

MONGO ADVANCED QUERIES

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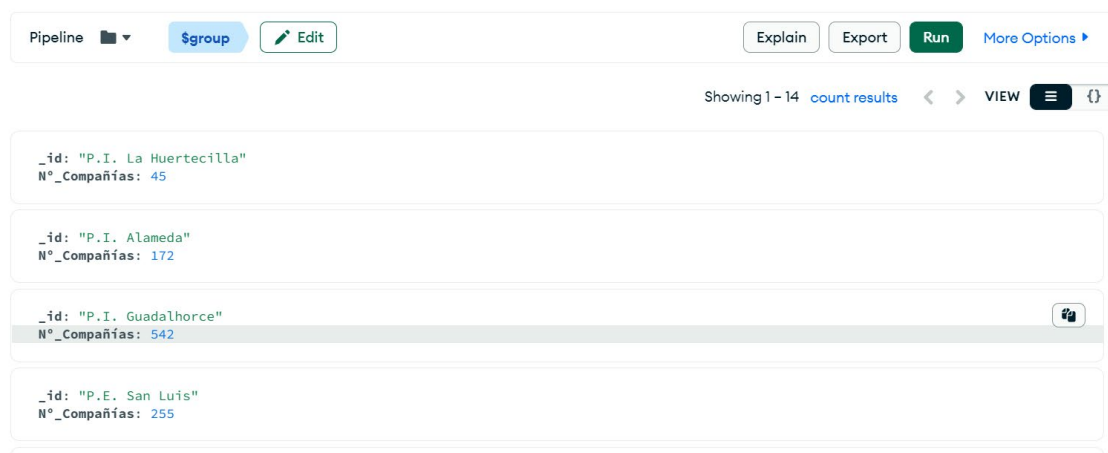
1. [2 puntos] Find the number of companies in each park

PIPELINE:



```
1 {  
2   _id: "$parque",  
3   N°_Compañías: {  
4     $count: {},  
5   },  
6 }
```

RESULT:



Pipeline	\$group	Edit	Explain	Export	Run	More Options
Showing 1 - 14 count results						
VIEW						
<pre>_id: "P.I. La Huertecilla" N°_Compañías: 45</pre>						
<pre>_id: "P.I. Alameda" N°_Compañías: 172</pre>						
<pre>_id: "P.I. Guadalhorce" N°_Compañías: 542</pre>						
<pre>_id: "P.E. San Luis" N°_Compañías: 255</pre>						

2. [2 puntos] Split the phones that contain "-" to have the phones as separated values, and then eliminate any space in the numbers. Calculate at the end of the pipeline how many companies does have a phone with a different structure (containing other charecters, or more than 9 numbers)

PIPELINE:

☰

▼

\$match

☑

🗑️

+

```
1 {
2   telefono: {
3     $exists: true,
4   },
5 }
```

☰

▼

\$project

☑

🗑️

+

```
1 {
2   telefono: {
3     $split: ["$telefono", "-"],
4   },
5 }
```

☰

▼

\$unwind

☑

🗑️

+

```
1 {
2   path: "$telefono",
3 }
```

≡

▼

Sproject

▼

🗑️

+

1

▼

{

2

▼

telefono: {

3

▼

\$replaceAll: {

4

input: "\$telefono",

5

find: " ",

6

replacement: "",

7

},

8

},

9

}

≡

▼

Smatch

▼

🗑️

+

1

▼

{

2

▼

telefono: {

3

▼

\$not: {

4

\$regex: /^\\d{9}\$/,

5

},

6

},

7

}

≡

▼

\$group

▼

🗑️

+

1

▼

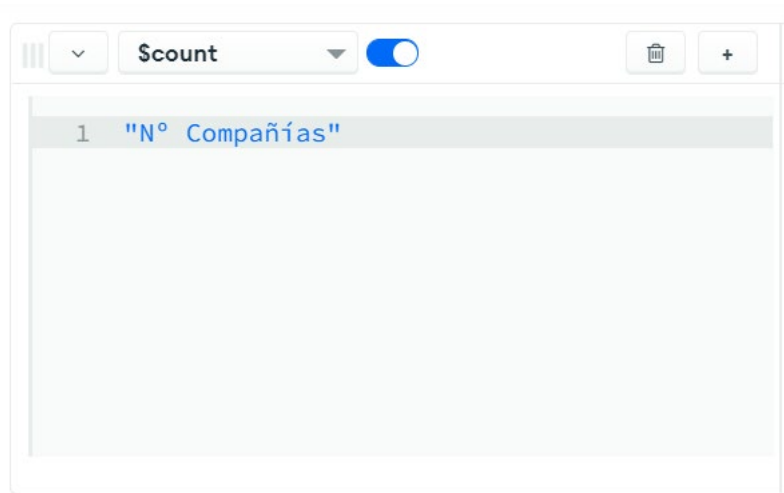
{

2

_id: "\$_id",

3

}



RESULT:

Output after [\\$count](#) stage (Sample of 1 document)

N° Compañías: 25

3. [2 puntos] Obtain the average number of companies in the parks

PIPELINE:



\$group

```
1 {  
2   _id: null,  
3   NumMedEmp: {  
4     $avg: "$NE",  
5   },  
6 }
```

\$project

```
1 /**  
2  * specifications: The fields to  
3  * include or exclude.  
4  */  
5 {  
6   _id : 0  
7 }
```

RESULT:

Output after [\\$project](#) stage (Sample of 1 document)

NumMedEmp: 146.85714285714286

4. [2 puntos] From the result of the first stages of exercise 2, split the entries so each company has a different document for each possible phone number.

PIPELINE:

☰

▼

Smatch

☑

🗑

+

```
1 {
2   telefono: {
3     $exists: true,
4   },
5 }
```

☰

▼

Sproject

☑

🗑

+

```
1 {
2   telefono: {
3     $split: ["$telefono", "-"],
4   },
5 }
```

☰

▼

Sunwind


☑

🗑

+

```
1 {
2   path: "$telefono",
3 }
```

```
1 {
2   telefono: {
3     $replaceAll: {
4       input: "$telefono",
5       find: " ",
6       replacement: "",
7     },
8   },
9 }
```



The screenshot shows the Sunwind IDE interface. At the top, there is a title bar with the text "Sunwind" and a blue toggle switch. Below the title bar, there is a code editor with a light blue background. The code editor contains a JSON snippet:

```
1 {  
2   path: "$telefono",  
3 }
```

The code is displayed in a monospaced font. The first line is a left curly brace, the second line is a key-value pair with the key "path" and the value "\$telefono", and the third line is a right curly brace. The second line is highlighted with a light blue background.

RESULT:

Pipeline

\$match

\$project

\$unwind

\$project

+2

Edit

Explain

Export

Run

More Options

Showing 1 - 20 of 2521

VIEW

```

_id: ObjectId('639caf64fa35a7e61b77feb1')
telefono: "951432048"

_id: ObjectId('639caf64fa35a7e61b77feb1')
telefono: "638222142"

_id: ObjectId('639caf64fa35a7e61b77feb2')
telefono: "952357617"

_id: ObjectId('639caf64fa35a7e61b77feb3')
telefono: "952349495"

```

5. [2 puntos] Are there any phone that is the same for different companies? Use a pipeline to calculate it.

The answer is yes, there are.

PIPELINE:

The image displays three stages of a data pipeline configuration, each in a separate window with a title bar, a dropdown menu, a toggle switch, and icons for deletion and addition.

- Stage 1: Smatch**
 - Toggle: On
 - Code:

```
1 {
2   telefono: {
3     $exists: true,
4   },
5 }
```
- Stage 2: \$project**
 - Toggle: On
 - Code:

```
1 {
2   telefono: {
3     $split: ["$telefono", "-"],
4   },
5 }
```
- Stage 3: Sunwind**
 - Toggle: On
 - Code:

```
1 {
2   path: "$telefono",
3 }
```


Project

```
1 {
2   telefono: {
3     $replaceAll: {
4       input: "$telefono",
5       find: " ",
6       replacement: "",
7     },
8   },
9 }
```

Project

```
1 {
2   telefono: {
3     $replaceAll: {
4       input: "$telefono",
5       find: ".",
6       replacement: "",
7     },
8   },
9 }
```

Project

```
1 {
2   telefono: {
3     $split: ["$telefono", "/"],
4   },
5 }
```

Sunwind

```
1 {
2   path: "$telefono",
3 }
```

\$group

```
1 {
2   _id: "$telefono",
3   Count: {
4     $count: {},
5   },
6 }
```

\$match

```
1 {
2   Count: {
3     $gte: 2,
4   },
5 }
```

RESULT:

Pipeline	\$match	\$project	\$unwind	\$project	+5	Edit	Explain	Export	Run	More Options
Showing 1 - 20 of 55										
VIEW										
<div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div></div></div><div><div></div><div></div></div></div></div></div>										
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