Assignment No.: 9

**test> use stud-data;**

switched to db stud-data

**stud-data> db.data.insertMany([**

**... {RollNo:1,Name:"ABC",Marks:90,Class:"TE",Div: 'A'},**

**... {RollNo:2,Name:"BCD",Marks:85,Class:"FE",Div: 'A'},**

**... {RollNo:3,Name:"CDE",Marks:88,Class:"TE",Div: 'B'},**

**... {RollNo:4,Name:"DEF",Marks:89,Class:"FE",Div: 'B'},**

**... {RollNo:5,Name:"EFG",Marks:90,Class:"TE",Div: 'A'},**

**... {RollNo:6,Name:"FGH",Marks:81,Class:"SE",Div: 'A'},**

**... {RollNo:7,Name:"GHI",Marks:91,Class:"SE",Div: 'C'},**

**... {RollNo:8,Name:"HIJ",Marks:92,Class:"SE",Div: 'A'},**

**... {RollNo:9,Name:"IJK",Marks:87,Class:"FE",Div: 'A'},**

**... {RollNo:10,Name:"JKL",Marks:85,Class:"TE",Div: 'A'},])**

{

acknowledged: true,

insertedIds: {

'0': ObjectId("6361107d0f9ee4c7628aa56d"),

'1': ObjectId("6361107d0f9ee4c7628aa56e"),

'2': ObjectId("6361107d0f9ee4c7628aa56f"),

'3': ObjectId("6361107d0f9ee4c7628aa570"),

'4': ObjectId("6361107d0f9ee4c7628aa571"),

'5': ObjectId("6361107d0f9ee4c7628aa572"),

'6': ObjectId("6361107d0f9ee4c7628aa573"),

'7': ObjectId("6361107d0f9ee4c7628aa574"),

'8': ObjectId("6361107d0f9ee4c7628aa575"),

'9': ObjectId("6361107d0f9ee4c7628aa576")

}

}

**stud-data> db.data.find()**

[

{

\_id: ObjectId("6361107d0f9ee4c7628aa56d"),

RollNo: 1,

Name: 'ABC',

Marks: 90,

Class: 'TE',

Div: 'A'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa56e"),

RollNo: 2,

Name: 'BCD',

Marks: 85,

Class: 'FE',

Div: 'A'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa56f"),

RollNo: 3,

Name: 'CDE',

Marks: 88,

Class: 'TE',

Div: 'B'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa570"),

RollNo: 4,

Name: 'DEF',

Marks: 89,

Class: 'FE',

Div: 'B'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa571"),

RollNo: 5,

Name: 'EFG',

Marks: 90,

Class: 'TE',

Div: 'A'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa572"),

RollNo: 6,

Name: 'FGH',

Marks: 81,

Class: 'SE',

Div: 'A'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa573"),

RollNo: 7,

Name: 'GHI',

Marks: 91,

Class: 'SE',

Div: 'C'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa574"),

RollNo: 8,

Name: 'HIJ',

Marks: 92,

Class: 'SE',

Div: 'A'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa575"),

RollNo: 9,

Name: 'IJK',

Marks: 87,

Class: 'FE',

Div: 'A'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa576"),

RollNo: 10,

Name: 'JKL',

Marks: 85,

Class: 'TE',

Div: 'A'

}

]

**stud-data> db.data.aggregate([{$group:{\_id:"$Class"}}]);**

[ { \_id: 'FE' }, { \_id: 'SE' }, { \_id: 'TE' } ]

**stud-data> db.data.aggregate([{$group:{\_id:"$Class",Total:{$sum:"$Marks"}}}]);**

[

{ \_id: 'FE', Total: 261 },

{ \_id: 'SE', Total: 264 },

{ \_id: 'TE', Total: 353 }

]

**stud-data> db.data.aggregate([{$group:{\_id:"$Class",Minimum\_marks:{$min:"$Marks"}}}]);**

[

{ \_id: 'FE', Minimum\_marks: 85 },

{ \_id: 'TE', Minimum\_marks: 85 },

{ \_id: 'SE', Minimum\_marks: 81 }

]

**stud-data> db.data.aggregate([{$group:{\_id:"$Class",Maximum\_marks:{$max:"$Marks"}}}]);**

[

{ \_id: 'FE', Maximum\_marks: 89 },

{ \_id: 'TE', Maximum\_marks: 90 },

{ \_id: 'SE', Maximum\_marks: 92 }

]

**stud-data> db.data.aggregate([{$group:{\_id:"$Class",Avg\_marks:{$avg:"$Marks"}}}]);**

[

{ \_id: 'FE', Avg\_marks: 87 },

{ \_id: 'SE', Avg\_marks: 88 },

{ \_id: 'TE', Avg\_marks: 88.25 }

]

**stud-data> db.data.aggregate([{$project:{RollNo:1,Name:1,Marks:1,\_id:0}}]);**

[

{ RollNo: 1, Name: 'ABC', Marks: 90 },

{ RollNo: 2, Name: 'BCD', Marks: 85 },

{ RollNo: 3, Name: 'CDE', Marks: 88 },

{ RollNo: 4, Name: 'DEF', Marks: 89 },

{ RollNo: 5, Name: 'EFG', Marks: 90 },

{ RollNo: 6, Name: 'FGH', Marks: 81 },

{ RollNo: 7, Name: 'GHI', Marks: 91 },

{ RollNo: 8, Name: 'HIJ', Marks: 92 },

{ RollNo: 9, Name: 'IJK', Marks: 87 },

{ RollNo: 10, Name: 'JKL', Marks: 85 }

]

**stud-data> db.data.aggregate([{$match:{Class:"TE"}}]);**

[

{

\_id: ObjectId("6361107d0f9ee4c7628aa56d"),

RollNo: 1,

Name: 'ABC',

Marks: 90,

Class: 'TE',

Div: 'A'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa56f"),

RollNo: 3,

Name: 'CDE',

Marks: 88,

Class: 'TE',

Div: 'B'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa571"),

RollNo: 5,

Name: 'EFG',

Marks: 90,

Class: 'TE',

Div: 'A'

},

{

\_id: ObjectId("6361107d0f9ee4c7628aa576"),

RollNo: 10,

Name: 'JKL',

Marks: 85,

Class: 'TE',

Div: 'A'

}

]

**stud-data> db.data.aggregate([{$match:{Class:"TE"}},{$project:{RollNo:1,Marks:1,\_id:0}}])**

[

{ RollNo: 1, Marks: 90 },

{ RollNo: 3, Marks: 88 },

{ RollNo: 5, Marks: 90 },

{ RollNo: 10, Marks: 85 }

]

**stud-data> db.data.createIndex({"RollNo":1})**

RollNo\_1

**stud-data> db.data.getIndexes();**

[

{ v: 2, key: { \_id: 1 }, name: '\_id\_' },

{ v: 2, key: { RollNo: 1 }, name: 'RollNo\_1' }

]

**stud-data> db.data.dropIndex({"RollNo":1})**

{ nIndexesWas: 2, ok: 1 }