Assignment 2

Input:-

show dbs

use book

show collections;

db.createCollection("library");

db.library.insert({"bid":1,"name":"C++"});

db.library.insert({"bid":2,"name":"SEPM","author":"Pressman"});

db.library.insert({"bid":3,"name":"CN","author":"Forouzan","cost":700});

db.library.find().pretty();

db.library.remove({"bid":1});

db.library.count();

db.library.find().pretty();

db.library.insert({"bid":1,"name":"C++"});

db.library.find().pretty();

db.library.find().sort({"bid":1})

db.library.insert({"bid":4,"name":"SPOS","author":"Pearson","cost":500});

db.library.find().pretty();

db.library.find().sort({"bid":1})

db.library.find({$and:[{"name":"CN"},{"cost":700}]}).pretty()

db.library.insert({"bid":5,"name":"TOC","author":"Addison-Wesley","cost":600});

db.library.insert({"bid":6,"name":"AI","author":"McGraw Hill Education","cost":800});

db.library.find().pretty();

db.library.find({$or:[{"cost":500},{"cost":800}]}).pretty()

db.library.find({"cost":{$ne:500}})

db.library.find({$nor:[{"cost":500},{"author":"Forouzan"}]})

db.library.find({"cost":{$not:{$gt:800}}})

db.library.insert({"bid":7,"name":"CC","author":"Wiley Publications","cost":400})

```
db.library.find()

db.library.update({'cost':400},{$set:{'cost':600}})

db.library.update({'cost':800},{$set:{'cost':1200}})

db.library.find().pretty();
```
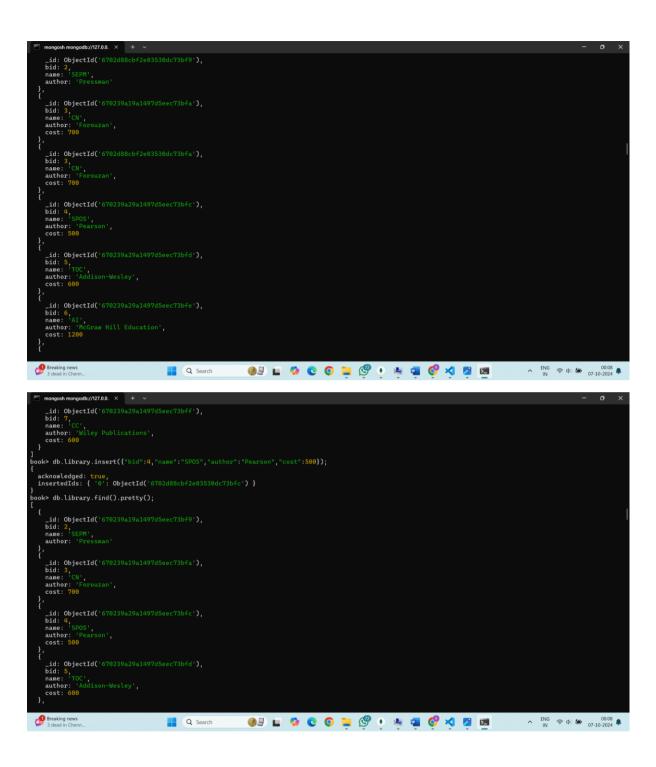
Output:-

```
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bff'),
      bid: 7,
      name: 'CC',
      author: 'Wiley Publications',
      cost: 600
    },
    { _id: ObjectId('6702d88cbf2e03530dc73bf8'), bid: 1, name: 'C++' },
    {
      _id: ObjectId('6702d88cbf2e03530dc73bf9'),
      bid: 2,
      name: 'SEPM',
      author: 'Pressman'
    },
    {
      _id: ObjectId('6702d88cbf2e03530dc73bfa'),
      bid: 3,
      name: 'CN',
      author: 'Forouzan',
      cost: 700
    }
]
book> db.library.remove({"bid":1});
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete, or bulkWrite.
{ acknowledged: true, deletedCount: 2 }
book> db.library.count();
DeprecationWarning: Collection.count() is deprecated. Use countDocuments or estimatedDocumentCount.
8
book> db.library.find().pretty();
[
    {
      _id: ObjectId('670239a19a1497d5eec73bf9'),
      bid: 2,
      name: 'SEPM',
      author: 'Pressman'
    },
    {
      _id: ObjectId('670239a19a1497d5eec73bfa'),
      bid: 3,
      name: 'CN',
```

```
    {
      _id: ObjectId('670239a19a1497d5eec73bfa'),
      bid: 3,
      name: 'CN',
      author: 'Forouzan',
      cost: 700
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bfc'),
      bid: 4,
      name: 'SPOS',
      author: 'Pearson',
      cost: 500
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bfd'),
      bid: 5,
      name: 'TOC',
      author: 'Addison-Wesley',
      cost: 600
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bfe'),
      bid: 6,
      name: 'AI',
      author: 'McGraw Hill Education',
      cost: 1200
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bff'),
      bid: 7,
      name: 'CC',
      author: 'Wiley Publications',
      cost: 600
    },
    {
      _id: ObjectId('6702d88cbf2e03530dc73bf9'),
      bid: 2,
      name: 'SEPM',
      author: 'Pressman'
    },
```

```
    },
    {
      _id: ObjectId('6702d88cbf2e03530dc73bfa'),
      bid: 3,
      name: 'CN',
      author: 'Forouzan',
      cost: 700
    }
]
book> db.library.insert({"bid":1,"name":"C++"});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702d88cbf2e03530dc73bfb') }
}
book> db.library.find().pretty();
[
    {
      _id: ObjectId('670239a19a1497d5eec73bf9'),
      bid: 2,
      name: 'SEPM',
      author: 'Pressman'
    },
    {
      _id: ObjectId('670239a19a1497d5eec73bfa'),
      bid: 3,
      name: 'CN',
      author: 'Forouzan',
      cost: 700
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bfc'),
      bid: 4,
      name: 'SPOS',
      author: 'Pearson',
      cost: 500
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bfd'),
      bid: 5,
      name: 'TOC',
      author: 'Addison-Wesley',
```

```
      cost: 600
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bfe'),
      bid: 6,
      name: 'AI',
      author: 'McGraw Hill Education',
      cost: 1200
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bff'),
      bid: 7,
      name: 'CC',
      author: 'Wiley Publications',
      cost: 600
    },
    {
      _id: ObjectId('6702d88cbf2e03530dc73bf9'),
      bid: 2,
      name: 'SEPM',
      author: 'Pressman'
    },
    {
      _id: ObjectId('6702d88cbf2e03530dc73bfa'),
      bid: 3,
      name: 'CN',
      author: 'Forouzan',
      cost: 700
    },
    { _id: ObjectId('6702d88cbf2e03530dc73bfb'), bid: 1, name: 'C++' }
]
book> db.library.find().sort({"bid":1})
[
    { _id: ObjectId('6702d88cbf2e03530dc73bfb'), bid: 1, name: 'C++' },
    {
      _id: ObjectId('670239a19a1497d5eec73bf9'),
      bid: 2,
      name: 'SEPM',
      author: 'Pressman'
    },
    {
```

```
    _id: ObjectId('6702d88cbf2e03530dc73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('670239a19a1497d5eec73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfe'),
    bid: 6,
    name: 'AI',
    author: 'McGraw Hill Education',
    cost: 1200
  },
  {
```

```
    _id: ObjectId('670239a29a1497d5eec73bff'),
    bid: 7,
    name: 'CC',
    author: 'Wiley Publications',
    cost: 600
  }
]
book> db.library.insert({"bid":4,"name":"SPOS","author":"Pearson","cost":500});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702d88cbf2e03530dc73bfc') }
}
book> db.library.find().pretty();
[
  {
    _id: ObjectId('670239a19a1497d5eec73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('670239a19a1497d5eec73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
```

```
    {
      _id: ObjectId('670239a29a1497d5eec73bfe'),
      bid: 6,
      name: 'AI',
      author: 'McGraw Hill Education',
      cost: 1200
    },
    {
      _id: ObjectId('670239a29a1497d5eec73bff'),
      bid: 7,
      name: 'CC',
      author: 'Wiley Publications',
      cost: 600
    },
    {
      _id: ObjectId('6702d88cbf2e03530dc73bf9'),
      bid: 2,
      name: 'SEPM',
      author: 'Pressman'
    },
    {
      _id: ObjectId('6702d88cbf2e03530dc73bfa'),
      bid: 3,
      name: 'CN',
      author: 'Forouzan',
      cost: 700
    },
    { _id: ObjectId('6702d88cbf2e03530dc73bfb'), bid: 1, name: 'C++' },
    {
      _id: ObjectId('6702d88cbf2e03530dc73bfc'),
      bid: 4,
      name: 'SPOS',
      author: 'Pearson',
      cost: 500
    }
]
book> db.library.find().sort({"bid":1})
[
  { _id: ObjectId('6702d88cbf2e03530dc73bfb'), bid: 1, name: 'C++' },
  {
    _id: ObjectId('670239a19a1497d5eec73bf9'),
```

```
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('670239a19a1497d5eec73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfd'),
    bid: 5,
```

```
    _id: ObjectId('670239a29a1497d5eec73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfe'),
    bid: 6,
    name: 'AI',
    author: 'McGraw Hill Education',
    cost: 1200
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bff'),
    bid: 7,
    name: 'CC',
    author: 'Wiley Publications',
    cost: 600
  }
]
book> db.library.find({$and:[{"name":"CN"},{"cost":700}]}).pretty()
[
  {
    _id: ObjectId('670239a19a1497d5eec73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  }
]
book> db.library.insert({"bid":5,"name":"TOC","author":"Addison-Wesley","cost":600});
{
  acknowledged: true,
```

```
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702d88cbf2e03530dc73bfd') }
}
book> db.library.insert({"bid":6,"name":"AI","author":"McGraw Hill Education","cost":800});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702d88cbf2e03530dc73bfe') }
}
book> db.library.find().pretty();
[
  {
    _id: ObjectId('670239a19a1497d5eec73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('670239a19a1497d5eec73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfe'),
    bid: 6,
```

```
{
  _id: ObjectId('670239a29a1497d5eec73bfe'),
  bid: 6,
  name: 'AI',
  author: 'McGraw Hill Education',
  cost: 1200
},
{
  _id: ObjectId('670239a29a1497d5eec73bff'),
  bid: 7,
  name: 'CC',
  author: 'Wiley Publications',
  cost: 600
},
{
  _id: ObjectId('6702d88cbf2e03530dc73bf9'),
  bid: 2,
  name: 'SEPM',
  author: 'Pressman'
},
{
  _id: ObjectId('6702d88cbf2e03530dc73bfa'),
  bid: 3,
  name: 'CN',
  author: 'Forouzan',
  cost: 700
},
{ _id: ObjectId('6702d88cbf2e03530dc73bfb'), bid: 1, name: 'C++' },
{
  _id: ObjectId('6702d88cbf2e03530dc73bfc'),
  bid: 4,
  name: 'SPOS',
  author: 'Pearson',
  cost: 500
},
{
  _id: ObjectId('6702d88cbf2e03530dc73bfd'),
  bid: 5,
  name: 'TOC',
  author: 'Addison-Wesley',
  cost: 600
```

```
},
{
  _id: ObjectId('6702d88cbf2e03530dc73bfe'),
  bid: 6,
  name: 'AI',
  author: 'McGraw Hill Education',
  cost: 800
}
]
book> db.library.find({$or:[{"cost":500},{"cost":800}]}).pretty()
[
  {
    _id: ObjectId('670239a29a1497d5eec73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfe'),
    bid: 6,
    name: 'AI',
    author: 'McGraw Hill Education',
    cost: 800
  }
]
book> db.library.find({"cost":{$ne:500}})
[
  {
    _id: ObjectId('670239a19a1497d5eec73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
```

```
  {
    _id: ObjectId('670239a19a1497d5eec73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfe'),
    bid: 6,
    name: 'AI',
    author: 'McGraw Hill Education',
    cost: 1200
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bff'),
    bid: 7,
    name: 'CC',
    author: 'Wiley Publications',
    cost: 600
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
```

```
  { _id: ObjectId('6702d88cbf2e03530dc73bfb'), bid: 1, name: 'C++' },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfe'),
    bid: 6,
    name: 'AI',
    author: 'McGraw Hill Education',
    cost: 800
  }
]
book> db.library.find({$nor:[{"cost":500},{"author":"Forouzan"}]})
[
  {
    _id: ObjectId('670239a19a1497d5eec73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfe'),
    bid: 6,
    name: 'AI',
    author: 'McGraw Hill Education',
    cost: 1200
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bff'),
    bid: 7,
```

```
    name: 'CC',
    author: 'Wiley Publications',
    cost: 600
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  { _id: ObjectId('6702d88cbf2e03530dc73bfb'), bid: 1, name: 'C++' },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfe'),
    bid: 6,
    name: 'AI',
    author: 'McGraw Hill Education',
    cost: 800
  }
]
book> db.library.find({"cost":{$not:{$gt:800}}})
[
  {
    _id: ObjectId('670239a19a1497d5eec73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('670239a19a1497d5eec73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
```

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```
    _id: ObjectId('670239a29a1497d5eec73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bff'),
    bid: 7,
    name: 'CC',
    author: 'Wiley Publications',
    cost: 600
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  { _id: ObjectId('6702d88cbf2e03530dc73bfb'), bid: 1, name: 'C++' },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
  },
```

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```
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfe'),
    bid: 6,
    name: 'AI',
    author: 'McGraw Hill Education',
    cost: 800
  }
]
book> db.library.insert({"bid":7,"name":"CC","author":"Wiley Publications","cost":400})
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702d88dbf2e03530dc73bff') }
}
book> db.library.find()
[
  {
    _id: ObjectId('670239a19a1497d5eec73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('670239a19a1497d5eec73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
    cost: 500
```

```
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfd'),
    bid: 5,
    name: 'TOC',
    author: 'Addison-Wesley',
    cost: 600
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bfe'),
    bid: 6,
    name: 'AI',
    author: 'McGraw Hill Education',
    cost: 1200
  },
  {
    _id: ObjectId('670239a29a1497d5eec73bff'),
    bid: 7,
    name: 'CC',
    author: 'Wiley Publications',
    cost: 600
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bf9'),
    bid: 2,
    name: 'SEPM',
    author: 'Pressman'
  },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfa'),
    bid: 3,
    name: 'CN',
    author: 'Forouzan',
    cost: 700
  },
  { _id: ObjectId('6702d88cbf2e03530dc73bfb'), bid: 1, name: 'C++' },
  {
    _id: ObjectId('6702d88cbf2e03530dc73bfc'),
    bid: 4,
    name: 'SPOS',
    author: 'Pearson',
```

```
    },
    {
        _id: ObjectId('6702d88cbf2e03530dc73bfd'),
        bid: 5,
        name: 'TOC',
        author: 'Addison-Wesley',
        cost: 600
    },
    {
        _id: ObjectId('6702d88cbf2e03530dc73bfe'),
        bid: 6,
        name: 'AI',
        author: 'McGraw Hill Education',
        cost: 800
    },
    {
        _id: ObjectId('6702d88dbf2e03530dc73bff'),
        bid: 7,
        name: 'CC',
        author: 'Wiley Publications',
        cost: 400
    }
]
book> db.library.update({'cost':400},{$set:{'cost':600}})
DeprecationWarning: Collection.update() is deprecated. Use updateOne, updateMany, or bulkWrite.
{
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
}
book> db.library.update({'cost':800},{$set:{'cost':1200}})
{
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
}
book> db.library.find().pretty();
```

Assignment 3

Input:-

show dbs

use customer

db.cust_table.insert({Item_id:1,Cust_Name:"Ram",Product:"Milk",Amount:40});

db.cust_table.insert({Item_id:2,Cust_Name:"Ram",Product:"Parle_G",Amount:50});

db.cust_table.insert({Item_id:3,Cust_Name:"Mohan",Product:"Lays Chips",Amount:40});

db.cust_table.insert({Item_id:4,Cust_Name:"Shivam",Product:"Mentos",Amount:10});

db.cust_table.insert({Item_id:5,Cust_Name:"Mohan",Product:"Maggie",Amount:60});

db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$sum:"$Amount"}}});

db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$avg:"$Amount"}}});

db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$min:"$Amount"}}});

db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$max:"$Amount"}}});

db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$first:"$Amount"}}});

db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$last:"$Amount"}}});

db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$push:"$Amount"}}});

db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$sum:1}}});

db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$addToSet:"$Amount"}}});

db.cust_table.createIndex({'Item_id':1})

db.cust_table.createIndex({'Item_id':2})

db.cust_table.createIndex({'Item_id':4})

db.cust_table.getIndexes()

db.cust_table.dropIndex({'Item_id':4})

db.cust_table.dropIndex({'Item_id':1})

db.cust_table.getIndexes()

db.cust_table.getIndexes()

Output:-


```
book> use customer
switched to db customer
customer> db.cust_table.insert({Item_id:1,Cust_Name:"Ram",Product:"Milk",Amount:40});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702da9fbf2e03530dc73c00') }
}
customer> db.cust_table.insert({Item_id:2,Cust_Name:"Ram",Product:"Parle_G",Amount:50});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702da9fbf2e03530dc73c01') }
}
customer> db.cust_table.insert({Item_id:3,Cust_Name:"Mohan",Product:"Lays Chips",Amount:40});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702da9fbf2e03530dc73c02') }
}
customer> db.cust_table.insert({Item_id:4,Cust_Name:"Shivam",Product:"Mentos",Amount:10});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702da9fbf2e03530dc73c03') }
}
customer> db.cust_table.insert({Item_id:5,Cust_Name:"Mohan",Product:"Maggie",Amount:60});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('6702da9fbf2e03530dc73c04') }
}
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$sum:"$Amount"}}});
[
  { _id: 'Mohan', total: 400 },
  { _id: 'Ram', total: 360 },
  { _id: 'Shivam', total: 40 }
]
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$avg:"$Amount"}}});

[
  { _id: 'Mohan', total: 50 },
  { _id: 'Ram', total: 45 },
  { _id: 'Shivam', total: 10 }
]
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$min:"$Amount"}}});
```



```
]
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$min:"$Amount"}}});
[
  { _id: 'Mohan', total: 40 },
  { _id: 'Ram', total: 40 },
  { _id: 'Shivam', total: 10 }
]
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$max:"$Amount"}}});
[
  { _id: 'Mohan', total: 60 },
  { _id: 'Ram', total: 50 },
  { _id: 'Shivam', total: 10 }
]
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$first:"$Amount"}}});
[
  { _id: 'Mohan', total: 40 },
  { _id: 'Ram', total: 40 },
  { _id: 'Shivam', total: 10 }
]
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$last:"$Amount"}}});
[
  { _id: 'Mohan', total: 60 },
  { _id: 'Ram', total: 50 },
  { _id: 'Shivam', total: 10 }
]
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$push:"$Amount"}}});
[
  {
    _id: 'Mohan',
    total: [
      40, 60, 40, 60,
      40, 60, 40, 60
    ]
  },
  {
    _id: 'Ram',
    total: [
      40, 50, 40, 50,
      40, 50, 40, 50
    ]
  },
```

```
        40, 50, 40, 50,
        40, 50, 40, 50
    ]
},
{ _id: 'Shivam', total: [ 10, 10, 10, 10 ] }
]
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$sum:1}}});
[
  { _id: 'Mohan', total: 8 },
  { _id: 'Ram', total: 8 },
  { _id: 'Shivam', total: 4 }
]
customer> db.cust_table.aggregate({$group:{_id:"$Cust_Name","total":{$addToSet:"$Amount"}}});
[
  { _id: 'Mohan', total: [ 40, 60 ] },
  { _id: 'Ram', total: [ 40, 50 ] },
  { _id: 'Shivam', total: [ 10 ] }
]
customer> db.cust_table.createIndex({'Item_id':1})
Item_id_1
customer> db.cust_table.createIndex({'Item_id':2})
Item_id_2
customer> db.cust_table.createIndex({'Item_id':4})
Item_id_4
customer> db.cust_table.getIndexes()
[
  { v: 2, key: { _id: 1 }, name: '_id_' },
  { v: 2, key: { Item_id: 2 }, name: 'Item_id_2' },
  { v: 2, key: { Item_id: 1 }, name: 'Item_id_1' },
  { v: 2, key: { Item_id: 4 }, name: 'Item_id_4' }
]
customer> db.cust_table.dropIndex({'Item_id':4})
{ nIndexesWas: 4, ok: 1 }
customer> db.cust_table.dropIndex({'Item_id':1})
{ nIndexesWas: 3, ok: 1 }
customer> db.cust_table.getIndexes()
[
  { v: 2, key: { _id: 1 }, name: '_id_' },
  { v: 2, key: { Item_id: 2 }, name: 'Item_id_2' }
]
customer> db.cust_table.getIndexes()
```

Assignment 4

Input:-

show dbs

use bill

db.pay.insert({Cust_ID:"A123",Product:"Milk",Amount:40,Status:"P"});

db.pay.insert({Cust_ID:"A123",Product:"Parle_G",Amount:50,Status:"NP"});

db.pay.insert({Cust_ID:"A123",Product:"Lays Chips",Amount:40,Status:"P"});

db.pay.insert({Cust_ID:"B123",Product:"Mentos",Amount:10,Status:"P"});

db.pay.insert({Cust_ID:"B123",Product:"Maggie",Amount:60,Status:"NP"});

db.pay.find()

db.pay.mapReduce(function(){emit(this.Cust_ID,this.Amount);},function(key,values){return Array.sum(values)},{query:{"Status":"NP"},out:"Bill_Amount"})

var mapFunc1=function(){emit(this.Cust_ID,this.Amount);};

var reduceFunc1=function(keyCustID,valuePrices){return Array.sum(valuePrices);};

db.pay.mapReduce(mapFunc1,reduceFunc1,{out:"Map"})

db.Bill_Amount.find()

db.Map.find()

Output:-

```
{
  _id: ObjectId('6702db8abf2e03530dc73c05'),
  Cust_ID: 'A123',
  Product: 'Milk',
  Amount: 40,
  Status: 'P'
},
{
  _id: ObjectId('6702db8abf2e03530dc73c06'),
  Cust_ID: 'A123',
  Product: 'Parle_G',
  Amount: 50,
  Status: 'NP'
},
{
  _id: ObjectId('6702db8abf2e03530dc73c07'),
  Cust_ID: 'A123',
  Product: 'Lays Chips',
  Amount: 40,
  Status: 'P'
},
{
  _id: ObjectId('6702db8abf2e03530dc73c08'),
  Cust_ID: 'B123',
  Product: 'Mentos',
  Amount: 10,
  Status: 'P'
},
{
  _id: ObjectId('6702db8abf2e03530dc73c09'),
  Cust_ID: 'B123',
  Product: 'Maggie',
  Amount: 60,
  Status: 'NP'
},
{
  _id: ObjectId('6702dba1bf2e03530dc73c0a'),
  Cust_ID: 'A123',
  Product: 'Milk',
  Amount: 40,
  Status: 'P'
},
```

```
},
{
  _id: ObjectId('6702dba1bf2e03530dc73c0b'),
  Cust_ID: 'A123',
  Product: 'Parle_G',
  Amount: 50,
  Status: 'NP'
},
{
  _id: ObjectId('6702dba1bf2e03530dc73c0c'),
  Cust_ID: 'A123',
  Product: 'Lays Chips',
  Amount: 40,
  Status: 'P'
},
{
  _id: ObjectId('6702dba1bf2e03530dc73c0d'),
  Cust_ID: 'B123',
  Product: 'Mentos',
  Amount: 10,
  Status: 'P'
},
{
  _id: ObjectId('6702dba1bf2e03530dc73c0e'),
  Cust_ID: 'B123',
  Product: 'Maggie',
  Amount: 60,
  Status: 'NP'
},
{
  _id: ObjectId('6702dbe460598bd887c73bf8'),
  Cust_ID: 'A123',
  Product: 'Milk',
  Amount: 40,
  Status: 'P'
},
{
  _id: ObjectId('6702dbe460598bd887c73bf9'),
  Cust_ID: 'A123',
  Product: 'Parle_G',
  Amount: 50,
```

```
      Status: 'NP'
  },
  {
    _id: ObjectId('6702dbe460598bd887c73bfa'),
    Cust_ID: 'A123',
    Product: 'Lays Chips',
    Amount: 40,
    Status: 'P'
  },
  {
    _id: ObjectId('6702dbe460598bd887c73bfb'),
    Cust_ID: 'B123',
    Product: 'Mentos',
    Amount: 10,
    Status: 'P'
  },
  {
    _id: ObjectId('6702dbe460598bd887c73bfc'),
    Cust_ID: 'B123',
    Product: 'Maggie',
    Amount: 60,
    Status: 'NP'
  }
]
bill> db.pay.mapReduce(function(){emit(this.Cust_ID,this.Amount);},function(key,values){return Array.sum(values)},{query:{"Status":"NP"},out:"Bill_Amount"})
DeprecationWarning: Collection.mapReduce() is deprecated. Use an aggregation instead.
See https://docs.mongodb.com/manual/core/map-reduce for details.
{ result: 'Bill_Amount', ok: 1 }
bill> var mapFunc1=function(){emit(this.Cust_ID,this.Amount);};

bill> var reduceFunc1=function(keyCustID,valuePrices){return Array.sum(valuePrices);};

bill> db.pay.mapReduce(mapFunc1,reduceFunc1,{out:"Map"})
{ result: 'Map', ok: 1 }
bill> db.Bill_Amount.find()
[ { _id: 'A123', value: 200 }, { _id: 'B123', value: 240 } ]
bill> db.Map.find()
[ { _id: 'A123', value: 520 }, { _id: 'B123', value: 280 } ]
bill> |
```