```
mongo
MongoDB shell version: 2.6.10
connecting to: test
> use mmcoe
switched to db mmcoe
> db.createCollection("Product")
{ "ok" : 1 }
db.product.insertMany([{name:"soap",company:"dove",cost:25},{name:"chocolate",company:"5star
",cost:10},{name:"noodles",company:"maggie",cost:12}])
2017-09-26T10:07:33.469+0530 TypeError: Property 'insertMany' of object mmcoe.product is not a
function
db.Product.insertMany([{name:"soap",company:"dove",cost:25},{name:"chocolate",company:"5star
",cost:10},{name:"noodles",company:"maggie",cost:12}])
2017-09-26T10:07:51.783+0530 TypeError: Property 'insertMany' of object mmcoe.Product is not a
function
> db.Product.insertOne({name:"soap",company:"dove",cost:25})
2017-09-26T10:11:51.461+0530 TypeError: Property 'insertOne' of object mmcoe.Product is not a
function
> db.Product.insert({name:"soap",company:"dove",cost:25})
WriteResult({ "nInserted" : 1 })
> db.Product.insert({name:"chocolate",company:"5star",cost:10})
WriteResult({ "nInserted" : 1 })
> db.Product.insert({name:"noodles",company:"maggie",cost:11})
WriteResult({ "nInserted" : 1 })
> db.Product.insert({name:"conditioner",company:"lorealparis",cost:250})
WriteResult({ "nInserted" : 1 })
> db.Product.find().pretty()
{
       " id": ObjectId("59c9daa5b082c45ea5d1c6ec"),
       "name": "soap",
       "company": "dove",
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"cost": 25
}
{
       "_id": ObjectId("59c9dacbb082c45ea5d1c6ed"),
       "name": "chocolate",
       "company": "5star",
       "cost" : 10
}
{
       "_id": ObjectId("59c9daeab082c45ea5d1c6ee"),
       "name": "noodles",
       "company": "maggie",
       "cost" : 11
}
{
       "_id": ObjectId("59c9db2bb082c45ea5d1c6ef"),
       "name": "conditioner",
       "company": "lorealparis",
       "cost" : 250
}
> db.Product.insert({name:"soap",company:"lorealparis",cost:150})
WriteResult({ "nInserted" : 1 })
> db.Product.find().pretty()
{
       "_id": ObjectId("59c9daa5b082c45ea5d1c6ec"),
       "name": "soap",
       "company": "dove",
       "cost" : 25
}
{
       "_id": ObjectId("59c9dacbb082c45ea5d1c6ed"),
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"name": "chocolate",
        "company": "5star",
        "cost": 10
}
{
        "_id": ObjectId("59c9daeab082c45ea5d1c6ee"),
        "name": "noodles",
        "company": "maggie",
        "cost": 11
}
{
        "_id": ObjectId("59c9db2bb082c45ea5d1c6ef"),
        "name": "conditioner",
        "company": "lorealparis",
        "cost": 250
}
{
        "_id": ObjectId("59c9dbe1b082c45ea5d1c6f0"),
        "name": "soap",
        "company": "lorealparis",
        "cost": 150
}
db.Product.aggregate([{'$group':{'_id':$company','maxprice':{'$max':'$cost'},'minprice':{'$min':'$cost
'}}})
2017-09-26T10:27:26.035+0530 SyntaxError: Unexpected string
db.Product.aggregate({'$group':{'_id':'$company','maxprice':{'$max':'$cost'},'minprice':{'$min':'$cost
'}}})
{ "_id" : "lorealparis", "maxprice" : 250, "minprice" : 150 }
{ "_id" : "maggie", "maxprice" : 11, "minprice" : 11 }
{ "_id" : "5star", "maxprice" : 10, "minprice" : 10 }
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{ "_id" : "dove", "maxprice" : 25, "minprice" : 25 }
> db.Product.aggregate({'$group':{'_id':'$company'}})
{ "_id" : "lorealparis" }
{ "_id" : "maggie" }
{ "_id" : "5star" }
{ "_id" : "dove" }
> db.Product.find()
{ "_id" : ObjectId("59c9daa5b082c45ea5d1c6ec"), "name" : "soap", "company" : "dove", "cost" : 25 }
{ "_id" : ObjectId("59c9dacbb082c45ea5d1c6ed"), "name" : "chocolate", "company" : "5star", "cost"
: 10 }
{ "_id" : ObjectId("59c9daeab082c45ea5d1c6ee"), "name" : "noodles", "company" : "maggie", "cost"
: 11 }
{ "_id" : ObjectId("59c9db2bb082c45ea5d1c6ef"), "name" : "conditioner", "company" : "lorealparis",
"cost" : 250 }
{ "_id" : ObjectId("59c9dbe1b082c45ea5d1c6f0"), "name" : "soap", "company" : "lorealparis", "cost"
: 150 }
> db.Prouct.aggregate({'$group':{'_id':'$company'}},{'$sort':{'cost':1}})
> db.Prouct.aggregate({'$group':{'_id':'$company'}},{'$sort':{'cost':1}})
> db.Prouct.aggregate({'$group':{'_id':'$company'}},{'$sort':{cost:1}})
> db.Prouct.aggregate({'$group':{'_id':'$company'}},{'$sort':{cost:1}})
> db.Prouct.aggregate({'$group':{'_id':'$company'}},{'$sort':{'cost:1'}})
2017-09-26T10:32:11.609+0530 SyntaxError: Unexpected token }
> db.Prouct.aggregate({'$group':{' id':'$company'}},{'$sort':{'cost':1}})
> db.Product.aggregate({'$group':{'_id':'$company'}},{'$sort':{'cost':1}})
{ "_id" : "lorealparis" }
{ "_id" : "maggie" }
{ "_id" : "5star" }
{ "_id" : "dove" }
> db.Product.aggregate({'$group':{'_id':'$company'}},{'$sort':{'cost':-1}})
{ "_id" : "lorealparis" }
{ "_id" : "maggie" }
{ "_id" : "5star" }
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{ "_id" : "dove" }
> db.Product.aggregate({'$group':{'_id':'$company'}},{'$sort':{'cost':'-1'}})
assert: command failed: {
        "errmsg": "exception: $sort key ordering must be specified using a number or {$meta:
'textScore'}",
        "code": 15974,
        "ok": 0
}: aggregate failed
Error: command failed: {
        "errmsg": "exception: $sort key ordering must be specified using a number or {$meta:
'textScore'}",
        "code": 15974,
        "ok": 0
}: aggregate failed
  at Error (<anonymous>)
  at doassert (src/mongo/shell/assert.js:11:14)
  at Function.assert.commandWorked (src/mongo/shell/assert.js:244:5)
  at DBCollection.aggregate (src/mongo/shell/collection.js:1149:12)
  at (shell):1:12
2017-09-26T10:33:38.498+0530 Error: command failed: {
        "errmsg": "exception: $sort key ordering must be specified using a number or {$meta:
'textScore'}",
        "code": 15974,
        "ok": 0
}: aggregate failed at src/mongo/shell/assert.js:13
> db.Product.aggregate({'$group':{'_id':'$company'}},{'$sort':{'cost':-1}})
{ "_id" : "lorealparis" }
{ "_id" : "maggie" }
{ "_id" : "5star" }
{ "_id" : "dove" }
> db.Product.aggregate({'$group':{'_id':'$company'}},{'$sort':{'cost':1}})
{ "_id" : "lorealparis" }
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{ "_id" : "maggie" }
{ "_id" : "5star" }
{ "_id" : "dove" }
> db.Product.aggregate({'$limit':1})
{ "_id" : ObjectId("59c9daa5b082c45ea5d1c6ec"), "name" : "soap", "company" : "dove", "cost" : 25 }
> db.Product.aggregate({'$skip':1})
{ "_id" : ObjectId("59c9dacbb082c45ea5d1c6ed"), "name" : "chocolate", "company" : "5star", "cost"
: 10 }
{ "_id" : ObjectId("59c9daeab082c45ea5d1c6ee"), "name" : "noodles", "company" : "maggie", "cost"
: 11 }
{ "_id" : ObjectId("59c9db2bb082c45ea5d1c6ef"), "name" : "conditioner", "company" : "lorealparis",
"cost": 250 }
{ "_id" : ObjectId("59c9dbe1b082c45ea5d1c6f0"), "name" : "soap", "company" : "lorealparis", "cost"
: 150 }
> db.Product.aggregate([{$match:{'company':'dove'}}])
{ "_id" : ObjectId("59c9daa5b082c45ea5d1c6ec"), "name" : "soap", "company" : "dove", "cost" : 25 }
> db.Product.aggregate([{$match:{'company':'lorealparis'}}]).pretty()
{
        "_id": ObjectId("59c9db2bb082c45ea5d1c6ef"),
        "name": "conditioner",
        "company": "lorealparis",
        "cost": 250
}
{
        " id": ObjectId("59c9dbe1b082c45ea5d1c6f0"),
        "name": "soap",
        "company": "lorealparis",
        "cost": 150
}
> db.Product.aggregate({'$match':{'cost':{$gt:250}}}).pretty()
> db.Product.aggregate({'$match':{'cost':{$gt:25}}}).pretty()
{
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"_id": ObjectId("59c9db2bb082c45ea5d1c6ef"),
       "name": "conditioner",
       "company": "lorealparis",
       "cost": 250
}
{
       "_id": ObjectId("59c9dbe1b082c45ea5d1c6f0"),
       "name": "soap",
       "company": "lorealparis",
       "cost" : 150
}
> db.Product.aggregate({'$match':{'cost':{$lt:25}}}).pretty()
{
       "_id": ObjectId("59c9dacbb082c45ea5d1c6ed"),
       "name": "chocolate",
       "company": "5star",
       "cost": 10
}
{
       "_id": ObjectId("59c9daeab082c45ea5d1c6ee"),
       "name": "noodles",
       "company": "maggie",
       "cost" : 11
}
> db.Product.count()
5
> for(i=5;i<10;i++){db.Product.insert({_id:i,name:'soap'+i,cost:Math.floor(Math.random()*120)})};
WriteResult({ "nInserted" : 1 })
> db.Product.find();
{ "_id" : ObjectId("59c9daa5b082c45ea5d1c6ec"), "name" : "soap", "company" : "dove", "cost" : 25 }
```

```
{ "_id" : ObjectId("59c9dacbb082c45ea5d1c6ed"), "name" : "chocolate", "company" : "5star", "cost"
: 10 }
{" id": ObjectId("59c9daeab082c45ea5d1c6ee"), "name": "noodles", "company": "maggie", "cost"
: 11 }
 \{ \verb|"\_id" : ObjectId("59c9db2bb082c45ea5d1c6ef"), \verb|"name" : "conditioner", "company" : "loreal paris", \verb|"company" : "loreal paris", "loreal paris", "loreal paris", "loreal paris", "loreal paris", "loreal paris",
"cost" : 250 }
{ "_id" : ObjectId("59c9dbe1b082c45ea5d1c6f0"), "name" : "soap", "company" : "lorealparis", "cost"
: 150 }
{ "_id" : 5, "name" : "soap5", "cost" : 113 }
{ "_id" : 6, "name" : "soap6", "cost" : 28 }
{ "_id" : 7, "name" : "soap7", "cost" : 27 }
{ "_id" : 8, "name" : "soap8", "cost" : 6 }
{ "_id" : 9, "name" : "soap9", "cost" : 100 }
> for(i=1;i<5;i++){db.Product.insert({_id:i,name:'soap'+i,age:Math.floor(Math.random()*120)})};</pre>
WriteResult({ "nInserted" : 1 })
> db.Product.find();
{ "_id" : ObjectId("59c9daa5b082c45ea5d1c6ec"), "name" : "soap", "company" : "dove", "cost" : 25 }
{ "_id" : ObjectId("59c9dacbb082c45ea5d1c6ed"), "name" : "chocolate", "company" : "5star", "cost"
: 10 }
{ "_id" : ObjectId("59c9daeab082c45ea5d1c6ee"), "name" : "noodles", "company" : "maggie", "cost"
: 11 }
 \{ \ "\_id" : ObjectId ("59c9db2bb082c45ea5d1c6ef"), \ "name" : "conditioner", \ "company" : "loreal paris", \ "company" : "loreal paris" :
"cost" : 250 }
{ "_id" : ObjectId("59c9dbe1b082c45ea5d1c6f0"), "name" : "soap", "company" : "lorealparis", "cost"
: 150 }
{ "_id" : 5, "name" : "soap5", "cost" : 113 }
{ "_id" : 6, "name" : "soap6", "cost" : 28 }
{ "_id" : 7, "name" : "soap7", "cost" : 27 }
{ "_id" : 8, "name" : "soap8", "cost" : 6 }
{ "_id" : 9, "name" : "soap9", "cost" : 100 }
{ "_id" : 1, "name" : "soap1", "age" : 55 }
{ "_id" : 2, "name" : "soap2", "age" : 77 }
{ "_id" : 3, "name" : "soap3", "age" : 33 }
{ "_id" : 4, "name" : "soap4", "age" : 28 }
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> db.Product.save({})
WriteResult({ "nInserted" : 1 })
> db.Product.find({name:'soap5'}).explain();
{
        "cursor": "BasicCursor",
        "isMultiKey" : false,
        "n":1,
        "nscannedObjects": 15,
        "nscanned": 15,
        "nscannedObjectsAllPlans": 15,
        "nscannedAllPlans": 15,
        "scanAndOrder": false,
        "indexOnly": false,
        "nYields": 0,
        "nChunkSkips": 0,
        "millis": 0,
        "server": "mmcoe-desktop:27017",
        "filterSet" : false
}
> db.Product.ensureIndex({name:1});
{
        "createdCollectionAutomatically": false,
        "numIndexesBefore": 1,
        "numIndexesAfter": 2,
        "ok" : 1
}
> db.Product.getIndexes();
[
       {
                "v":1,
                "key" : {
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"_id" : 1
               },
               "name" : "_id_",
               "ns": "mmcoe.Product"
       },
       {
               "v":1,
               "key" : {
                       "name" : 1
               },
               "name" : "name_1",
               "ns": "mmcoe.Product"
       }
]
> db.Product.find({name:'soap5'}).explain();
{
        "cursor": "BtreeCursor name_1",
        "isMultiKey" : false,
        "n":1,
        "nscannedObjects": 1,
        "nscanned": 1,
        "nscannedObjectsAllPlans": 1,
        "nscannedAllPlans": 1,
        "scanAndOrder" : false,
        "indexOnly": false,
        "nYields": 1,
        "nChunkSkips": 0,
        "millis": 60,
       "indexBounds" : {
               "name" : [
                       [
```

```
"soap5",
                                "soap5"
                       ]
               ]
       },
       "server": "mmcoe-desktop:27017",
        "filterSet" : false
}
> db.Product.find({cost:25,name:{'$gt':'soap5','$lt':'soap8'}}).explain();
{
        "cursor": "BtreeCursor name_1",
        "isMultiKey" : false,
        "n":0,
        "nscannedObjects": 2,
        "nscanned": 2,
        "nscannedObjectsAllPlans": 2,
        "nscannedAllPlans": 2,
        "scanAndOrder": false,
        "indexOnly" : false,
        "nYields": 0,
        "nChunkSkips": 0,
        "millis": 0,
        "indexBounds" : {
               "name" : [
                       [
                                "soap5",
                                "soap8"
                       ]
               ]
       },
        "server": "mmcoe-desktop:27017",
```

```
"filterSet" : false
}
> db.Product.ensureIndex({cost:25,tname:1});
{
        "createdCollectionAutomatically": false,
        "numIndexesBefore": 2,
        "numIndexesAfter": 3,
        "ok" : 1
}
> db.Product.getIndexes();
[
       {
               "v" : 1,
               "key" : {
                       "_id" : 1
               },
               "name" : "_id_",
               "ns": "mmcoe.Product"
       },
        {
               "v":1,
               "key" : {
                        "name" : 1
               },
               "name" : "name_1",
               "ns": "mmcoe.Product"
       },
        {
               "v":1,
               "key" : {
                        "cost": 25,
```

```
"tname" : 1
},

"name" : "cost_25_tname_1",

"ns" : "mmcoe.Product"
}

]
```