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show dbs;
admin 0.000GB
config 0.000GB
local 0.000GB
rahul 0.000GB
> use rahul;
switched to db rahul
>
>
-----#-----
> db.createCollection("users");
{ "ok" : 1 }
>
-----#-----
dbdb.users.insertMany([
... { username: "Sanket",
...   joiningDate: "12/01/2023",
...   sportsPreferences: ["Tennis", "Swimming"]
... },
... { username: "Dhanin Rao",
...   joiningDate: "01/02/2023",
...   sportsPreferences: ["Football"],
... },
... { username: "Rahul",
...   joiningDate: "21/03/2023",
...   sportsPreferences: ["Cycling", "Basketball"],
... },
... {username: "Dhananjay",
...   joiningDate: "08/01/2023",
...   sportsPreferences: ["Throwball", "Basketball"],
... }]);
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("653004a0607357740f0bc4ad"),
    ObjectId("653004a0607357740f0bc4ae"),
    ObjectId("653004a0607357740f0bc4af"),
    ObjectId("653004a0607357740f0bc4b0")
  ]
}
-----#-----#-----
> db.users.createIndex({sportsPrefernces:1});
{
  "createdCollectionAutomatically" : false,
  "numIndexesBefore" : 2,
  "numIndexesAfter" : 3,
  "ok" : 1
}
-----#-----#-----
> db.users.createIndex({joinDate:1, sportsPrefernces:1 });
{
  "createdCollectionAutomatically" : false,
  "numIndexesBefore" : 3,
  "numIndexesAfter" : 4,
  "ok" : 1
}

```

```

}
>
-----#-----#-----
> db.users.aggregate([
... { $project: { _id: 0, username: { $toUpper: "$username" } } },
... { $sort: { username: 1 } }]);
{ "username" : "DHANANJAY" }
{ "username" : "DHANIN RAO" }
{ "username" : "RAHUL" }
{ "username" : "SANKET" }
>
>
-----#-----#-----
> db.users.aggregate([
... { $project: { _id: 0, username: 1, joiningDate: { $month: "$joinDate" } } },
... { $sort: { joiningDate: 1, username: 1 } }]);
{ "username" : "Dhananjay", "joiningDate" : null }
{ "username" : "Dhanin Rao", "joiningDate" : null }
{ "username" : "Rahul", "joiningDate" : null }
{ "username" : "Sanket", "joiningDate" : null }
>
>
>
-----#-----#-----
> db.users.aggregate([
... { $group: {
...   _id: { month: { $month: "$joinDate" }, year: { $year: "$joinDate" } },
...   count: { $sum: 1 }
... }
... },
... {
...   $sort: { "_id.year": 1, "_id.month": 1 }
... }
... ]]);
{ "_id" : { "month" : null, "year" : null }, "count" : 4 }
-----#-----#-----

```