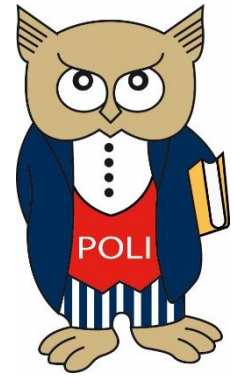




ESCUELA POLITÉCNICA NACIONAL
ESCUELA DE FORMACIÓN DE TECNÓLOGOS
DESARROLLO DE SOFTWARE
ANÁLISIS DE DATOS



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DEBER

Conexión MongoDB compass – Mongo DB (cluster)

The screenshot displays the MongoDB Compass web interface. The top navigation bar includes 'Connect', 'View', and 'Help'. The left sidebar shows the 'Local' connection profile with '4 DBS' and '10 COLLECTIONS'. The main panel is titled 'Databases' and features a 'CREATE DATABASE' button. Below this is a table listing the databases in the cluster:

Database Name	Storage Size	Collections	Indexes
Ejemplo	20.5KB	1	1
admin	0.0B	0	0
clasemongodb	0.0B	0	0
local	0.0B	9	0

Below the table, there are buttons for 'Cluster0', 'Connect', 'View Monitoring', and 'Browse Collections'. The bottom section shows performance metrics for the cluster, including read/write operations, connections, and data size, each with a corresponding line graph for the last 4 hours.

The screenshot shows the MongoDB Atlas web interface. The top navigation bar includes 'Atlas', 'Realm', and 'Charts'. Below this, there are tabs for 'Overview', 'Real time', 'Metrics', 'Collections', 'Search', 'Promote', 'Performance Advisor', and 'Online Archive'. The main header indicates 'DATABASES: 2' and 'COLLECTIONS: 2'. On the left sidebar, there's a '+ Create Database' button and a 'NAMESPACES' section with a search bar. Under 'NAMESPACES', 'Ejemplo' is expanded, showing 'clasemongodb' and 'listas'. The main content area displays 'clasemongodb' with 'DATABASE SIZE: 1.6KB', 'INDEX SIZE: 20KB', and 'TOTAL COLLECTIONS: 1'. A 'CREATE COLLECTION' button is visible. Below this, a table lists collections:

Collection Name	Documents	Documents Size	Documents Avg	Indexes	Index Size	Index Avg
<u>listas</u>	10	1.6KB	164B	1	20KB	20KB

Below the table, there's a 'Find' tab selected, showing 'COLLECTION SIZE: 1.6KB', 'TOTAL DOCUMENTS: 10', and 'INDEXES TOTAL SIZE: 20KB'. There are buttons for 'Find', 'Indexes', 'Schema Anti-Patterns', 'Aggregation', and 'Search Indexes'. An 'INSERT DOCUMENT' button is also present. A filter bar shows '{ field: 'value' }' with 'OPTIONS', 'Apply', and 'Reset' buttons. The 'QUERY RESULTS 1-10 OF 10' section displays a single document:

```
{
  "_id": ObjectId("61e8b2e1f26822fe6b7bcd2f"),
  "Nombres_Completo": Array,
  "Apellidos_Completo": Array,
  "Edad": Array,
  "Cedula": 3848413509
}
```

Importamos mongo Cliente

```
In [4]: from pymongo import MongoClient
        from pymongo.errors import ConnectionFailure

        client = MongoClient('mongodb+srv://kevinpinan:maggy1234@cluster0.bqoij.mongodb.net/test')
        #db.create_collection("clasemongodb")
        db = client["clasemongodb"]
```

Declaramos la lista

```
db = client["clasemongodb"]

listas = db.listas
```

Generamos la lista con 10 elementos

```
print("LISTADO DE CIUDADANOS")
nombres=["Luis","Miguel","Kevin","Dustin","Paula","Steven","Paul","Jorge","Ricardo","Eduardo"]
apellidos=["Muza","Chavez","Pinanjota","Perez","Zambrano","Zaldumbide","Guaniuna","Espinoza","Escobar","Monteros"]
```

Se crea un ciclo for para ingresar n ciudadanos que se ingresa por el usuario

```
k=int(input("INGRESE N CIUDADANOS"))

for i in range(k):
    a = np.random.randint(low=1, high=1000000009, size=1).tolist()

    edad = np.random.randint(low=18, high=80, size=1).tolist()

    nom_C=[]
    ape_C=[]

    for i in range (2):
        n=np.random.randint(0,9)
        nom_C.append(nombres[n])

    print(nom_C)

    for i in range (2):
        n=np.random.randint(0,9)
        ape_C.append(apellidos[n])

    print(ape_C)
    print(edad)

    p=a[0]*9
    print(p)

    print("-----")

    script=[{'Nombres_Completos':nom_C,'Apellidos_Completos':ape_C,'Edad':edad,'Cedula':p}]

    listas.insert_many(script)
```

Las listas agregamos a una variable para convertir en una sola lista y enviarla al Cliente MONGO DB

```
print("-----")

script=[{'Nombres_Completos':nom_C,'Apellidos_Completos':ape_C,'Edad':edad,'Cedula':p}]

listas.insert_many(script)
```

Crearemos la función para mostrar

```
script=[{'Nombres_Completos':nom_C,'Apellidos_Completos':ape_C,'Edad':edad,'Cedula':p}]

listas.insert_many(script)

print("*****")
print("Crear una función que muestre los elementos ingresados en la base de datos.")
cursor = db.listas.find({})
for doc in cursor:
    print(doc)
```

RESULTADO

1)

```
listas.insert_many(script)

LISTADO DE CIUDADANOS
INGRESE N CIUDADANOS10
['Paula', 'Kevin']
['Escobar', 'Guaniana']
[64]
3848413509
-----
['Luis', 'Dustin']
['Zaldumbide', 'Chavez']
[69]
1249861599
-----
['Ricardo', 'Luis']
['Espinoza', 'Chavez']
[59]
8847096237
-----
['Paul', 'Paul']
['Escobar', 'Zambrano']
[60]
4034174931
```

In []:

In []:

2)

```
print(doc)

*****
Crear una función que muestre los elementos ingresados en la base de datos.
{'_id': ObjectId('61e8b2e1f26822fe6b7bcd2f'), 'Nombres_Completos': ['Paula', 'Kevin'], 'Apellidos_Completos': ['Escobar', 'Guaniana'], 'Edad': [64], 'Cedula': 3848413509}
{'_id': ObjectId('61e8b2e2f26822fe6b7bcd30'), 'Nombres_Completos': ['Luis', 'Dustin'], 'Apellidos_Completos': ['Zaldumbide', 'Chavez'], 'Edad': [69], 'Cedula': 1249861599}
{'_id': ObjectId('61e8b2e2f26822fe6b7bcd31'), 'Nombres_Completos': ['Ricardo', 'Luis'], 'Apellidos_Completos': ['Espinoza', 'Chavez'], 'Edad': [59], 'Cedula': 8847096237}
{'_id': ObjectId('61e8b2e2f26822fe6b7bcd32'), 'Nombres_Completos': ['Paul', 'Paul'], 'Apellidos_Completos': ['Escobar', 'Zambrano'], 'Edad': [32], 'Cedula': 1339912989}
{'_id': ObjectId('61e8b2e2f26822fe6b7bcd33'), 'Nombres_Completos': ['Dustin', 'Luis'], 'Apellidos_Completos': ['Espinoza', 'Espinoza'], 'Edad': [30], 'Cedula': 4302754650}
{'_id': ObjectId('61e8b2e3f26822fe6b7bcd34'), 'Nombres_Completos': ['Kevin', 'Paula'], 'Apellidos_Completos': ['Zambrano', 'Escobar'], 'Edad': [60], 'Cedula': 4034174931}
{'_id': ObjectId('61e8b2e3f26822fe6b7bcd35'), 'Nombres_Completos': ['Dustin', 'Dustin'], 'Apellidos_Completos': ['Escobar', 'Espinoza'], 'Edad': [72], 'Cedula': 132798942}
{'_id': ObjectId('61e8b2e3f26822fe6b7bcd36'), 'Nombres_Completos': ['Kevin', 'Jorge'], 'Apellidos_Completos': ['Guaniana', 'Zaldumbide'], 'Edad': [46], 'Cedula': 8056810971}
{'_id': ObjectId('61e8b2e3f26822fe6b7bcd37'), 'Nombres_Completos': ['Kevin', 'Steven'], 'Apellidos_Completos': ['Muñoz', 'Zambrano']}
```

In []: