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MONGODB ASSIGNMENT 2

Update Operations

```
jisl> db.inventory.updateMany({qty: {$lt:15}},{$set:{qty:20}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
jisl> db.inventory.find({ qty: 20 })
[
  {
    _id: ObjectId('687e0ee45a68bf389feec4af'),
    item: 'stickerbook',
    qty: 20,
    tags: [ 'colorful', 'fun' ],
    size: { h: 20, w: 20, uom: 'cm' }
  }
]
```

Delete Operation

```
jisl> db.inventory.deleteMany({item:"stickerbook"})
{ acknowledged: true, deletedCount: 1 }
jisl>
```

Atomicity and Transactions

Creating New collection named games and inserting the values

```
mongodb> db.games.insertOne({_id:1, score: 80})
{ acknowledged: true, insertedId: 1 }
```

Updating the value (updateOne)

Syntax of UpdateOne

```
db.collection.updateOne(
      { field1: "value1" },
      { $set: { field2: "new value" } } // Updates field2 to "new value"
      )
```

UpdateOne

```
mongodb> db.games.updateOne({score:80},{$set:{score:90}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

Again updating the value of score

UpdateOne

```
mongodb> db.games.updateOne({score:80},{$set:{score:90}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}
mongodb> db.games.find()
[ { _id: 1, score: 90 } ]
```

UpdateMany

```
mongodb> db.games.updateMany({_id:{$in:[3,5]}},{$set:{score:100}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
mongodb> db.games.find()
[
  { _id: 1, score: 90 },
  { _id: 2, score: 90 },
  { _id: 3, score: 100 },
  { _id: 4, score: 60 },
  { _id: 5, score: 100 }
]
```

We can update fields other than _id.
We cannot update _id with $set, even in updateOne() or updateMany()

```
mongodb> db.games.updateMany({_id:{$in:[3,5]}},{$set:{_id:6}})
MongoServerError: Performing an update on the path '_id' would modify the im
mutable field '_id'
```

Delete

Inserting a value to be deleted

```
mongodb> db.games.insertOne({_id:2, score: 60})
{ acknowledged: true, insertedId: 2 }
```

```
mongodb> db.games.find()
[ { _id: 1, score: 90 }, { _id: 2, score: 60 } ]
```

deleteOne

```
mongodb> db.games.deleteOne({score:60})
{ acknowledged: true, deletedCount: 1 }
mongodb> db.games.find()
[ { _id: 1, score: 90 } ]
```

Table

```
mongodb> db.games.find()
[
  { _id: 1, score: 90 },
  { _id: 2, score: 90 },
  { _id: 3, score: 100 },
  { _id: 4, score: 60 },
  { _id: 5, score: 100 },
  { _id: 6, score: 85 },
  { _id: 7, score: 85 }
]
```

deleteMany

```
mongodb> db.games.deleteMany({_id:{$in:[6,7]}})
{ acknowledged: true, deletedCount: 2 }
mongodb> db.games.find()
[
  { _id: 1, score: 90 },
  { _id: 2, score: 90 },
  { _id: 3, score: 100 },
  { _id: 4, score: 60 },
  { _id: 5, score: 100 }
]
```

MongoDB Projection

Including Specific Fields

```
jisl> db.inventory.find({},{item:1}).pretty()
[
  { _id: ObjectId('687e08c95a68bf389feec4a9'), item: 'canvas' },
  { _id: ObjectId('687e08d25a68bf389feec4aa'), item: 'journal' },
  { _id: ObjectId('687e08d25a68bf389feec4ab'), item: 'mat' },
  { _id: ObjectId('687e08d25a68bf389feec4ac'), item: 'mousepad' },
  { _id: ObjectId('687e0ee45a68bf389feec4ad'), item: 'notebook' },
  { _id: ObjectId('687e0ee45a68bf389feec4ae'), item: 'diary' }
]
jisl> db.inventory.find({},{qty:1}).pretty()
[
  { _id: ObjectId('687e08c95a68bf389feec4a9'), qty: 100 },
  { _id: ObjectId('687e08d25a68bf389feec4aa'), qty: 25 },
  { _id: ObjectId('687e08d25a68bf389feec4ab'), qty: 85 },
  { _id: ObjectId('687e08d25a68bf389feec4ac'), qty: 25 },
  { _id: ObjectId('687e0ee45a68bf389feec4ad'), qty: 60 },
  { _id: ObjectId('687e0ee45a68bf389feec4ae'), qty: 25 }
]
jisl> db.inventory.find({},{qty:2}).pretty()
[
  { _id: ObjectId('687e08c95a68bf389feec4a9'), qty: 100 },
  { _id: ObjectId('687e08d25a68bf389feec4aa'), qty: 25 },
  { _id: ObjectId('687e08d25a68bf389feec4ab'), qty: 85 },
  { _id: ObjectId('687e08d25a68bf389feec4ac'), qty: 25 },
  { _id: ObjectId('687e0ee45a68bf389feec4ad'), qty: 60 },
  { _id: ObjectId('687e0ee45a68bf389feec4ae'), qty: 25 }
]
```

Including Multiple Fields

```
jisl> db.inventory.find({},{item:1, qty:1}).pretty()
[
  {
    _id: ObjectId('687e08c95a68bf389feec4a9'),
    item: 'canvas',
    qty: 100
  },
  {
    _id: ObjectId('687e08d25a68bf389feec4aa'),
    item: 'journal',
    qty: 25
  },
  { _id: ObjectId('687e08d25a68bf389feec4ab'), item: 'mat', qty: 85 },
  {
    _id: ObjectId('687e08d25a68bf389feec4ac'),
    item: 'mousepad',
    qty: 25
  },
  {
    _id: ObjectId('687e0ee45a68bf389feec4ad'),
    item: 'notebook',
    qty: 60
  },
  { _id: ObjectId('687e0ee45a68bf389feec4ae'), item: 'diary', qty: 25 }
]
```

```
jisl> db.inventory.find({},{item:1, qty:1,_id:0}).pretty()
[
  { item: 'canvas', qty: 100 },
  { item: 'journal', qty: 25 },
  { item: 'mat', qty: 85 },
  { item: 'mousepad', qty: 25 },
  { item: 'notebook', qty: 60 },
  { item: 'diary', qty: 25 }
]
```

Invalid: Mixing Inclusion and Exclusion (Except _id)

```
jisl> db.inventory.find({},{item:1, qty:1,tags:0})
MongoServerError[Location31254]: Cannot do exclusion on field tags in inclus
ion projection
```

```
jisl> db.inventory.find({},{item:1, _id:0}).pretty()
[
  { item: 'canvas' },
  { item: 'journal' },
  { item: 'mat' },
  { item: 'mousepad' },
  { item: 'notebook' },
  { item: 'diary' }
]
```