

## Question 1 :

# Fichier de configuration logstash

```
input {
  file {
    # chemin d'accès
    path => "/home/fynn/script elasticsearch/elasticsearch/data/*"
    # curseur de lecture à supprimer pour relancer
    sincedb_path => "/dev/null"
    # Lecture depuis le début
    start_position => "beginning"
  }
}
filter {
  # on parse le fichier shows
  if "episodes" in [path] {
    csv {
      columns => [
        "episode_id","show_id","show_Title","code","season","episode","title","description","released_timestamp"
      ]
      skip_empty_rows => true
      separator => ","
    }
  }
  else if "shows" in [path] {
    csv {
      columns => [
        "show_id","title","description","seasons","episodes","follow_count","creation_year","genres","network"
      ]
      skip_empty_rows => true
      separator => ","
    }
  }
  mutate {
    remove_field => [ "message" ]
  }
}
output {
  # affichage sur la sortie standard
  if "episodes" in [path]
  {
    elasticsearch{
      hosts => "http://localhost:9200"
      index => "episodes"
    }
  }
  else if "shows" in [path]
  {
    elasticsearch{
      hosts => "http://localhost:9200"
      index => "shows"
    }
  }
}
}
```

Question 2.

shows/\_search?q=title:detective

shows/\_search?q=seasons:(>=3) AND title:detective

shows/\_search?q=title:batman AND -description:pingouin

shows/\_search?q=description:alien OR description:robot AND genres:Comedy and creation\_year:[1990 TO 1999]

```
{
  "query": {
    "match": {
      "title": "detective"
    }
  }
}

{
  "query": {
    "bool": {
      "must": [
        {"match": {"title": "detective"}},
        {"range": {"seasons": {"gte": 3}}}
      ]
    }
  }
}

{
  "query": {
    "bool": {
      "must": [
        {"match": {"title": "batman"}}
      ],
      "must_not": [
        {"match": {"description": "pingouin"}}
      ]
    }
  }
}

{
  "query": {
    "bool": {
      "must": [
        {"match": {"genres": "Comedy"}},
        {"range": {"creation_year": {"gte": 1990}}},
        {"range": {"creation_year": {"lte": 1999}}},
        {"match": {"description": "alien robot"}}
      ]
    }
  }
}

{
  "query": {
    "bool": {
      "must": [
        {"match": {"title": "Star Trek"}}
      ]
    }
  },
  "sort": [
    {"episodes": {"order": "desc"}}
  ]
}
```

Question 3.

```
{
  "_settings":{
    "number_of_shards":4,
    "number_of_replicas":1
  },
  "mappings":{
    "doc":{
      "properties":{
        "show_id":{
          "type":"integer"
        },
        "title":{
          "type":"text",
          "analyzer":"french",
          "fields":{
            "english":{
              "type":"text",
              "analyzer":"english"
            }
          }
        },
        "description":{
          "type":"text",
          "analyzer":"french",
          "fields":{
            "english":{
              "type":"text",
              "analyzer":"english"
            }
          }
        },
        "seasons":{
          "type":"integer"
        },
        "episodes":{
          "type":"integer"
        },
        "follow_count":{
          "type":"integer"
        },
        "creation_year":{
          "type":"date",
          "format":"epoch_second"
        },
        "genres":{
          "type":"text",
          "analyzer":"french",
          "fields":{
            "analyzed":{
              "type":"text",
              "fielddata": true,
              "analyzer":"simple"
            }
          }
        },
        "network":{
          "type":"keyword"
        }
      }
    }
  }
}
```

```
{  
  "source":{  
    "index":"shows"  
  },  
  "dest" : {  
    "index":"shows-v2"  
  }  
}
```

```
{  
  "source":{  
    "index":"episodes"  
  },  
  "dest" : {  
    "index":"episodes-v2"  
  }  
}
```

Question 4.

```
{  
  "aggs":[  
    {"avg_season": {"avg":{"field":"seasons"}}},  
    {"avg_follower": {"avg":{"field":"follow_count"}}}  
  ]  
}
```