Documentation :

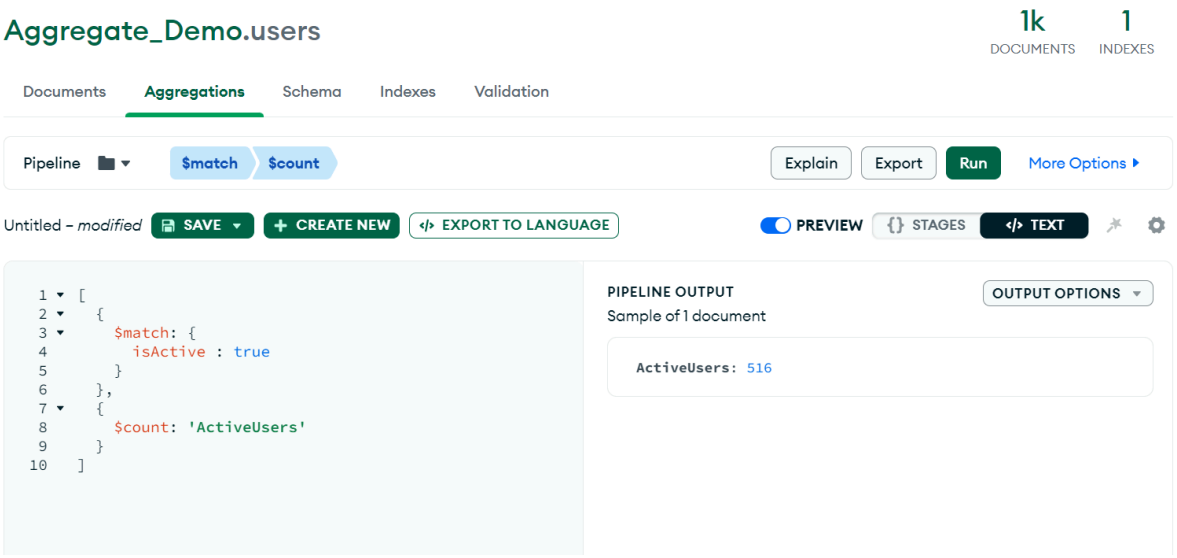
https://www.mongodb.com/docs/manual/core/aggregation-pipeline/

Random Data :

https://gist.github.com/hiteshchoudhary

$match :
Return data with field that mention in match segment.

For example :



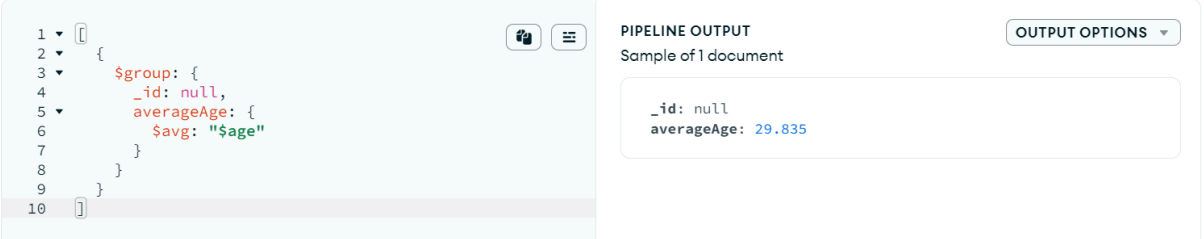
How many users are active :

In above it first return documents that have isActive : true and then it goes to input as in next stage and count returns number of documents.

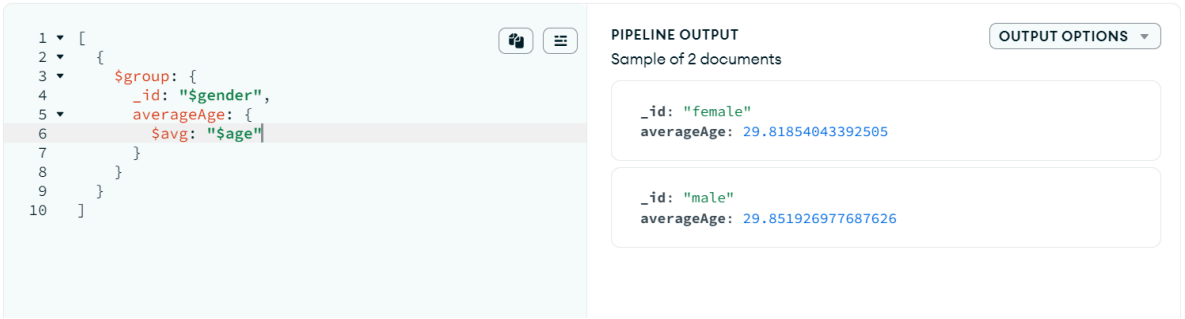
Question 2 :

What is the average age of all users :

$group : group all documents based on field name.
If you want to group all documents together then use “null”.



Group them by field gender.



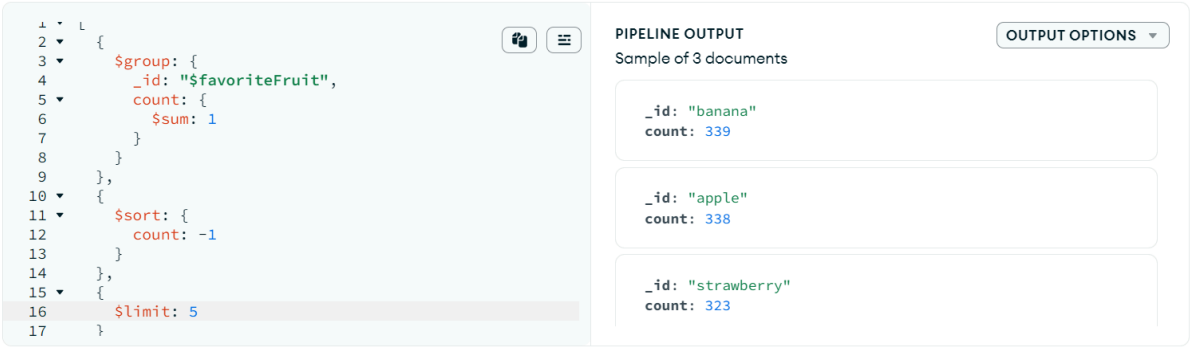
$group : groups value based on unique values of all documents.

Question 3 :

List the top 5 most common fruits among all users :

$sort : sort the document based on count if you give 1 :lowest value at top ,
-1 : highest value at top.

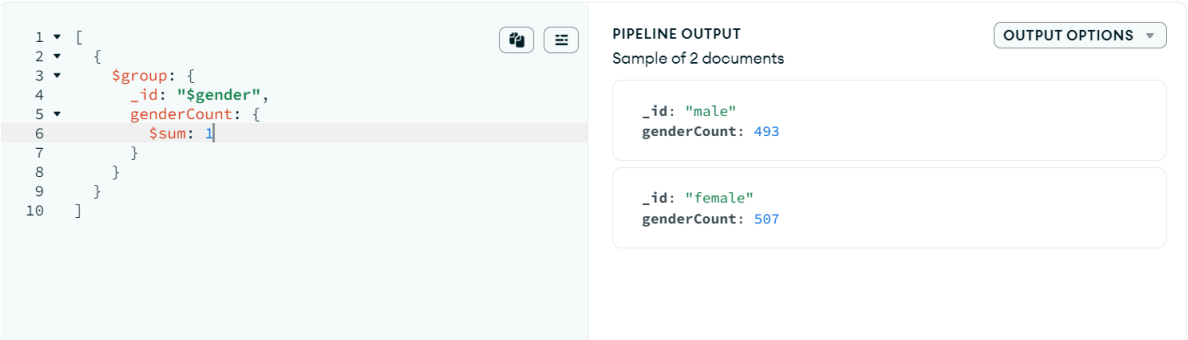
$limit : returns number of documents from the result that mentioned.



Accumulator : uses previous value and counts it.

Question 4 :

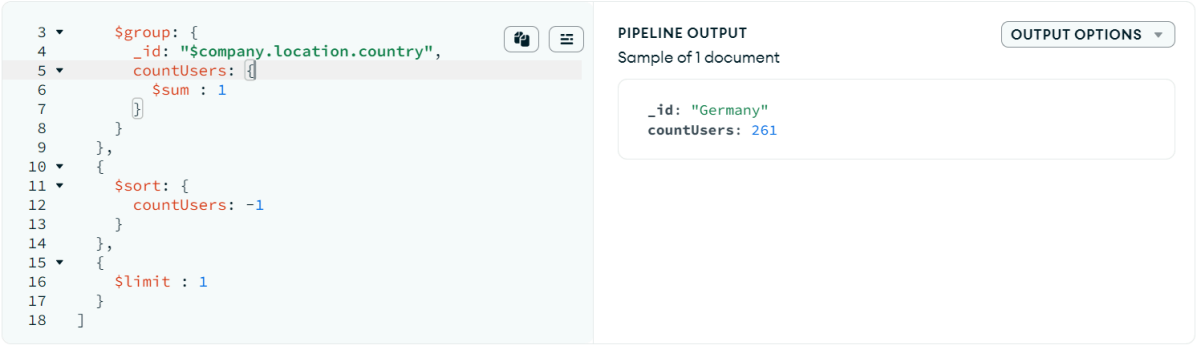
Find the total number of males and females :



Counting is done through operator sum. We have to sum them because firstly we grouped them together.

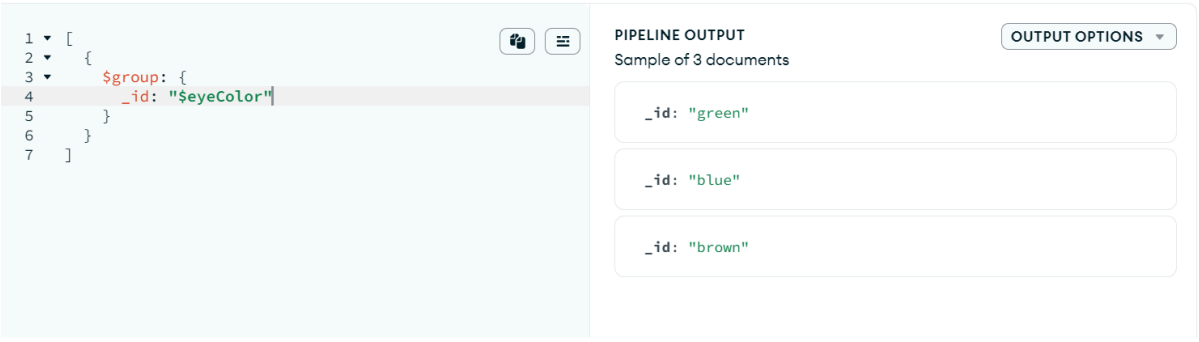
Question 5 :

Which country has the highest number of registered users :



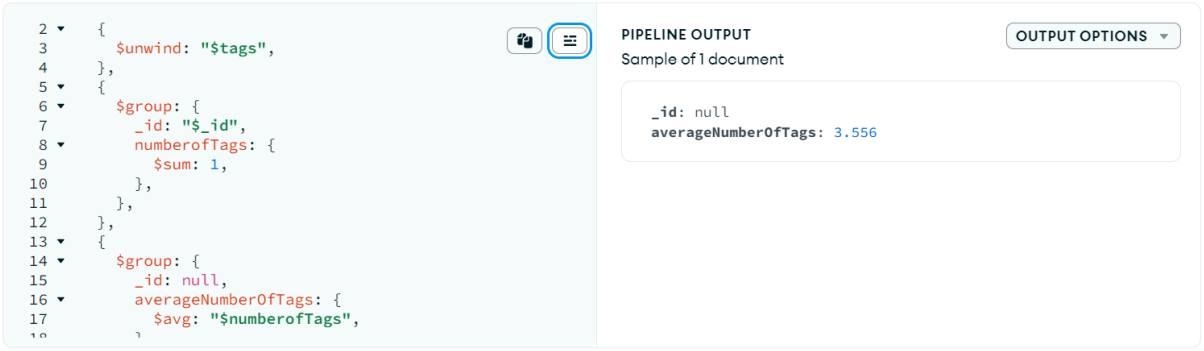
Question 6 :

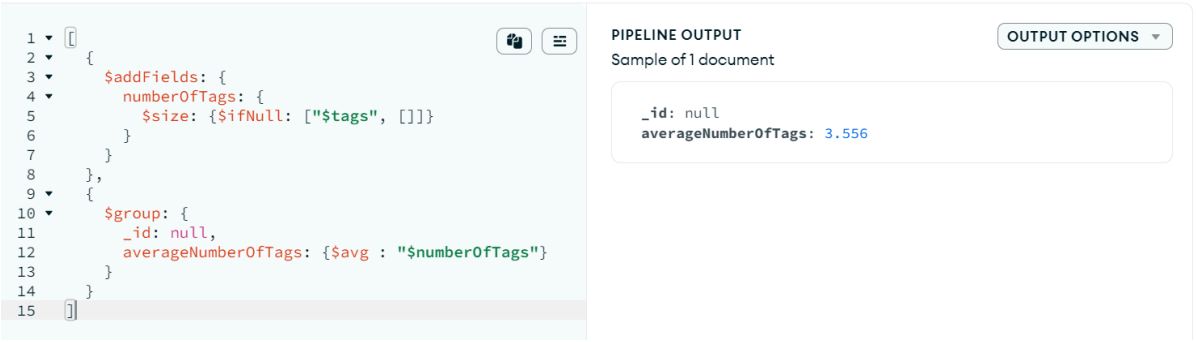
List all unique eye colours present in the collection :



Question 7 :

What is the average number of tags per users :



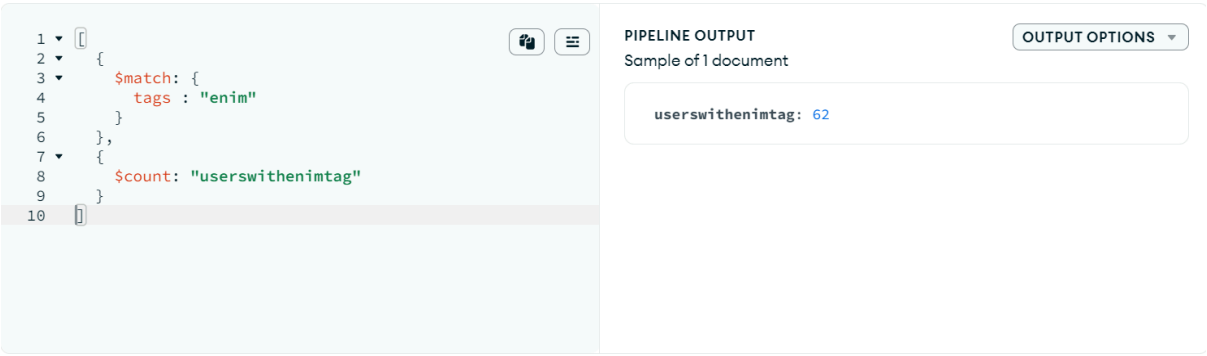


$unwind : Deconstructs an array field from the input documents to output a document for *each* element.

$addFields : Adds new fields to documents. `$addFields` outputs documents that contain all existing fields from the input documents and newly added fields.

Question 8 :

How many users have ‘enim’ as one of their tags :

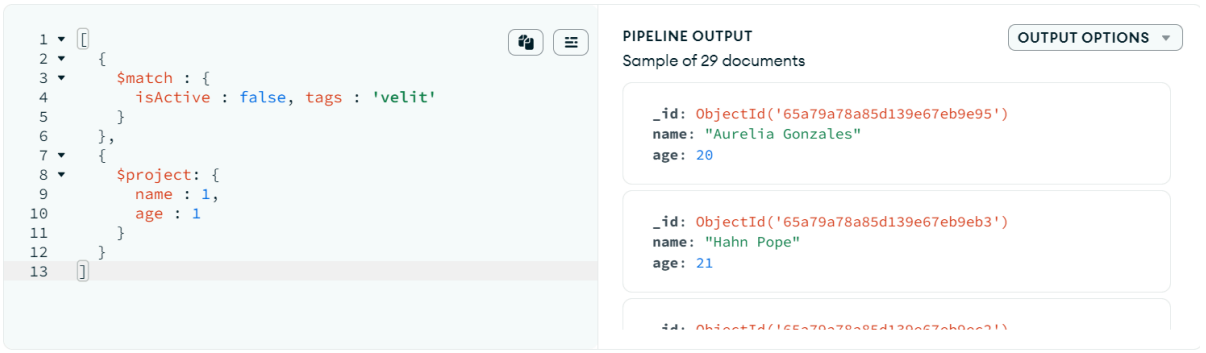


Match : filters out the document.

Question 9 :

What are the age and names of the users who are inactive and have ‘velit’ as a tag :

$project : passes along the documents with the requested fields to the next stage in the pipeline.

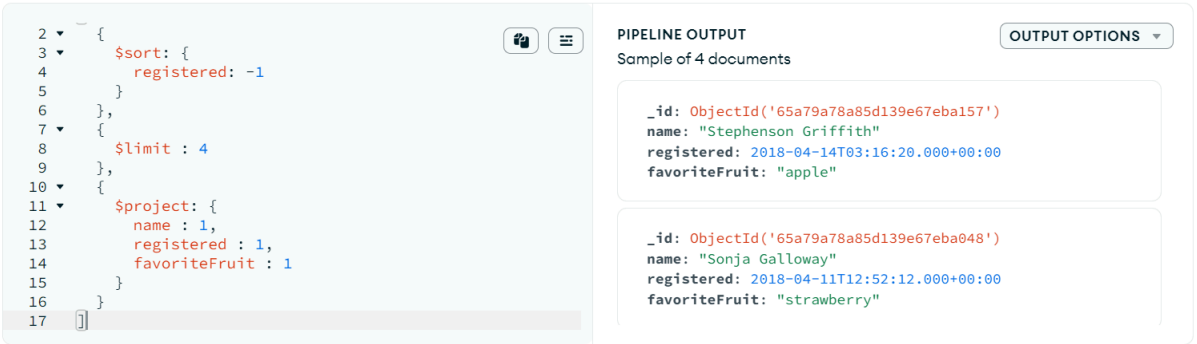


Question 10 :

How many users have a phone number starting with +1(940) :

Question 11 :

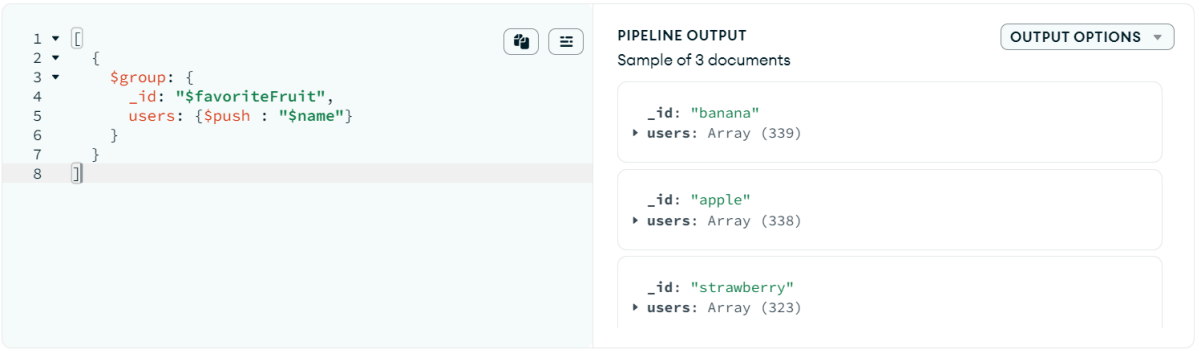
Who has registered most recently :



Question 12 :

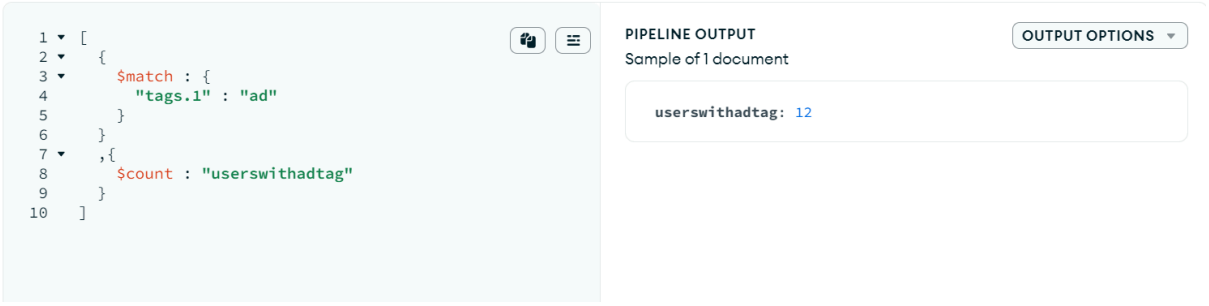
Categorise users by their favourite fruit :

$push : return an array by adding existing values to an array.



Question 13 :

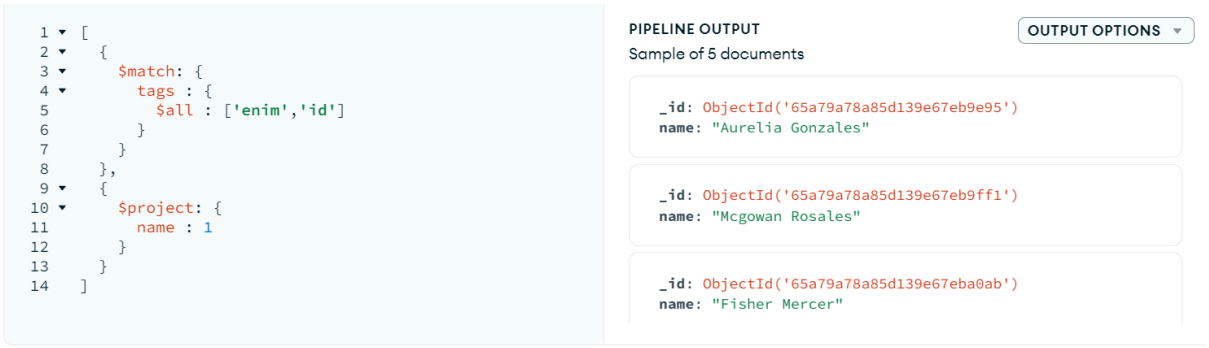
How many users have ‘ad’ as the second tag in their list of tags :



Question 14 :

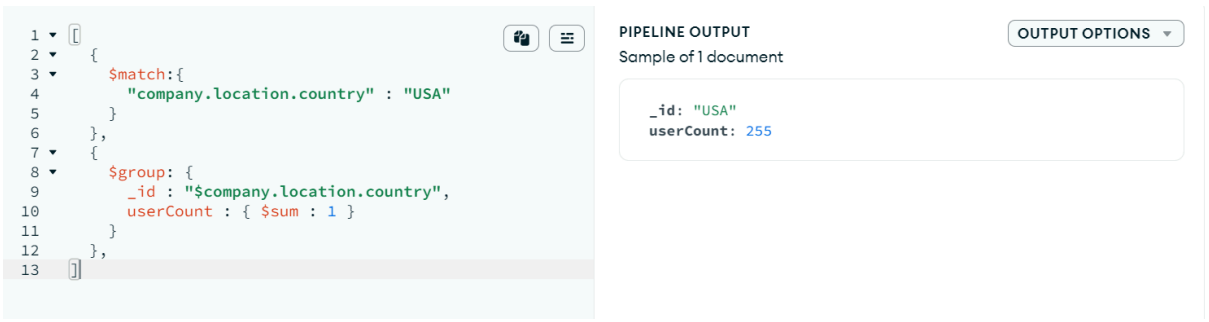
Find users who have both ‘enim’ and ‘id’ as tag :

$all : selects the document where the value of an array field contains specific elements.



Question 15 :

List all the companies located in the USA with their corresponding users count.


[
{
$match:{
"company.location.country" : "USA"
}
},
{
$group: {
_id : "$company.location.country",
userCount : { $sum : 1 }
}
},
]
PIPELINE OUTPUT
Sample of 1 document
OUTPUT OPTIONS
_id: "USA"
userCount: 255

Question 16 :