Aggregate Functions in mongodb

```
> use Demo
switched to db Demo
> db.getCollectionNames()
[ "Employee", "Student" ]
> db.createCollection('website')
{ "ok" : 1 }
> db.getCollectionNames()
[ "Employee", "Student", "website" ]
```

```
> db.website.insert({'roll':'2','name':'jitesh','amount':2000,'url':'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'});
WriteResult({ "nInserted" : 1 })
```

Sum:

```
> db.website.aggregate({$group:{_id:'$name','total':{$sum:'$amount'}}})
{ "_id" : "harsh", "total" : 1000 }
{ "_id" : "jitesh", "total" : 2000 }
{ "_id" : "ash", "total" : 5000 }
{ "_id" : "rina", "total" : 3000 }
>
```

Avg:

```
> db.website.aggregate({$group:{_id:'$name','total':{$avg:'$amount'}}})
{ "_id" : "harsh", "total" : 1000 }
{ "_id" : "jitesh", "total" : 2000 }
{ "_id" : "ash", "total" : 2500 }
{ "_id" : "rina", "total" : 3000 }
>
```

Min\max

```
> db.website.aggregate({$group:{_id:"$name","Minimum":{$min:"$amount"}}});
{ "_id" : "harsh", "Minimum" : 1000 }
{ "_id" : "jitesh", "Minimum" : 2000 }
{ "_id" : "ash", "Minimum" : 1000 }
{ "_id" : "rina", "Minimum" : 3000 }
> db.website.aggregate({$group:{_id:'$name','Maximum':{$max:'$amount'}}})
{ "_id" : "harsh", "Maximum" : 1000 }
{ "_id" : "jitesh", "Maximum" : 2000 }
{ "_id" : "ash", "Maximum" : 4000 }
{ "_id" : "rina", "Maximum" : 3000 }
```

First

```
> db.website.aggregate({$group:{_id:'$name','First':{$first:'$amount'}}})
{ "_id" : "rina", "First" : 3000 }
{ "_id" : "jitesh", "First" : 2000 }
{ "_id" : "ash", "First" : 4000 }
{ "_id" : "harsh", "First" : 1000 }
```

Last

```
> db.website.aggregate({$group:{_id:'$name','Last':{$last:'$amount'}}})
{ "_id" : "rina", "Last" : 3000 }
{ "_id" : "jitesh", "Last" : 2000 }
{ "_id" : "ash", "Last" : 1000 }
{ "_id" : "harsh", "Last" : 1000 }
>
```

Push

```
> db.website.aggregate({$group:{_id:'$name','array':{$push:'$amount'}}})
{ "_id" : "rina", "array" : [ 3000 ] }
{ "_id" : "jitesh", "array" : [ 2000 ] }
{ "_id" : "ash", "array" : [ 4000, 1000 ] }
{ "_id" : "harsh", "array" : [ 1000 ] }
>
```

AddToSet

```
> db.website.aggregate({$group:{_id:"$name","set":{$addToSet:"$amount"}}});
{ "_id" : "harsh", "set" : [ 1000 ] }
{ "_id" : "jitesh", "set" : [ 2000 ] }
{ "_id" : "ash", "set" : [ 4000, 1000 ] }
{ "_id" : "rina", "set" : [ 3000 ] }
>
```

Count

```
> db.website.aggregate({$group:{_id:'$name','count':{$sum:1}}})
{ "_id" : "harsh", "count" : 1 }
{ "_id" : "jitesh", "count" : 1 }
{ "_id" : "ash", "count" : 2 }
{ "_id" : "rina", "count" : 1 }
>
```