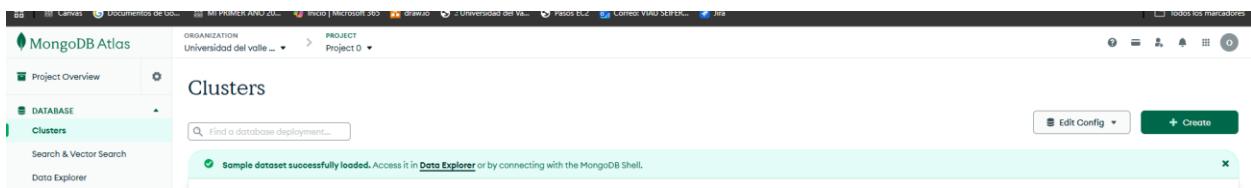


GITHUB: https://github.com/OliRem/Lab03_BD2



The screenshot shows the MongoDB Atlas interface. On the left, there's a sidebar with 'Project Overview' and 'DATABASE Clusters'. The main area is titled 'Clusters' and contains a search bar with 'Find a database deployment...'. A green success message at the bottom says 'Sample dataset successfully loaded. Access it in Data Explorer or by connecting with the MongoDB Shell.' There are 'Edit Config' and 'Create' buttons.

PS C:\Users\olivi\OneDrive\Desktop\2026\Semestre 7\base de gatos\lab03> node index.js

[dotenv@17.3.1] injecting env (1) from .env -- tip: 🔒 prevent building .env in docker:
<https://dotenvx.com/prebuild>

2.1 Total de transacciones y monto promedio por cliente:

```
[  
{  
  "nombre": "John Williams",  
  "total_transacciones": 443,  
  "monto_promedio": 4985.15,  
  "ciudad": null  
},  
 {  
  "nombre": "Phillip Obrien",  
  "total_transacciones": 421,  
  "monto_promedio": 4962.69,  

```

```
"monto_promedio": 4888.57,  
"ciudad": "DC 15272"  
,  
{  
    "nombre": "Aaron Perez",  
    "total_transacciones": 404,  
    "monto_promedio": 5152.12,  
    "ciudad": "MS 55765"  
,  
{  
    "nombre": "Stacey Mccall",  
    "total_transacciones": 403,  
    "monto_promedio": 4827.92,  
    "ciudad": "MO 06535"  
}  
]
```

2.2 Clasificación de clientes por balance total:

```
[  
{  
    "nombre": "Aaron Perez",  
    "categoria": "Alto (>20,000)"  
,  
{  
    "nombre": "Adam Anderson",  
    "categoria": "Alto (>20,000)"
```

```
},
{
  "nombre": "Adam Miller",
  "categoria": "Medio (5,000-20,000)"
},
{
  "nombre": "Adam Serrano",
  "categoria": "Medio (5,000-20,000)"
},
{
  "nombre": "Adrienne Obrien",
  "categoria": "Medio (5,000-20,000)"
}
]
```

2.3 Cliente con mayor balance por ciudad:

```
[
{
  "nombre": "Michael Martinez",
  "ciudad": null,
  "total": 60000
},
{
  "nombre": "Stephen Nelson",
  "ciudad": "AK 28435",
  "total": 60000
}
```

```
},
{
  "nombre": "Thomas Pratt MD",
  "ciudad": "AK 33215",
  "total": 60000
},
{
  "nombre": "Jaime Downs",
  "ciudad": "AK 36686",
  "total": 20000
},
{
  "nombre": "Matthew Zuniga",
  "ciudad": "AK 36907",
  "total": 40000
}
]
```

2.4 Top 10 transacciones más altas (últimos 6 meses):

```
[
{
  "monto": 9999,
  "fecha": "2014-07-29T00:00:00.000Z",
  "tipo": "buy",
  "simbolo": "fb",
  "cuenta": 139582,
```

```
"cliente_nombre": "Christopher Mercado",
"cliente_ciudad": "DC 74853",
"cliente_email": "brianpowell@yahoo.com"
},
{
"monto": 9999,
"fecha": "2016-02-29T00:00:00.000Z",
"tipo": "sell",
"simbolo": "fb",
"cuenta": 652071,
"cliente_nombre": "Sandra Davila",
"cliente_ciudad": "MD 39549",
"cliente_email": "rgraham@hotmail.com"
},
{
"monto": 9999,
"fecha": "2008-12-18T00:00:00.000Z",
"tipo": "buy",
"simbolo": "amd",
"cuenta": 655073,
"cliente_nombre": "Felicia Perez",
"cliente_ciudad": "CO 47513",
"cliente_email": "xperez@yahoo.com"
},
{
"monto": 9999,
```

```
"fecha": "2003-07-18T00:00:00.000Z",
"tipo": "buy",
"simbolo": "adbe",
"cuenta": 394038,
"cliente_nombre": "David Warren",
"cliente_ciudad": "KY 50212",
"cliente_email": "jennifer49@gmail.com"

},

{
"monto": 9999,
"fecha": "2013-10-09T00:00:00.000Z",
"tipo": "buy",
"simbolo": "znga",
"cuenta": 588722,
"cliente_nombre": "Andrea Mcmillan",
"cliente_ciudad": "WA 61045",
"cliente_email": "andrewlowe@yahoo.com"

},

{
"monto": 9999,
"fecha": "2016-10-28T00:00:00.000Z",
"tipo": "buy",
"simbolo": "fb",
"cuenta": 107787,
"cliente_nombre": "Annette Watts",
"cliente_ciudad": "IN 96979",
```

```
"cliente_email": "meganwilliams@hotmail.com"
},
{
  "monto": 9999,
  "fecha": "1990-05-01T00:00:00.000Z",
  "tipo": "sell",
  "simbolo": "amd",
  "cuenta": 412013,
  "cliente_nombre": "Megan Tanner",
  "cliente_ciudad": "OK 38895",
  "cliente_email": "jamesgregory@gmail.com"
},
{
  "monto": 9999,
  "fecha": "1996-09-30T00:00:00.000Z",
  "tipo": "sell",
  "simbolo": "adbe",
  "cuenta": 177869,
  "cliente_nombre": "Summer Cunningham",
  "cliente_ciudad": "ID 14820",
  "cliente_email": "patriciasmith@hotmail.com"
},
{
  "monto": 9999,
  "fecha": "1998-10-08T00:00:00.000Z",
  "tipo": "buy",
```

```

    "simbolo": "ibm",
    "cuenta": 133274,
    "cliente_nombre": "Justin Crawford",
    "cliente_ciudad": "NJ 80924",
    "cliente_email": "emurray@hotmail.com"
},
{
    "monto": 9999,
    "fecha": "2016-02-25T00:00:00.000Z",
    "tipo": "buy",
    "simbolo": "team",
    "cuenta": 90117,
    "cliente_nombre": "Matthew Jones",
    "cliente_ciudad": "NV 27455",
    "cliente_email": "douglaschavez@hotmail.com"
}
]

```

2.5 Variación porcentual:

```

[
{
    "nombre": "Angela Jones",
    "variacion_porcentual": 18407.41,
    "monto_antiguo": 54,
    "monto_reciente": 9994
},

```

```
{  
    "nombre": "Paul Rogers",  
    "variacion_porcentual": 13842.86,  
    "monto_antiguo": 63,  
    "monto_reciente": 8784  
},  
{  
    "nombre": "Michael Gomez",  
    "variacion_porcentual": 12042.68,  
    "monto_antiguo": 82,  
    "monto_reciente": 9957  
},  
{  
    "nombre": "Brianna Turner",  
    "variacion_porcentual": 7035.51,  
    "monto_antiguo": 138,  
    "monto_reciente": 9847  
},  
{  
    "nombre": "Michael Morgan",  
    "variacion_porcentual": 4269.54,  
    "monto_antiguo": 174,  
    "monto_reciente": 7603  
}  
]
```

2.6 Transacciones por mes y tipo:

```
[  
 {  
   "total_transacciones": 113,  
   "mes": 1,  
   "año": 2017,  
   "tipo": "buy",  
   "monto_total": 586960,  
   "monto_promedio": 5194.34  
 },  
 {  
   "total_transacciones": 120,  
   "mes": 1,  
   "año": 2017,  
   "tipo": "sell",  
   "monto_total": 568036,  
   "monto_promedio": 4733.63  
 },  
 {  
   "total_transacciones": 603,  
   "mes": 12,  
   "año": 2016,  
   "tipo": "buy",  
   "monto_total": 2970281,  
   "monto_promedio": 4925.84  
 },
```

```
{  
    "total_transacciones": 587,  
    "mes": 12,  
    "año": 2016,  
    "tipo": "sell",  
    "monto_total": 2865080,  
    "monto_promedio": 4880.89  
},  
{  
    "total_transacciones": 614,  
    "mes": 11,  
    "año": 2016,  
    "tipo": "buy",  
    "monto_total": 3095246,  
    "monto_promedio": 5041.12  
},  
{  
    "total_transacciones": 557,  
    "mes": 11,  
    "año": 2016,  
    "tipo": "sell",  
    "monto_total": 2674371,  
    "monto_promedio": 4801.38  
},  
{  
    "total_transacciones": 615,
```

```
"mes": 10,  
"año": 2016,  
"tipo": "buy",  
"monto_total": 3058819,  
"monto_promedio": 4973.69  
},  
{  
    "total_transacciones": 578,  
    "mes": 10,  
    "año": 2016,  
    "tipo": "sell",  
    "monto_total": 2876399,  
    "monto_promedio": 4976.47  
},  
{  
    "total_transacciones": 596,  
    "mes": 9,  
    "año": 2016,  
    "tipo": "buy",  
    "monto_total": 2889147,  
    "monto_promedio": 4847.56  
},  
{  
    "total_transacciones": 609,  
    "mes": 9,  
    "año": 2016,
```

```
    "tipo": "sell",
    "monto_total": 3079205,
    "monto_promedio": 5056.17
}
]
```

2.7 Clientes sin transacciones

No se encontraron clientes inactivos

Muestra de clientes inactivos: []

2.8 Resumen por tipo de cuenta (guardado en account_summaries):

Resumen guardado en account_summaries

```
[
{
  "total_cuentas": 742,
  "balance_total": 7380000,
  "tipo_cuenta": "CurrencyService",
  "balance_promedio": 9946.09,
  "_id": "69961afd9058a97aeb1829e5",
},
{
  "total_cuentas": 706,
  "balance_total": 7026000,
  "tipo_cuenta": "Derivatives",
  "balance_promedio": 9951.84,
  "_id": "69961afd9058a97aeb1829e6"
}
```

```
},
{
  "total_cuentas": 1746,
  "balance_total": 17383000,
  "tipo_cuenta": "InvestmentStock",
  "balance_promedio": 9955.9,
  "_id": "69961afd9058a97aeb1829e7"
},
{
  "total_cuentas": 728,
  "balance_total": 7245000,
  "tipo_cuenta": "InvestmentFund",
  "balance_promedio": 9951.92,
  "_id": "69961afd9058a97aeb1829e8"
},
{
  "total_cuentas": 720,
  "balance_total": 7174000,
  "tipo_cuenta": "Commodity",
  "balance_promedio": 9963.89,
  "_id": "69961afd9058a97aeb1829e9"
},
{
  "total_cuentas": 741,
  "balance_total": 7381000,
  "tipo_cuenta": "Brokerage",
```

```
        "balance_promedio": 9960.86,  
        "_id": "69961afd9058a97aeb1829ea"  
    }  
]
```

2.9 Clientes de alto valor:

No hay clientes de alto valor :c
[]

2.10 Promedio mensual y clasificación de clientes:

```
[  
    {  
        "nombre": "Vincent Rose",  
        "promedio_mensual": 7.9,  
        "categoria": "frequent"  
    },  
    {  
        "nombre": "Jeffrey Reeves",  
        "promedio_mensual": 7.8,  
        "categoria": "frequent"  
    },  
    {  
        "nombre": "Samuel Perry",  
        "promedio_mensual": 7.8,  
        "categoria": "frequent"  
    },  
]
```

```
{  
  "nombre": "Edward Owen",  
  "promedio_mensual": 7.8,  
  "categoria": "frequent"  
,  
{  
  "nombre": "Kenneth Green",  
  "promedio_mensual": 7.7,  
  "categoria": "frequent"  
,  
{  
  "nombre": "Robert Burns",  
  "promedio_mensual": 7.6,  
  "categoria": "frequent"  
,  
{  
  "nombre": "Scott Fisher",  
  "promedio_mensual": 7.5,  
  "categoria": "frequent"  
,  
{  
  "nombre": "Ashley Lindsey",  
  "promedio_mensual": 7,  
  "categoria": "frequent"  
,  
{
```

```
        "nombre": "Alvin Larson",
        "promedio_mensual": 6.8,
        "categoria": "frequent"
    },
    {
        "nombre": "Richard Benson",
        "promedio_mensual": 6.3,
        "categoria": "frequent"
    }
]
```

ENDING