Name:Kavya K

Usn:1NT18IS078

Subject:Big data lab

**use marksdb;**

Result:switched to db marksdb

**db.createCollection(“mark”);**

**db.mark.find().pretty();**

{

"\_id" : ObjectId("60f06409f326e885094c788f"),

"name" : "kavya",

"usn" : "1NT18IS078",

"subject1" : 70,

"subject2" : 40,

"subject3" : 80,

"result" : "P"

}

{

"\_id" : ObjectId("60f06452f326e885094c7890"),

"name" : "kshithija",

"usn" : "1NT18IS068",

"subject1" : 70,

"subject2" : 20,

"subject3" : 70,

"result" : "F"

}

{

"\_id" : ObjectId("60f0647bf326e885094c7891"),

"name" : "anusha",

"usn" : "1NT18IS066",

"subject1" : 70,

"subject2" : 10,

"subject3" : 30,

"result" : "F"

}

{

"\_id" : ObjectId("60f064a1f326e885094c7892"),

"name" : "vidusha",

"usn" : "1NT18IS067",

"subject1" : 70,

"subject2" : 90,

"subject3" : 50,

"result" : "P"

}

{

"\_id" : ObjectId("60f0652ff326e885094c7893"),

"name" : "vidya",

"usn" : "1NT18IS055",

"subject1" : 80,

"subject2" : 40,

"subject3" : 50,

"result" : "P"

}

{

"\_id" : ObjectId("60f06979dc1f69b9b5d68a2e"),

"name" : "aishwarya",

"usn" : "1NT18IS044",

"subject1" : 28,

"subject2" : 33,

"subject3" : 50,

"result" : "F"

}

{

"\_id" : ObjectId("60f06999dc1f69b9b5d68a2f"),

"name" : "prajna",

"usn" : "1NT18IS090",

"subject1" : 55,

"subject2" : 66,

"subject3" : 50,

"result" : "P"

}

{

"\_id" : ObjectId("60f069b7dc1f69b9b5d68a30"),

"name" : "pravya",

"usn" : "1NT18IS091",

"subject1" : 99,

"subject2" : 66,

"subject3" : 78,

"result" : "F"

}

{

"\_id" : ObjectId("60f069dbdc1f69b9b5d68a31"),

"name" : "piyush",

"usn" : "1NT18IS092",

"subject1" : 45,

"subject2" : 33,

"subject3" : 22,

"result" : "F"

}

{

"\_id" : ObjectId("60f069f6dc1f69b9b5d68a32"),

"name" : "ahana",

"usn" : "1NT18IS093",

"subject1" : 88,

"subject2" : 77,

"subject3" : 66,

"result" : "P"

}

{

"\_id" : ObjectId("60f06a17dc1f69b9b5d68a33"),

"name" : "roshan",

"usn" : "1NT18IS094",

"subject1" : 37,

"subject2" : 33,

"subject3" : 48,

"result" : "F"

}

{

"\_id" : ObjectId("60f06a54dc1f69b9b5d68a34"),

"name" : "radha",

"usn" : "1NT18IS095",

"subject1" : 56,

"subject2" : 49,

"subject3" : 48,

"result" : "P"

}

{

"\_id" : ObjectId("60f06a6adc1f69b9b5d68a35"),

"name" : "vidha",

"usn" : "1NT18IS096",

"subject1" : 56,

"subject2" : 67,

"subject3" : 48,

"result" : "P"

}

{

"\_id" : ObjectId("60f06ab6dc1f69b9b5d68a36"),

"name" : "divya",

"usn" : "1NT18IS097",

"subject1" : 66,

"subject2" : 67,

"subject3" : 46,

"result" : "P"

}

{

"\_id" : ObjectId("60f06ad7dc1f69b9b5d68a37"),

"name" : "darshan",

"usn" : "1NT18IS098",

"subject1" : 30,

"subject2" : 42,

"subject3" : 20,

"result" : "F"

}

{

"\_id" : ObjectId("60f06af3dc1f69b9b5d68a38"),

"name" : "pradeep",

"usn" : "1NT18IS099",

"subject1" : 60,

"subject2" : 42,

"subject3" : 93,

"result" : "P"

}

{

"\_id" : ObjectId("60f06b0edc1f69b9b5d68a39"),

"name" : "kala",

"usn" : "1NT18IS101",

"subject1" : 70,

"subject2" : 62,

"subject3" : 93,

"result" : "P"

}

1)Demonstrate the usage of $match,$group,$aggregate pipelines.

**> db.mark.aggregate([{ $match : { name:"kavya" }}]).pretty()**

{

"\_id" : ObjectId("60f06409f326e885094c788f"),

"name" : "kavya",

"usn" : "1NT18IS078",

"subject1" : 70,

"subject2" : 40,

"subject3" : 80,

"result" : "P"

}

**db.mark.aggregate([{ $group : {\_id:"$name" }}]).pretty()**

{ "\_id" : "prajna" }

{ "\_id" : "kshithija" }

{ "\_id" : "ahana" }

{ "\_id" : "kavya" }

{ "\_id" : "vidya" }

{ "\_id" : "piyush" }

{ "\_id" : "anusha" }

{ "\_id" : "pradeep" }

{ "\_id" : "darshan" }

{ "\_id" : "pravya" }

{ "\_id" : "vidha" }

{ "\_id" : "aishwarya" }

{ "\_id" : "vidusha" }

{ "\_id" : "kala" }

{ "\_id" : "roshan" }

{ "\_id" : "radha" }

{ "\_id" : "divya" }

**db.mark.aggregate([{ $match : {subject1:{$gt:70}}},{$group:{\_id:"$name"}}]).pretty()**

{ "\_id" : "vidya" }

{ "\_id" : "pravya" }

{ "\_id" : "ahana" }

2) Demonstrate the Map-reduce aggregate function on this dataset.

**var mapFunc = function(){emit(this.name,this.subject2);};**

**> var reducerFunc = function(name,subject2){return Array.sum(subject2);};**

**> db.mark.mapReduce(mapFunc,reducerFunc,{out:"output"});**

{ "result" : "output", "ok" : 1 }

> db.output.find().pretty()

{ "\_id" : "roshan", "value" : 33 }

{ "\_id" : "aishwarya", "value" : 33 }

{ "\_id" : "vidusha", "value" : 90 }

{ "\_id" : "divya", "value" : 67 }

{ "\_id" : "kala", "value" : 62 }

{ "\_id" : "radha", "value" : 49 }

{ "\_id" : "pravya", "value" : 66 }

{ "\_id" : "vidha", "value" : 67 }

{ "\_id" : "kavya", "value" : 40 }

{ "\_id" : "vidya", "value" : 40 }

{ "\_id" : "piyush", "value" : 33 }

{ "\_id" : "pradeep", "value" : 42 }

{ "\_id" : "darshan", "value" : 42 }

{ "\_id" : "anusha", "value" : 10 }

{ "\_id" : "kshithija", "value" : 20 }

{ "\_id" : "ahana", "value" : 77 }

{ "\_id" : "prajna", "value" : 66 }

3) Count the number of students who have passed in at least two subjects.

**db.mark.aggregate([{ $match: { $and: [{subject1:{$gt:40}},{subject2:{$gt:40}}]}},{$count:"passed\_twosubject"}]);**

{ "passed\_twosubject" : 9 }

4)Demonstrate the alter and drop commands on this dataset.

**> db.mark.update({name:"kavya"},{$set:{usn:"1NT18IS077"}})**

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.mark.find({name:"kavya"})

{ "\_id" : ObjectId("60f06409f326e885094c788f"), "name" : "kavya", "usn" : "1NT18IS077", "subject1" : 70, "subject2" : 40, "subject3" : 80, "result" : "P" }

> show collections

mark

output

subject

**> db.subject.drop()**

true

> show collections

mark

output