1. **Match**
2. **Count**

Ques 🡺 How many users are active ?

[

{

$match: {

isActive: true,

},

},

{

// Number of users which are active ?

$count: "NoofActiveUser",

},

]

Ques 🡺 group the data based on gender

1. **Group**

[

{

//

$group: {

\_id: "$gender"

}

}

]

1. **Avg**

**Ques 🡺**  // group the data based on gender and count avg age

[

{

$group: {

\_id: "$gender",

avgerageAge: {

$avg: "$age"

}

}

}

]

Ques 🡺 group the all data into one document and fint the avgerage age

[

{

$group: {

\_id: null,

avgerageAge: {

$avg: "$age"

}

}

}

]

1. **Match and Group**

Ques 🡺 group the data based on age and find the age of 37

[

{

$group:{

\_id: "$age"

},

},

{

$match: {

\_id:37

}

}

]

1. **Sum**

**Ques🡺** count Number of user for each age group

[

{

$group: {

\_id: "$age",

count: { $sum: 1 }

}

}

]

Ques 🡺 count avgerage age of whole document

[

{

$group: {

// convert many doc to 1 single doc in order to count avg

\_id: null,

AvgerageAge:{

$avg:"$age"

}

}

}

]

1. **Sort**

Ques 🡺 group it by the fruits and sort it

[

// stage 1

{

$group:{

\_id:"$favoriteFruit",

count: {

$sum:1

}

}

},

// stage 2

{

$sort:{

// count field is not avaliable in orginal doc but

// as we are in arrg pipeline hence the stage 1 output will be the new

// input doc for stage 2

count:-1

// -1 : higher to lower

// 1 : lower to higer

}

}

]

Ques 🡺 List the top 2 farovitre fruit among all

[

// stage 1

{

$group:{

\_id:"$favoriteFruit",

count: {

$sum:1

}

}

},

// stage 2

{

$sort:{

// count field is not avaliable in orginal doc but

// as we are in arrg pipeline hence the stage 1 output will be the new

// input doc for stage 2

count:-1

}

},

{

// give me top 2

$limit: 2

}

]

Ques 🡺 Find the total number of males and females from high to low

[

{

$group:{

\_id:"$gender",

count:{

$sum:1

}

}

},

{

$sort: {

count: -1 // desending order

}

}

]

Ques 🡺 Which country has the higest number of registered user

[

{

$group: {

\_id: "$company.location.country",

NoOfRegistereduser:{

$sum:1

}

},

},

{

$sort: {

NoOfRegistereduser: -1

}

},

{

$limit: 1

}

]

Ques 🡺 what is avg number of tags per user  
  
[

{

$unwind: {

path:"$tags"

}

},

{

$group:{

\_id:"$\_id",

NumberOfTags:{

$sum: 1

}

}

},

{

$group: {

\_id: null,

averageNumberOfTage:{

$avg:"$NumberOfTags"

}

}

}

]

**UNWIND**

Ques 🡺 how many users does have 'enim' as one of their tags

[

{

$unwind:{

path: "$tags",

}

},

{

$match: {

tags:"enim"

}

},

{

$count:"NoOfenimUsers"

}

]

or

[

{

$match: {

tags: "enim"

}

},

{

$count:"NoOfenimUser"

}

]

**PROJECT**

Ques 🡺 What are the name and age of users who are inactive and have ‘velit’ as a tag

[

{

$match: {

tags: "velit",

isActive : false

}

},

{

$project:{

name:1,

age:1

}

}

]

Ques 🡺 how many users has phone number starting with +1 (940)

[

{

$match:{

"company.phone" : /^\+1 \(940\)/

}

},

{

$count : "NoOfUsers"

}

]

Ques 🡺 who has registered recently

[

{

$sort:{

registered:-1

}

},

{

$limit:4

},

{

$project:{

name:1,

age:1,

registered:1

}

}

]

Ques 🡺 Categorized users based on favorite fruit

**PUSH**

[

{

$group:{

\_id:"$favoriteFruit",

users:{

$push:"$name"

}

}

}

]

Ques 🡺 Categorized users based on favorite fruit and have name and age

[

{

$group:{

\_id:"$favoriteFruit",

users:{

$push:{

name: "$name",

age: "$age"

}

}

}

}

]

Ques 🡺 how many users does have 'ad' as second position in tags

[

{

$match:{

"tags.1" : "ad"

}

},

{

$count : "NoOfUsers"

}

]

**ALL**

Ques 🡺 Find users who have both 'enim' and 'id' as their tags

[

{

$match:{

"tags":{

$all:['enim' , 'id']

}

}

},

]

Ques 🡺 list all companies which is located in USA with their corresponding user count

// aa total count che

[

{

$match: {

"company.location.country" : "USA"

}

},

{

$project:{

"company.location.country" : 1

}

},

{

$count: “NoOfUsers”

}

]

// with their corresponding user count

[

{

$match: {

"company.location.country" : "USA"

}

},

{

$group:{

\_id:"$company.title",

count : {

$sum:1

}

}

}

]

Ques 🡺 JOINS in mongodb is done through “**LOOKUP**”

[

{

$lookup: {

from: "authors",

localField: "author\_id",

foreignField: "\_id",

as: "author\_details"

}

},

{

$addFields: {

authorDetails: {

$arrayElemAt: ["$author\_details",0]

}

}

}

]

**INNER JOIN**

[

{

$lookup: {

from: "authors",

localField: "author\_id",

foreignField: "\_id",

as: "author\_details"

}

},

{

$addFields: {

authorDetails: {

$arrayElemAt: ["$author\_details",0]

}

}

},

{

$match: {

"authorDetails.birth\_year" : 1896

}

}

]

OR

[

{

$lookup: {

from: "authors",

localField: "author\_id",

foreignField: "\_id",

as: "author\_details"

}

},

{

$unwind: "$author\_details"

},

{

$match: {

"author\_details.birth\_year": 1896

}

}

]



