

Aggregation in MongoDB

Query : Create collection as articles with key author and article_name . find out top five authors on the basis of articles written by each author.

```
> db.articles.insert({"author": "Rahul" , "article_name" : "Python" })
> db.articles.insert({"author": "Tejaswini" , "article_name" : "Core Java" })
> db.articles.insert({"author": "korth" , "article_name" : "Adv Java" })
> db.articles.insert({"author": "smith" , "article_name" : "Map Reduce" })
> db.articles.insert({"author": "Rahul" , "article_name" : "java" })
> db.articles.insert({"author": "smith" , "article_name" : "Indexing" })
> db.articles.insert({"author": "alice" , "article_name" : "Query Optimization" })
> db.articles.insert({"author": "smith" , "article_name" : "Aggregation" })
> db.articles.insert({"author": "Rahul" , "article_name" : "MongoDB" })
> db.articles.insert({"author": "Tejaswini" , "article_name" : "Soft Engg" })
> db.articles.insert({"author": "Neha" , "article_name" : "Hadoop" })
> db.articles.insert({"author": "Neha" , "article_name" : "Cuda" })
> db.articles.insert({"author": "Neha" , "article_name" : "Data Mining" })
> db.articles.find().pretty()
{
  "_id" : ObjectId("5d9970671ffbfd62b1e690c5"),
  "author" : "Rahul",
  "article_name" : "Python"
}
{
  "_id" : ObjectId("5d9971701ffbfd62b1e690d0"),
  "author" : "Tejaswini",
  "article_name" : "Core Java"
}
{
  "_id" : ObjectId("5d9971821ffbfd62b1e690d1"),
  "author" : "korth",
  "article_name" : "Adv Java"
}
{
  "_id" : ObjectId("5d99719a1ffbfd62b1e690d2"),
  "author" : "smith",
  "article_name" : "Map Reduce"
}
{
  "_id" : ObjectId("5d9971af1ffbfd62b1e690d3"),
  "author" : "Rahul",
  "article_name" : "java"
}
{
  "_id" : ObjectId("5d9971be1ffbfd62b1e690d4"),
```

```
"author" : "smith",
"article_name" : "Indexing"
}
{
  "_id" : ObjectId("5d9971cc1ffbfd62b1e690d5"),
  "author" : "alice",
  "article_name" : "Query Optimization"
}
{
  "_id" : ObjectId("5d99736c1ffbfd62b1e690d9"),
  "author" : "smith",
  "article_name" : "Aggregation"
}
{
  "_id" : ObjectId("5d9973861ffbfd62b1e690da"),
  "author" : "Rahul",
  "article_name" : "MongoDB"
}
{
  "_id" : ObjectId("5d99739e1ffbfd62b1e690db"),
  "author" : "Tejaswini",
  "article_name" : "Soft Engg"
}
{
  "_id" : ObjectId("5d9975be1ffbfd62b1e690dd"),
  "author" : "smith",
  "article_name" : "Data Structure"
}
{
  "_id" : ObjectId("5d9976441ffbfd62b1e690de"),
  "author" : "Neha",
  "article_name" : "Data Mining"
}
{
  "_id" : ObjectId("5d9976711ffbfd62b1e690e1"),
  "author" : "Neha",
  "article_name" : "Hadoop"
}
{
  "_id" : ObjectId("5d9976781ffbfd62b1e690e2"),
  "author" : "Neha",
  "article_name" : "Cuda"
}
```

```
> db.articles.aggregate( {"$project" : {"author" : 1}}
{ "_id" : ObjectId("5d9970671ffbfd62b1e690c5"), "author" : "Rahul" }
{ "_id" : ObjectId("5d9971701ffbfd62b1e690d0"), "author" : "Tejaswini" }
{ "_id" : ObjectId("5d9971821ffbfd62b1e690d1"), "author" : "korth" }
{ "_id" : ObjectId("5d99719a1ffbfd62b1e690d2"), "author" : "smith" }
{ "_id" : ObjectId("5d9971af1ffbfd62b1e690d3"), "author" : "Rahul" }
{ "_id" : ObjectId("5d9971be1ffbfd62b1e690d4"), "author" : "smith" }
{ "_id" : ObjectId("5d9971cc1ffbfd62b1e690d5"), "author" : "alice" }
{ "_id" : ObjectId("5d99736c1ffbfd62b1e690d9"), "author" : "smith" }
{ "_id" : ObjectId("5d9973861ffbfd62b1e690da"), "author" : "Rahul" }
{ "_id" : ObjectId("5d99739e1ffbfd62b1e690db"), "author" : "Tejaswini" }
{ "_id" : ObjectId("5d9975be1ffbfd62b1e690dd"), "author" : "smith" }
{ "_id" : ObjectId("5d9976441ffbfd62b1e690de"), "author" : "Neha" }
{ "_id" : ObjectId("5d9976711ffbfd62b1e690e1"), "author" : "Neha" }
{ "_id" : ObjectId("5d9976781ffbfd62b1e690e2"), "author" : "Neha" }
```

```
> db.articles.aggregate( {"$project" : {"author" : 1}}, {"$group" : {"_id" : "$author", "count" :
{"$sum" : 1}}})
{ "_id" : "Neha", "count" : 3 }
{ "_id" : "smith", "count" : 4 }
{ "_id" : "alice", "count" : 1 }
{ "_id" : "korth", "count" : 1 }
{ "_id" : "Tejaswini", "count" : 2 }
{ "_id" : "Rahul", "count" : 3 }
```

```
db.articles.aggregate( {"$project" : {"author" : 1}}, {"$group" : {"_id" : "$author", "count" :
{"$sum" : 1}}}, {"$sort" : {"count" : -1}} )
{ "_id" : "smith", "count" : 4 }
{ "_id" : "Neha", "count" : 3 }
{ "_id" : "Rahul", "count" : 3 }
{ "_id" : "Tejaswini", "count" : 2 }
{ "_id" : "alice", "count" : 1 }
{ "_id" : "korth", "count" : 1 }
```

```
> db.articles.aggregate( {"$project" : {"author" : 1}}, {"$group" : {"_id" : "$author", "count" :
{"$sum" : 1}}}, {"$sort" : {"count" : -1}}, {"$limit" : 5})
{ "_id" : "smith", "count" : 4 }
{ "_id" : "Rahul", "count" : 3 }
{ "_id" : "Neha", "count" : 3 }
{ "_id" : "Tejaswini", "count" : 2 }
{ "_id" : "korth", "count" : 1 }
```