" : 30, "date" : ISODate("2022-02-21T10:08:00Z") },
    { "_id" : 8, "item" : "Americanos", "price" : 10, "size": "Grande","quantity" : 21, "date" : ISODate("2022-02-22T14:09:00Z") },
    { "_id" : 9, "item" : "Cappuccino", "price" : 10, "size": "Grande","quantity" : 17, "date" : ISODate("2022-02-23T14:09:00Z") },
    { "_id" : 10, "item" : "Americanos", "price" : 8, "size": "Tall","quantity" : 15, "date" : ISODate("2022-02-25T14:09:00Z")}
]);
< {
    acknowledged: true,
    insertedIds: {
      '0': 1,
      '1': 2,
      '2': 3,
      '3': 4,
      '4': 5,
      '5': 6,
      '6': 7,
      '7': 8,
      '8': 9,
      '9': 10
    }
```

```
>_MONGOSH
> db.sales.aggregate([
    {
  $match: {
  price: {$gt:8}
  }
  },
  ])
< {
    _id: 3,
    item: 'Lattes',
    price: 15,
    size: 'Grande',
    quantity: 25,
    date: 2022-01-16T09:05:00.000Z
  }
  {
    _id: 4,
    item: 'Mochas',
    price: 25,
    size: 'Tall',
    quantity: 11,
    date: 2022-02-17T08:00:00.000Z
  }
  {
    _id: 5,
    item: 'Americanos',
    price: 10,
    size: 'Grande',
    quantity: 12,
```

```
db.sales.aggregate([
  {
$group: {
_id: '$item',
averageQty: {$avg: '$quantity'},
},
},
]);
```

```
{
    _id: 'Mochas',
    averageQty: 11
}
{
    _id: 'Americanos',
    averageQty: 17.5
}
{
    _id: 'Lattes',
    averageQty: 27.5
}
{
    _id: 'Cappuccino',
    averageQty: 16.33333333333332
}
db.sales.aggregate([
  {
$group: {
price : {$gt:8  } ,
averageQty: {$avg: '$quantity'},
```

```
    acknowledged: true,
    insertedIds: {
      '0': 1,
      '1': 2,
      '2': 3,
      '3': 4,
      '4': 5,
      '5': 6,
      '6': 7,
      '7': 8,
      '8': 9,
      '9': 10
    }
  }
```

```
> db.sales.aggregate([
  {
$match: { item: "Americanos"}
},
  {
$group: {
_id : "$size", totalQty: {$sum: "$quantity"}
}
},
  {
$sort: {totalQty: -1}
}
]);
< {
```

```
  }
> db.products.deleteMany({"price":699})
< {
    acknowledged: true,
    deletedCount: 1
  }
```

```
> db.products.deleteMany({price:{$gt:600}})
```
```
< {
    acknowledged: true,
    deletedCount: 2
  }
```

```
> db.products.drop()
```
```
< true
```

```
> db.sales.insertMany([
    { "_id" : 1, "item" : "Americanos", "price" : 5, "size": "Short", "quantity" : 22, "date" : ISODate("2022-01-15T08:00:00Z") },
    { "_id" : 2, "item" : "Cappuccino", "price" : 6, "size": "Short","quantity" : 12, "date" : ISODate("2022-01-16T09:00:00Z") },
    { "_id" : 3, "item" : "Lattes", "price" : 15, "size": "Grande","quantity" : 25, "date" : ISODate("2022-01-16T09:05:00Z") },
    { "_id" : 4, "item" : "Mochas", "price" : 25,"size": "Tall", "quantity" : 11, "date" : ISODate("2022-02-17T08:00:00Z") },
    { "_id" : 5, "item" : "Americanos", "price" : 10, "size": "Grande","quantity" : 12, "date" : ISODate("2022-02-18T21:06:00Z") },
    { "_id" : 6, "item" : "Cappuccino", "price" : 7, "size": "Tall","quantity" : 20, "date" : ISODate("2022-02-20T10:07:00Z") },
    { "_id" : 7, "item" : "Lattes", "price" : 25,"size": "Tall", "quantity" : 30, "date" : ISODate("2022-02-21T10:08:00Z") },
    { "_id" : 8, "item" : "Americanos", "price" : 10, "size": "Grande","quantity" : 21, "date" : ISODate("2022-02-22T14:09:00Z") },
    { "_id" : 9, "item" : "Cappuccino", "price" : 10, "size": "Grande","quantity" : 17, "date" : ISODate("2022-02-23T14:09:00Z") },
    { "_id" : 10, "item" : "Americanos", "price" : 8, "size": "Tall","quantity" : 15, "date" : ISODate("2022-02-25T14:09:00Z")}
]);
```
```
< {
    acknowledged: true,
    insertedIds: {
```

```
db.products.drop()
true
db.products.insertMany([
    { "_id" : 1, "name" : "xPhone", "price" : 799, "releaseDate": ISODate("20
    { "_id" : 2, "name" : "xTablet", "price" : 899, "releaseDate": ISODate("2
    { "_id" : 3, "name" : "SmartTablet", "price" : 899, "releaseDate": ISODat
    { "_id" : 4, "name" : "SmartPad", "price" : 699, "releaseDate": ISODate("
    { "_id" : 5, "name" : "SmartPhone", "price" : 599,"releaseDate": ISODate(
])
{
  acknowledged: true,
  insertedIds: {
    '0': 1,
    '1': 2,
    '2': 3,
    '3': 4,
    '4': 5
  }
}
db.products.deleteOne({})
{
  acknowledged: true,
  deletedCount: 1
}
db.products.deleteMany({"price":699})
{
```