Group B : Lab Assignment no. 11

Title :Implement aggregation and indexing with suitable example using MongoDB

//USE DATABASE

* **use comp; switched to db comp**

//CREATE COLLECTION WEBSITE

* **db.createCollection('website');**

{ "ok" : 1 }

//INSERT VALUES IN WEBSITE

>

db.website.insert({'roll':'1','name':'harsh','amount':1000,'ur l':'www.yahoo.com'});

WriteResult({ "nInserted" : 1 })

>db.website.insert({'roll':'2','name':'jitesh','amount':2000,'url':'[www.yahoo.com](http://www.yahoo.com/) '});

WriteResult({ "nInserted" : 1 })

>db.website.insert({'roll':'3','name':'rina','amount':3000,'url':'www.google.com'

});

WriteResult({ "nInserted" : 1 })

>db.website.insert({'roll':'4','name':'ash','amount':4000,'url':'www.gmail.com'})

;

WriteResult({ "nInserted" : 1 })

>db.website.insert({'roll':'5','name':'ash','amount':1000,'url':'[www.pvg.com](http://www.pvg.com/)'}); WriteResult({ "nInserted" : 1 })

//SUM AGGREGATE

* **db.website.aggregate({$group:{\_id:"$name","total":{$sum:"$amount"}}});**

{ "\_id" : "ash", "total" : 5000 }

{ "\_id" : "rina", "total" : 3000 }

{ "\_id" : "jitesh", "total" : 2000 }

{ "\_id" : "harsh", "total" : 2000 }

//AVG AGGREGATE

* **db.website.aggregate({$group:{\_id:"$name","total":**

{$avg:"$amount"}}});

{ "\_id" : "ash", "total" : 2500 }

{ "\_id" : "rina", "total" : 3000 }

{ "\_id" : "jitesh", "total" : 2000 }

{ "\_id" : "harsh", "total" : 1000 }

//MIN AGGREGATION

* **db.website.aggregate({$group:{\_id:"$name","total":{$min:"$amount"}}});**

{ "\_id" : "ash", "total" : 1000 }

{ "\_id" : "rina", "total" : 3000 }

{ "\_id" : "jitesh", "total" : 2000 }

{ "\_id" : "harsh", "total" : 1000 }

//MAX AGGREGATION

* **db.website.aggregate({$group:{\_id:"$name","total":{$max:"$amount"}}});**

{ "\_id" : "ash", "total" : 4000 }

{ "\_id" : "rina", "total" : 3000 }

{ "\_id" : "jitesh", "total" : 2000 }

{ "\_id" : "harsh", "total" : 1000 }

//FIRST AGGREGATION

* **db.website.aggregate({$group:{\_id:"$name","total":{$first:"$amount"}}});**

{ "\_id" : "ash", "total" : 4000 }

{ "\_id" : "rina", "total" : 3000 }

{ "\_id" : "jitesh", "total" : 2000 }

{ "\_id" : "harsh", "total" : 1000 }

//LAST AGGREGATION

* **db.website.aggregate({$group:{\_id:"$name","total":{$last:"$amount"}}});**

{ "\_id" : "ash", "total" : 1000 }

{ "\_id" : "rina", "total" : 3000 }

{ "\_id" : "jitesh", "total" : 2000 }

{ "\_id" : "harsh", "total" : 1000 }

//PUSH AGGREGATION

* **db.website.aggregate({$group:{\_id:"$name","total":**

{$push:"$amount"}}});

{ "\_id" : "ash", "total" : [ 4000, 1000 ] }

{ "\_id" : "rina", "total" : [ 3000 ] }

{ "\_id" : "jitesh", "total" : [ 2000 ] }

{ "\_id" : "harsh", "total" : [ 1000, 1000 ] }

//COUNT AGGREGATION

* **db.website.aggregate({$group:{\_id:"$name","total": {$sum:1}}});**

{ "\_id" : "ash", "total" : 2 }

{ "\_id" : "rina", "total" : 1 }

{ "\_id" : "jitesh", "total" : 1 }

{ "\_id" : "harsh", "total" : 2 }

//ADDTOSET AGGREGATE

* **db.website.aggregate({$group:**

{\_id:"$name","total"{$addToSet:"$amount"}}});

{ "\_id" : "ash", "total" : [ 1000, 4000 ] }

{ "\_id" : "rina", "total" : [ 3000 ] }

{ "\_id" : "jitesh", "total" : [ 2000 ] }

{ "\_id" : "harsh", "total" : [ 1000 ] }

//INDEXING

* **db.createCollection('website1');**

{ "ok" : 1 }

* **db.website1.insert({'r':1,'name':'harsh'}); WriteResult({ "nInserted" : 1 })**
* **db.website1.find().pretty()**

{ "\_id" : ObjectId("5ba3509a444926329738012d"), "roll" : 1, "name" : "harsh" }

{ "\_id" : ObjectId("5ba35293444926329738012e"), "roll" : 1, "name" : "harsh" }

* **db.website1.createIndex({'name':1})**

{ "numIndexesBefore" : 2, "note" : "all indexes already exist", "ok" : 1 }//CREATE INDEXING

* **db.website1.createIndex({'name':-1})**

{

"createdCollectionAutomatically" : false, "numIndexesBefore" : 2,

"numIndexesAfter" : 3,

"ok" : 1

}

* **db.website1.getIndexses()**

2018-09-20T13:28:09.628+0530 TypeError: Property 'getIndexses' of object om.website is not a

function

* **db.website1.getIndexes() [**

{"v" : 1,

},

{

"v" : 1,

"key" : {

"name" : 1

},

"name" : "name\_1", "ns" : "harsh.website1"

},

{

"v" : 1,

"key" : {

"name" : -1

},

"name" : "name\_-1", "ns" : "harsh.website1"

}

]

* **db.website1.createIndex({'name':-1})**

{ "numIndexesBefore" : 3, "note" : "all indexes already exist", "ok" : 1 }

//DROP INDEX

* **db.website.dropIndex({'name':-1})**

{ "nIndexesWas" : 3, "ok" : 1 }> db.website1.dropIndex({'name':1})

{ "nIndexesWas" : 2, "ok" : 1 }> db.website1.dropIndex({'name':1})

{

"nIndexesWas" : 1,

"ok" : 0,

"errmsg" : "can't find index with key:{ name: 1.0 }"

}

//GET INDEXING

* **db.website1.getIndexes() [**

{

"v" : 1,

}

]

* **db.website1.find().pretty()**

{ "\_id" : ObjectId("5ba3509a444926329738012d"), "roll" : 1, "name" : "harsh" }

{ "\_id" : ObjectId("5ba35293444926329738012e"), "roll" : 1, "name" : "harsh" }

>

* **db.website1.createIndex({'name':1})**

{

"createdCollectionAutomatically" : false, "numIndexesBefore" : 1,

"numIndexesAfter" : 2,

"ok" : 1

}

* **db.website1.getIndexes()[**

{

"v" : 1,

"key" : {

"\_id" : 1

},

"name" : "\_id\_",

"ns" : "harsh.website1"

},

{

"v" : 1,

"key" : {"name" : 1

},

"name" : "name\_1", "ns" : "harsh.website1"

}

]

* **db.website1.dropIndex({'name':1})**

{ "nIndexesWas" : 2, "ok" : 1 }

* **db.website1.getIndexes() [**

{

"v" : 1,

"key" : {

"\_id" : 1

},

"name" : "\_id\_",

"ns" : "harsh.website1"

}

]

* **db.website1.createIndex({'name':1,'r':-1})**

{"createdCollectionAutomatically" : false, "numIndexesBefore" : 1,

"numIndexesAfter" : 2,

"ok" : 1

}

* **db.website1.getIndexes() [**

{

"v" : 1,

"key" : {

"\_id" : 1

},

"name" : "\_id\_",

"ns" : "harsh.website1"

},

{

"v" : 1,

"key" : {

"name" : 1,

"r" : -1

},

"name" : "name\_1\_r\_-1", "ns" : "harsh.website1"

}

] (i-search)`db.website1.insert({'roll':1,'name':'harsh'});':