33132

Group C
Assignment No. 16

- Aim :
Implement the aggregation and including with suitable example on above mongodb database
1) Aggregation framework
2) Create and drop different types of indexes and explain() to show the advantages of the indexes.

- Objective :
To understand the concept of aggregation in mongodb.
To implement the concept of document oriented databases.

- Theory :
1) New feature in the mongodb 2.2.0 production release (August 2012)
2) Designed with specific goals of improving performance and usability.
3) Returns result set inline.
4) Supports a non-sharded & sharded input collections
5) Uses a pipeline approach where objects are transformed as they pass through a series of pipeline operators such as matching, projecting, sorting and grouping.

Implementation of aggregation: 33132

-> use teacher

-> db.teacher.find()

-> db.teacher.aggregate([
... { $group : { _id : "$Department", totalsalary : { $sum :
... "$salary" }}])

{
"result" : [
{
"_id" : [
{
"Dept_id" : 113,
"Dept_name" : "ENTC"
}
],
"Total salary : 121000
},
}

-> db.teacher.aggregate([
... $group : { _id : "$Department", totalsalary : { $sum :
... "$salary" }}], { $group : { _id : "$_id.Department",
... Avg Sal : ($sum : "$ totalsalary" }}})

-> db.teacher.aggregate([$group : { _id : "$Department, totalsalary :
{$sum : "$salary" }}, { $group : { _id : "$_id.Department", big :
{ $last : "$_id Dept_name" }, bigsalary : { $last : "$ totalsalary" },
small : { $first : "_id.Dept_name" }, smallsalary : { $first : "$ totalsalary" }}}]

Conclusion:
By performing this, its easy to understand the aggregation operation in mongodb.