

## Day 4 – Partie 1

### Vidéo

Création db nommé vidéo db :

The screenshot shows the MongoDB Compass interface for a database named 'videodb'. It displays the following statistics:

Storage size:	Collections:	Indexes:
4.10 kB	1	1

Création de la collection

The screenshot shows the MongoDB Compass interface for the 'videodb' database, specifically the 'Collections' tab. It displays two collections:

Collection Name	Storage size	Documents	Avg. document size	Indexes	Total index size
video	20.48 kB	1	94.00 B	1	20.48 kB
video_recording	20.48 kB	3	84.00 B	1	36.86 kB

Création document :

The screenshot shows the MongoDB Compass interface for the 'videodb.video\_recording' collection, specifically the 'Documents' tab. It displays three documents:

Document ID	Document Content
1	{ "id": 1, "Titre": "Les Misérables", "Réalisateur": "Tom Hooper", "Temps d'exécution": 158 }
2	{ "id": 2, "Titre": "Skyfall", "Réalisateur": "Sam Mendes", "Durée d'exécution": 137 }
3	{ "id": 3, "Titre": "Les grands hommes", "Réalisateur": "Raoul Walsh" }

Recherche dans la collection nommé video\_recordings :

FILTER

{\_id : 1}

OPTIONS

FIND

RESET

↺

⋮

ADD DATA

VIEW

LIST

JSON

TABLE

Displaying documents 1 - 1 of 1

◀

>

REFRESH

▶

\_id: 1

Titre: "Les Misérables"

Réalisateur: "Tom Hooper"

Temps d'exécution: 158

✎

📄

📁

🗑

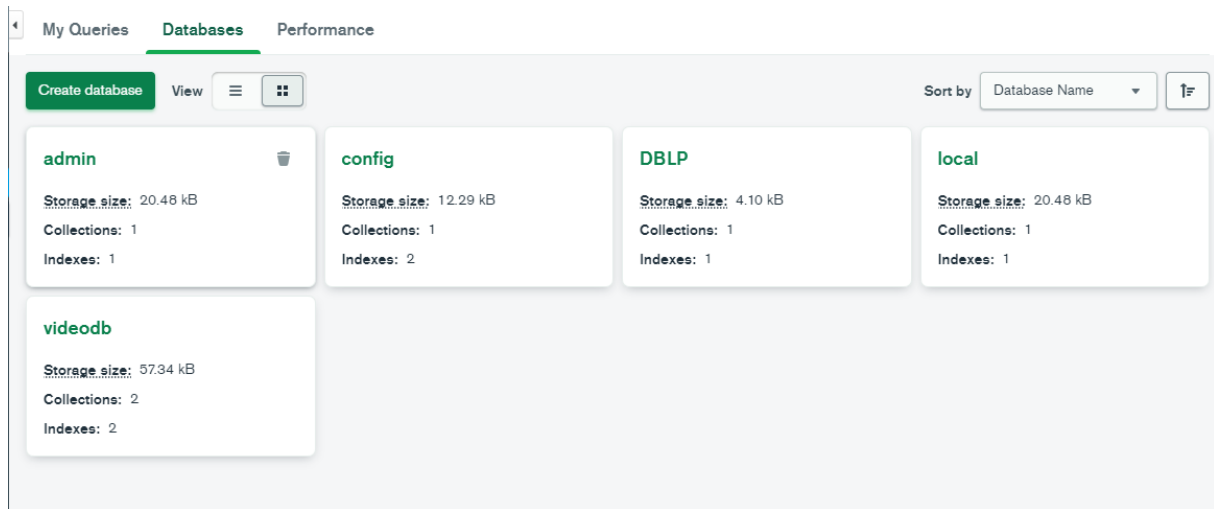
[illegible]

A screenshot of the MongoDB Compass web application. The top bar shows a filter applied: "Réalisateur : 'Raoul Walsh'". Below the filter bar, there are buttons for "ADD DATA", "VIEW", and icons for different views (list, grid, etc.). On the right side of the top bar, it says "Displaying documents 1 - 1 of 1" with navigation arrows and a "REFRESH" button. The main area displays a single document in JSON format:

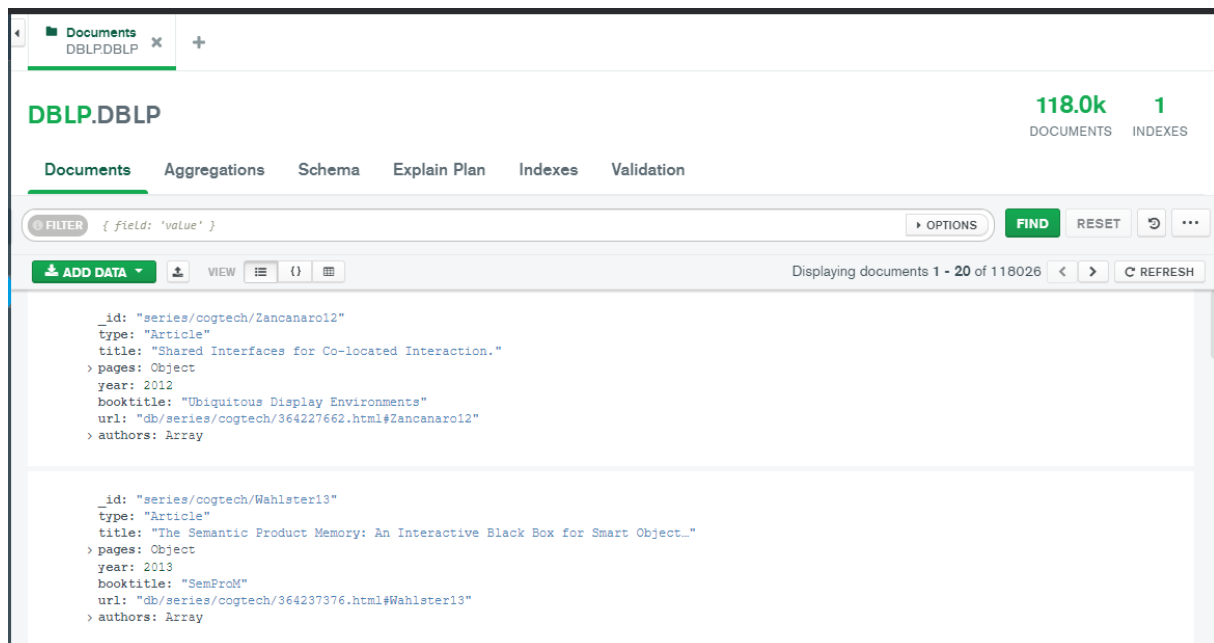
```
{  "_id": 3,  "Titre": "Les grands hommes",  "Réalisateur": "Raoul Walsh"}
```

# DBPL

Création db nommé DBLP :



Import des données :



# RECHERCHES - AGGREGATIONS DBLP

## 1. Les types « Book » :

The screenshot shows the DBLP DBLP interface. The top navigation bar includes 'Documents', 'Aggregations', 'Schema', 'Explain Plan', 'Indexes', and 'Validation'. The 'Documents' tab is selected. The search bar contains the query `{ "type": "book" }`. The results are displayed in a list format, showing the first three documents. Each document entry includes its ID, type, title, year, publisher, series, URL, and authors.

```
{ "_id": "series/cogtech/FurnkranzSL12",
  "type": "Book",
  "title": "Foundations of Rule Learning",
  "year": 2012,
  "pages": Object,
  "publisher": "Springer",
  "series": "Cognitive Technologies",
  "url": "http://dx.doi.org/10.1007/978-3-540-75197-7",
  "authors": Array,
  "isbn": Array
}
```

```
{ "_id": "series/cogtech/364227662",
  "type": "Book",
  "editor": "Tavi Moflik",
  "title": "Ubiquitous Display Environments",
  "year": 2012,
  "publisher": "Springer",
  "series": "Cognitive Technologies",
  "booktitle": "Ubiquitous Display Environments",
  "url": "db/series/cogtech/364227662.html",
  "authors": Array,
  "isbn": Array
}
```

```
{ "_id": "series/cogtech/Hugues14",
  "type": "Book",
  "title": "Language Processing with Perl and Prolog - Theories, Implementation, a...",
  "year": 2014,
  "pages": Object,
  "publisher": "Springer",
  "series": "Cognitive Technologies",
  "authors": Array,
  "isbn": Array
}
```

## 2. Publications depuis 2011

The screenshot shows the DBLP DBLP interface with a search for documents published since 2011. The search bar contains the query `{year : {$gte : 2011}}`. The results are displayed in a list format, showing the first four documents. Each document entry includes its ID, type, title, year, publisher, series, URL, and authors.

```
{ "_id": "series/cogtech/Zancanaro12",
  "type": "Article",
  "title": "Shared Interfaces for Co-located Interaction.",
  "pages": Object,
  "year": 2012,
  "booktitle": "Ubiquitous Display Environments",
  "url": "db/series/cogtech/364227662.html#Zancanaro12",
  "authors": Array
}
```

```
{ "_id": "series/cogtech/Wahlster13",
  "type": "Article",
  "title": "The Semantic Product Memory: An Interactive Black Box for Smart Object...",
  "pages": Object,
  "year": 2013,
  "booktitle": "SemProf",
  "url": "db/series/cogtech/364237376.html#Wahlster13",
  "authors": Array
}
```

```
{ "_id": "series/cogtech/Zimmer1011",
  "type": "Article",
  "title": "Visuo-spatial Working Memory as a Limited Resource of Cognitive Process...",
  "pages": Object,
  "year": 2011,
  "booktitle": "Resource-Adaptive Cognitive Processes",
  "url": "db/series/cogtech/354089408.html#Zimmer1011",
  "authors": Array
}
```

```
{ "_id": "series/cogtech/MayberryC11",
  "type": "Article",
  "title": "The Evolution of a Connectionist Model of Situated Human Language Unde...",
  "pages": Object,
  "year": 2011,
  "booktitle": "Resource-Adaptive Cognitive Processes",
  "url": "db/series/cogtech/354089408.html#MayberryC11",
  "authors": Array
}
```

### 3. Livre depuis 2014

The screenshot shows the DBLP.DBLP web interface. At the top, there's a navigation bar with 'Documents', 'Aggregations', 'Schema', 'Explain Plan', 'Indexes', and 'Validation'. The 'Documents' tab is active. On the right, it shows '118.0k' documents and '1' index. Below the navigation bar, there's a search bar with the filter: `{ "type" : "Book", year : { $gte : 2014 } }`. There are buttons for 'OPTIONS', 'FIND', 'RESET', and a refresh icon. Below the search bar, there's a toolbar with 'ADD DATA', 'VIEW', and icons for list, table, and grid views. The main content area displays three book entries, each with a JSON-like structure showing metadata like \_id, type, title, year, publisher, series, authors, and isbn.

```
{
  "_id": "series/cogtech/Hugues14",
  "type": "Book",
  "title": "Language Processing with Perl and Prolog - Theories, Implementation, a..."
  "year": 2014
  "pages": Object
  "publisher": "Springer"
  "series": "Cognitive Technologies"
  "authors": Array
  "isbn": Array
}
```

```
{
  "_id": "series/cacw/StrateteigW14",
  "type": "Book",
  "title": "Disentangling Participation - Power and Decision-making in Participato..."
  "year": 2014
  "pages": Object
  "publisher": "Springer"
  "series": "Computer Supported Cooperative Work"
  "authors": Array
  "isbn": Array
}
```

```
{
  "_id": "series/star/FerreiraD14",
  "type": "Book",
  "title": "Probabilistic Approaches to Robotic Perception."
  "year": 2014
  "pages": Object
  "publisher": "Springer"
  "series": "Springer Tracts in Advanced Robotics"
  "volume": "91"
  "url": "http://dx.doi.org/10.1007/978-3-319-02006-8"
  "authors": Array
  "isbn": Array
}
```

### 4. Auteur « Toru Ishiba »

The screenshot shows the DBLP.DBLP web interface with the same navigation bar as the previous screenshot. The search bar now has the filter: `{ authors : "Toru Ishiba" }`. The toolbar and document count (118.0k) are the same. The main content area displays four document entries, all of type 'Article', with metadata including \_id, type, title, year, booktitle, url, and authors.

```
{
  "_id": "series/cogtech/SuoS11",
  "type": "Article",
  "title": "Integrating Smart Classroom and Language Services."
  "pages": Object
  "year": 2011
  "booktitle": "The Language Grid"
  "url": "db/series/cogtech/364221177.html#SuoS11"
  "authors": Array
}
```

```
{
  "_id": "series/cogtech/MoritaI11",
  "type": "Article",
  "title": "Collaborative Translation Protocols."
  "pages": Object
  "year": 2011
  "booktitle": "The Language Grid"
  "url": "db/series/cogtech/364221177.html#MoritaI11"
  "authors": Array
}
```

```
{
  "_id": "series/cogtech/BramantoroS11",
  "type": "Article",
  "title": "Pipelining Software and Services for Language Processing."
  "pages": Object
  "year": 2011
  "booktitle": "The Language Grid"
  "url": "db/series/cogtech/364221177.html#BramantoroS11"
  "authors": Array
}
```

```
{
  "_id": "series/cogtech/ChoI11",
  "type": "Article",
  "title": "Exploring Cultural Differences in Pictogram Interpretations."
  "pages": Object
  "year": 2011
  "booktitle": "The Language Grid"
  "url": "db/series/cogtech/364221177.html#ChoI11"
  "authors": Array
}
```

### 5. Editeurs, distincts

`db.publis.distinct("publisher");`

### 6. Auteurs distincts

`db.publis.distinct("authors");`

## 7. Publications « Toru Ishida » par titre et par page de début

DBLP.DBLP 118.0k 1 DOCUMENTS INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Pipeline ▾ \$match \$sort Explain Export Run More Options ▶

Untitled - modified [SAVE](#) [+ CREATE NEW](#) [EXPORT TO LANGUAGE](#) [AUTO PREVIEW](#)

1 `{ authors : "Toru Ishida" }`

Output after \$match stage (Sample of 10 documents)

1 `{ booktitle : 1, "pages.start" : 1 }`

Output after \$sort stage (Sample of 10 documents)

## 8. Résultat sur le titre de la publication

DBLP.DBLP 118.0k 1 DOCUMENTS INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Pipeline ▾ \$match \$sort \$project Explain Export Run More Options ▶

Untitled - modified [SAVE](#) [+ CREATE NEW](#) [EXPORT TO LANGUAGE](#) [AUTO PREVIEW](#)

1 `{ authors : "Toru Ishida" }`

Output after \$match stage (Sample of 10 documents)

1 `{ booktitle : 1, "pages.start" : 1 }`

Output after \$sort stage (Sample of 10 documents)

1 `{ title : 1, pages : 1 }`

Output after \$project stage (Sample of 10 documents)

## 9. Compter le nombre de ses publications

Aggregations DBLP.DBLP

118.0k 1 DOCUMENTS INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Pipeline ▾ \$match \$group Explain Export Run More Options ▶

Untitled - modified [SAVE](#) [+ CREATE NEW](#) [EXPORT TO LANGUAGE](#) [AUTO PREVIEW](#)

aggregation pipeline stages. [Learn more](#)

1 {authors: 'Toru Ishida'}

Output after \$match stage (Sample of 10 documents)

1 { \_id: 'series/cogtech/SuoS111' type: 'Article' title: 'Integrating Smart Classroom and Language Services.' pages: Object year: 2011 booktitle: 'The Language Grid' url: 'db/series/cogtech/364221177.html#SuoS111' }

1 { \_id: 'series/cogtech/Morita111' type: 'Article' title: 'Collaborative Translation Protocols.' pages: Object year: 2011 booktitle: 'The Language Grid' url: 'db/series/cogtech/364221177.html#Morita111' }

1 { \_id: 'series/cogtech/BramantoroS111' type: 'Article' title: 'Pipelining Software and Services for Language Processing.' pages: Object year: 2011 booktitle: 'The Language Grid' url: 'db/series/cogtech/364221177.html#BramantoroS111' }

1 { \_id: 'series/cogtech/SuoS111' type: 'Article' title: 'Integrating Smart Classroom and Language Services.' pages: Object year: 2011 booktitle: 'The Language Grid' url: 'db/series/cogtech/364221177.html#SuoS111' }

1 { \_id: null, total: { \$sum: 1 } }

Output after \$group stage (Sample of 1 document)

1 { \_id: null total: 22 }

## 10. Compter le nombre de publications depuis 2011

Aggregations DBLP.DBLP

118.0k 1 DOCUMENTS INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Pipeline ▾ \$match \$group Explain Export Run More Options ▶

Untitled - modified [SAVE](#) [+ CREATE NEW](#) [EXPORT TO LANGUAGE](#) [AUTO PREVIEW](#)

aggregation pipeline stages. [Learn more](#)

1 {year: {\$gte: 2011}}

Output after \$match stage (Sample of 10 documents)

1 { \_id: 'series/cogtech/Zancanaro12' type: 'Article' title: 'Shared Interfaces for Co-located Interaction.' pages: Object year: 2012 booktitle: 'Ubiquitous Display Environments' }

1 { \_id: 'series/cogtech/Wahlster13' type: 'Article' title: 'The Semantic Product Memory: An Interactive Black Box for Smart Object.' pages: Object year: 2013 booktitle: 'SenProM' }

1 { \_id: 'series/cogtech/Zimmer111' type: 'Article' title: 'Virus-spatial Working Memory as a Limited Resource of Cognitive Process.' pages: Object year: 2011 booktitle: 'Resource-Adaptive Cognitive' }

1 { \_id: 'series/cogtech/SuoS111' type: 'Article' title: 'Integrating Smart Classroom and Language Services.' pages: Object year: 2011 booktitle: 'The Language Grid' url: 'db/series/cogtech/364221177.html#SuoS111' }

1 { \_id: 'series/cogtech/Morita111' type: 'Article' title: 'Collaborative Translation Protocols.' pages: Object year: 2011 booktitle: 'The Language Grid' url: 'db/series/cogtech/364221177.html#Morita111' }

1 { \_id: 'series/cogtech/BramantoroS111' type: 'Article' title: 'Pipelining Software and Services for Language Processing.' pages: Object year: 2011 booktitle: 'The Language Grid' url: 'db/series/cogtech/364221177.html#BramantoroS111' }

1 { \_id: 'series/cogtech/SuoS111' type: 'Article' title: 'Integrating Smart Classroom and Language Services.' pages: Object year: 2011 booktitle: 'The Language Grid' url: 'db/series/cogtech/364221177.html#SuoS111' }

1 { \_id: '\$type', total: { \$sum: 1 } }

Output after \$group stage (Sample of 3 documents)

1 { \_id: 'Article' total: 27206 }

1 { \_id: 'Book' total: 1742 }

1 { \_id: 'Phd' total: 551 }

## 11. Compter nombre de publications par auteurs

Aggregations  
DBLPDBLP

118.0k  
DOCUMENTS

1  
INDEXES

DocumentsAggregationsSchemaExplain PlanIndexesValidation

PipelineSunwind\$group\$sort

Untitled - modifiedSAVE+ CREATE NEWEXPORT TO LANGUAGE

AUTO PREVIEW

\$unwind

Output after \$unwind stage (Sample of 10 documents)

```
1 { "authors"
```

```
{_id: "series/cogtech/Zanconarol2"  
  type: "Article"  
  title: "Shared Interfaces for Co-located  
  Interaction."  
  pages: Object  
    year: 2012  
  booktitle: "Ubiquitous Display  
    Environments"  
}
```

```
{_id: "series/cogtech/Wahlster13"  
  type: "Article"  
  title: "The Semantic Product Memory: An  
  Interactive Black Box for Smart  
  Object."  
  pages: Object  
    year: 2013  
  booktitle: "SemProk"  
}
```

```
{_id: "series/cogtech/BertonKMS06"  
  type: "Article"  
  title: "Speech Recognition."  
  pages: Object  
    year: 2006  
  booktitle: "SmartRom"  
  url: "db/series/cogtech/54023732.html#Berton"  
  authors: "Andr? Berton"  
}
```

```
{_id: "seri:  
  type: "Art:  
  title: "Sp:  
  pages: Obj:  
  year: 2006  
  booktitle:  
  url: "db/se:  
  authors: "J
```

\$group

Output after \$group stage (Sample of 10 documents)

```
1 { "_id": "authors", number: { $sum: 1 } }
```

```
{_id: "Markus Weteler"  
  number: 1  
}
```

```
{_id: "Thomas C. Rakow"  
  number: 1  
}
```

```
{_id: "Maxiille Stoelings"  
  number: 3  
}
```

```
{_id: "Robe:  
  number: 1  
}
```

\$sort

Output after \$sort stage (Sample of 10 documents)

```
1 { number: -1 }
```

```
{_id: "Oscar Castillo"  
  number: 64  
}
```

```
{_id: "Gert-Jan de Vreede"  
  number: 82  
}
```

```
{_id: "Robert O. Briggs"  
  number: 81  
}
```

```
{_id: "Fabr:  
  number: 70  
}
```