

Universitat Autònoma de Barcelona  
Facultat de Ciències



## ENTREGA 10 BDNR

*Autors:*

Gerard Lahuerta & Ona Sánchez  
1601350 — 1601181

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## 1 Resolució apartat 1

Codi:

```
db.comtrades.aggregate([
  {$match : {"partner": "France"}},
  {$project : {"year":1, "value":1}},
  {$sort: {"year":1}}])
```

Output:

▲ (1) 641451ba7d0a89b71a262ff4	{ year : "2018", value : "30671270" }	Document
🔗 _id	641451ba7d0a89b71a262ff4	ObjectId
📄 value	30671270	String
📄 year	2018	String
▶ (2) 641451ba7d0a89b71a262ffd	{ year : "2019", value : "28565040" }	Document

## 2 Resolució apartat 2

Codi:

```
db.comtrades.aggregate([
  {$addFields: {"qtyUnit": {$cond : {
    if:{$eq:["0", "$wty"]},
    then: "NOT_INFO",
    else: ["$wty", "$unit"]}
  }}}},
  {$project: {"year":1, "partner_iso":1, "reporter_iso":1, "qtyUnit":1}}
])
```

Output:

▲ (1) 641451ba7d0a89b71a262ff0	{ year : "2018", reporter_iso : "MEX", partner_iso : "WLD", qtyUnit : "NOT_INFO" } (5 fields)	Document
🔗 _id	641451ba7d0a89b71a262ff0	ObjectId
📄 partner_iso	WLD	String
📄 qtyUnit	NOT_INFO	String
📄 reporter_iso	MEX	String
📄 year	2018	String
▶ (2) 641451ba7d0a89b71a262ff1	{ year : "2018", reporter_iso : "MEX", partner_iso : "ARG", qtyUnit : "NOT_INFO" } (5 fields)	Document
▶ (3) 641451ba7d0a89b71a262ff2	{ year : "2018", reporter_iso : "MEX", partner_iso : "AUS", qtyUnit : [ "7438", "Volume in litres" ] } (5 fields)	Document
▶ (4) 641451ba7d0a89b71a262ff3	{ year : "2018", reporter_iso : "MEX", partner_iso : "CHL", qtyUnit : [ "49939", "Volume in litres" ] } (5 fields)	Document
▶ (5) 641451ba7d0a89b71a262ff4	{ year : "2018", reporter_iso : "MEX", partner_iso : "FRA", qtyUnit : [ "1438216", "Volume in litres" ] } (5 fields)	Document

### 3 Resolució apartat 3

Codi:

```
db.comtrades.aggregate([
  {$match:{$and : [{"partner":"Germany"}, {"year":"2018"}]}},
  {$count:"Transaccions"}
])
```

Output:

Key	Value	Type
Transaccions	1	Int32

### 4 Resolució apartat 4

Codi:s

```
db.products.aggregate([
  {$match:{$and:[{"category":"Health"},
    {"price":{$lte:75}}, {"price":{$gte:30}}]}},
  {$project: {"name":1, "category":1, "price":1}},
  {$sort: {"price":-1}},
  {$skip:3},
  {$limit:3}
])
```

Output:

Key	Value	Type
No records found		

### 5 Resolució apartat 5

Codi:

```
db.products.aggregate([
  {$match:{$and:[{"category":"Health"}, {"price":{$lte:75}},
    {"price":{$gte:30}}]}},
  {$project: {"name":1, "category":1, "price":1}},
  {$sort: {"price":-1}},
  {$count:"#Documents"}
])
```

Output:

Key	Value	Type
#Documents	2	Int32

## 6 Resolució apartat 6

Codi:

```
db.products.aggregate([
  {$match: {"category": "Kids"}},
  {$addFields: {"Rebaixa" : 0.1}},
  {$addFields: {"Resta": {$multiply: ["$Rebaixa", "$price"]}}},
  {$addFields: {"Preu_Amb_Descompte": {$subtract: [ "$price", "$Resta" ]}}},
  {$project: {"category":1, "name":1, "price":1,"Preu_Amb_Descompte": 1}}
])
```

Output:

Key	Value	Type
(1) 6414767839a736b5d17825ef	{ category : "Kids", name : "t-shirt", price : 4.75, Preu_Amb_Descompte : 4.275 } (5 fields)	Document
_id	6414767839a736b5d17825ef	ObjectId
category	Kids	String
name	t-shirt	String
Preu_Amb_Descompte	4,275.0	Double
price	4,75.0	Double
(2) 6414767839a736b5d17825f0	{ category : "Kids", name : "Soft toy", price : 11.99, Preu_Amb_Descompte : 10.791 } (5 fields)	Document
(3) 6414767839a736b5d17825f1	{ category : "Kids", name : "jacket", price : 33.99, Preu_Amb_Descompte : 30.591 } (5 fields)	Document
(4) 6414767839a736b5d17825f2	{ category : "Kids", name : "Cards game", price : 6.5, Preu_Amb_Descompte : 5.85 } (5 fields)	Document