

Assignment No. 10

```
use db
```

```
switched to db db
```

```
db.createCollection("dbms")
```

```
{ ok: 1 }
```

```
db.dbms.insertOne({roll:01,name:"Sumit",subject:"TOC",marks:78})
```

```
{
```

```
  acknowledged: true,
```

```
  insertedId: ObjectId('67165b503f54915ff167905d')
```

```
}
```

```
db.dbms.insertOne({roll:02,name:"Manish",subject:"CNS",marks:80})
```

```
{
```

```
  acknowledged: true,
```

```
  insertedId: ObjectId('67165b773f54915ff167905e')
```

```
}
```

```
db.dbms.insertMany([{roll:03,name:"Sujal",subject:"CG",marks:88},{roll:04,name:"Harshad",subject:"DB  
MS",marks:79}])
```

```
{
```

```
  acknowledged: true,
```

```
  insertedIds: {
```

```
    '0': ObjectId('67165c723f54915ff167905f'),
```

```
    '1': ObjectId('67165c723f54915ff1679060')
```

```
  }
```

```
}
```

```
db.dbms.find().pretty()
```

```
{
```

```
  _id: ObjectId('67165b503f54915ff167905d'),
```

```
  roll: 1,
```

```
name: 'Sumit',
subject: 'TOC',
marks: 78
}
{
  _id: ObjectId('67165b773f54915ff167905e'),
  roll: 2,
  name: 'Manish',
  subject: 'CNS',
  marks: 80
}
{
  _id: ObjectId('67165c723f54915ff167905f'),
  roll: 3,
  name: 'Sujal',
  subject: 'CG',
  marks: 88
}
{
  _id: ObjectId('67165c723f54915ff1679060'),
  roll: 4,
  name: 'Harshad',
  subject: 'DBMS',
  marks: 79
}
db.dbms.aggregate([{$group: {_id: "$subject", marks: {$min: "$marks"}}}])
{
  _id: 'TOC',
  marks: 78
}
```

```
}  
  
{  
  _id: 'CG',  
  marks: 88  
}  
  
{  
  _id: 'CNS',  
  marks: 80  
}  
  
{  
  _id: 'DBMS',  
  marks: 79  
}  
  
db.dbms.aggregate([{$group:{_id:"$subject",marks:{$max:"$marks"}}}])  
  
{  
  _id: 'TOC',  
  marks: 78  
}  
  
{  
  _id: 'CG',  
  marks: 88  
}  
  
{  
  _id: 'DBMS',  
  marks: 79  
}  
  
{  
  _id: 'CNS',  
  marks: 80
```

```
}  
db.dbms.aggregate([{$group:{_id:"$subject",marks:{$sum:"$marks"}}}])
```

```
{  
  _id: 'CNS',  
  marks: 80  
}
```

```
{  
  _id: 'TOC',  
  marks: 78  
}
```

```
{  
  _id: 'DBMS',  
  marks: 79  
}
```

```
{  
  _id: 'CG',  
  marks: 88  
}
```

```
db.dbms.aggregate([{$group:{_id:"$subject",marks:{$avg:"$marks"}}}])
```

```
{  
  _id: 'CNS',  
  marks: 80  
}
```

```
{  
  _id: 'CG',  
  marks: 88  
}
```

```
{  
  _id: 'TOC',
```

```

    marks: 78
  }
  {
    _id: 'DBMS',
    marks: 79
  }
db.dbms.aggregate([{$group: {_id: "$subject", marks: {$last: "$marks"}}}])
{
  _id: 'TOC',
  marks: 78
}
{
  _id: 'CNS',
  marks: 80
}
{
  _id: 'CG',
  marks: 88
}
{
  _id: 'DBMS',
  marks: 79
}
db.dbms.aggregate([{$group: {_id: "$subject", marks: {$first: "$marks"}}}])
{
  _id: 'TOC',
  marks: 78
}
{

```

```

    _id: 'CG',
    marks: 88
  }
  {
    _id: 'CNS',
    marks: 80
  }
  {
    _id: 'DBMS',
    marks: 79
  }
db.dbms.aggregate([{$group:{_id:"$subject",marks:{$first:"$marks"}}}])
{
  _id: 'TOC',
  marks: 78
}
{
  _id: 'CG',
  marks: 88
}
{
  _id: 'DBMS',
  marks: 79
}
{
  _id: 'CNS',
  marks: 80
}
db.dbms.ensureIndex({roll:1})

```

```
[ 'roll_1' ]
```

```
db.dbms.ensureIndex({roll:3})
```

```
[ 'roll_3' ]
```

```
db.dbms.getIndexes()
```

```
[
```

```
  { v: 2, key: { _id: 1 }, name: '_id_' },
```

```
  { v: 2, key: { roll: 1 }, name: 'roll_1' },
```

```
  { v: 2, key: { roll: 3 }, name: 'roll_3' }
```

```
]
```