⑂ On branch **default**

[1] `LOAD DATASET EmployeeDebtChicago AS csv FROM Employee_Indebtedness_to_the_City_of_Chicago_20231109.csv @ artifact file 34`

☰   👁   Console ▾   Timing   Datasets ▾   Charts ▾   🔗

employeedebtchicago (20593 rows) 📥   Views   ⤢   ᐧ�晦

	Date (string)	Department_or_Agency_Name (string)	ARMS_Department_ID (string)	Total_of_Employees (short)	_of_Employees_with_Debt (short)	_Employees_
0	06/04/22	ADMINISTRATIVE HEARING	AHMS	35	0	0
1	06/04/22	COMM ANIMAL CARE AND CONTROL	ANIMAL	61	1	1.600000023
2	06/04/22	AVIATION	AVIATION		⑦ 39	2.099999904(
3	06/04/22	BUS AFFAIRS AND CONSUMER PROT	BACP	168	2	1.200000047(
4	06/04/22	BUILDINGS	BUILDINGS	233	2	0.899999976
5	06/04/22	CULTURAL AFFAIRS	CA	60	0	0
6	06/04/22	CHICAGO BOARD OF EDUCATION	CBOE		⑦	⑦ 7
7	06/04/22	CITY COLLEGES OF CHICAGO	CCC		237	5.300000190:
8	06/04/22	CCPSA	CCPSA	1	0	0
9	06/04/22	FIRE DEPARTMENT	CFD		⑦ 96	2
10	06/04/22	CHICAGO HOUSING AUTHORITY	CHA	526	6	1.100000023i
11	06/04/22	CITY CLERK	CLERK	78	2	2.599999904(
12	06/04/22	DEPARTMENT OF PLANNING AND DEV	COMM_DEVEL	147	1	0.699999988(
13	06/04/22	CIVILIAN OFFICE OF POLICE ACCOUNTABILITY	COPA	121	2	1.700000047(
14	06/04/22	CITY COUNCIL	COUNCIL	351	18	5.099999904(
15	06/04/22	CHICAGO PARK DISTRICT	CPDT		⑦ 105	4.099999904(
16	06/04/22	CHICAGO PUBLIC LIBRARY	CPL		⑦ 4	0.400000005!
17	06/04/22	CHICAGO TRANSIT AUTHORITY	CTA		⑦	⑦ 23.20000076:
18	06/04/22	DAIS	DAIS	948	7	0.699999988(
19	06/04/22	BOARD OF ELECTION COMMISSIONER	ELECTIONS	108	3	2.799999952:

RENAME COLUMN

RENAME COLUMN

[4]
```
SELECT * FROM employeedebtchicago
WHERE Date IS NULL OR Date = '';
```

☰   👁   Console ▾   Timing   Datasets ▾   Charts ▾   🔗

temporary_dataset (0 rows) 📥   Views   ⤢   ᐧ�晦

Date (string)	Department_or_Agency_Name (string)	ARMS_Department_ID (string)	Total_of_Employees (short)	NumDebtEmployees (short)	PercentDebtEmployee (float

[5]
```
SELECT * FROM employeedebtchicago
WHERE ARMS_Department_ID IS NULL OR ARMS_Department_ID = '';
```

☰   👁   Console ▾   Timing   Datasets ▾   Charts ▾   🔗

temporary_dataset (1479 rows) 📥   Views   ⤢   ᐧᛒ

	Date (string)	Department_or_Agency_Name (string)	ARMS_Department_ID (string)	Total_of_Employees (short)	NumDebtEmployees (short)	PercentDebtEmployee
0	10/14/2011	Administrative Hearings		39	2	5.099999904632568
1	10/14/2011	Animal Care & Control		68	3	4.400000095367432
2	10/14/2011	Aviation		⑦ 54		4.300000190734863
3	10/14/2011	Board of Elections		112	5	4.5

5	10/14/2011	Budget & Management	50	1	2
6	10/14/2011	Buildings	283	4	1.399999976158142
7	10/14/2011	Business Affairs & Consumer Protection	183	7	3.799999952316284
8	10/14/2011	Chicago Board of Education		⊘	⊘ 5.800000190734863
9	10/14/2011	Chicago Housing Authority	467	25	5.400000095367432
10	10/14/2011	Chicago Park District		⊘ 422	6.599999904632568
11	10/14/2011	Chicago Public Library		⊘ 30	2.9000000953674316
12	10/14/2011	Chicago Transit Authority		⊘	⊘ 19
13	10/14/2011	City Clerk	98	3	3.0999999046325684
14	10/14/2011	City Colleges of Chicago		⊘ 50	2.700000047683716
15	10/14/2011	City Council	425	33	7.800000190734863
16	10/14/2011	City Treasurer	22	0	0
17	10/14/2011	Compliance	23	0	0
18	10/14/2011	Cultural Affairs & Special Events	48	0	0
19	10/14/2011	Emergency Management & Communications		⊘ 90	6.800000190734863

[6]

```
SELECT * FROM employeedebtchicago
WHERE Total_of_Employees IS NULL OR Total_of_Employees = '' OR NumDebtEmployees IS NULL OR NumDebtEmployees = '' ;
```

🚫 | Console ▾   Timing   Datasets ▾   Charts ▾   🔗

temporary_dataset (**6144** rows) 📥   Views ⤢ 📊

	Date (string)	Department_or_Agency_Name (string)	ARMS_Department_ID (string)	Total_of_Employees (short)	NumDebtEmployees (short)	PercentDebtEmployee (fl)
0	06/04/22	AVIATION	AVIATION	⊘	39	2.0999999046325684
1	06/04/22	CHICAGO BOARD OF EDUCATION	CBOE	⊘	⊘ 7	
2	06/04/22	CITY COLLEGES OF CHICAGO	CCC	⊘	237	5.300000190734863
3	06/04/22	FIRE DEPARTMENT	CFD	⊘	96	2
4	06/04/22	CHICAGO PARK DISTRICT	CPDT	⊘	105	4.099999904632568
5	06/04/22	CHICAGO PUBLIC LIBRARY	CPL	⊘	4	0.4000000059604645
6	06/04/22	CHICAGO TRANSIT AUTHORITY	CTA	⊘	⊘	23.200000762939453
7	06/04/22	POLICE	POLICE	⊘	382	3.0999999046325684
8	06/04/22	STREETS AND SANITATION	STREETSAN	⊘	31	1.600000023841858
9	06/04/22	TRANSPORTATION	TRANS	⊘	13	1.100000023841858
10	06/04/22	WATER MANAGEMENT	WATER	⊘	30	1.600000023841858
11	06/11/22	AVIATION	AVIATION	⊘	30	2
12	06/11/22	CHICAGO BOARD OF EDUCATION	CBOE	⊘	⊘	6.199999809265137
13	06/11/22	CITY COLLEGES OF CHICAGO	CCC	⊘	195	4.400000095367432
14	06/11/22	FIRE DEPARTMENT	CFD	⊘	76	1.600000023841858
15	06/11/22	CHICAGO PARK DISTRICT	CPDT	⊘	100	3.700000047683716
16	06/11/22	CHICAGO TRANSIT AUTHORITY	CTA	⊘	⊘	21.399999618530273
17	06/11/22	POLICE	POLICE	⊘	323	2.5999999046325684
18	06/11/22	STREETS AND SANITATION	STREETSAN	⊘	40	2.200000047683716
19	06/11/22	TRANSPORTATION	TRANS	⊘	24	2

[7]

```
SELECT Department_or_Agency_Name, SUM(Total_Amount_Due) as total_debt
FROM employeedebtchicago GROUP BY Department_or_Agency_Name;
```

🚫 | Console ▾   Timing   Datasets ▾   Charts ▾   🔗

temporary_dataset (**100** rows) 📥   Views ⤢ 📊

1	HOUSING	21374.600000000013
2	Family & Support Services	4377.03
3	Fire Department	
4	Administrative Hearings	4484.65
5	COMMISSION ON HUMAN RELATIONS	6532.400000000001
6	Chicago Public Library	3253.7799999999997
7	Office of the Mayor	4956.44
8	FIRE DEPARTMENT	
9	Library	1580.0200000000002
10	OFFICE OF EMERGENCY MGMT & COM	
11	Streets and Sanitation	
12	Board of Ethics	296.91999999999996
13	Mayor's Office for People with Disabilities	1961.2
14	CHICAGO BOARD OF EDUCATION	
15	Chicago Transit Authority	
16	Administratiave Hearings	1333.03
17	PROCUREMENT SERV	31685.799999999996
18	Human Relations	1437.4199999999998
19	Emergency Management & Communications	

[8]

```
SELECT * FROM employeedebtchicago
```

🚫   Console ▾   Timing   Datasets ▾   Charts ▾   🔗

temporary_dataset (**20593** rows) 📥   Views

	Date (string)	Department_or_Agency_Name (string)	ARMS_Department_ID (string)	Total_of_Employees (short)	NumDebtEmployees (short)	PercentDebtEmpl
0	06/04/22	ADMINISTRATIVE HEARING	AHMS	35	0	0
1	06/04/22	COMM ANIMAL CARE AND CONTROL	ANIMAL	61	1	1.60000002384185
2	06/04/22	AVIATION	AVIATION		⦵ 39	2.09999990463256
3	06/04/22	BUS AFFAIRS AND CONSUMER PROT	BACP	168	2	1.20000004768371
4	06/04/22	BUILDINGS	BUILDINGS	233	2	0.89999997615814:
5	06/04/22	CULTURAL AFFAIRS	CA	60	0	0
6	06/04/22	CHICAGO BOARD OF EDUCATION	CBOE		⦵	⦵ 7
7	06/04/22	CITY COLLEGES OF CHICAGO	CCC		⦵ 237	5.30000019073486:
8	06/04/22	CCPSA	CCPSA	1	0	0
9	06/04/22	FIRE DEPARTMENT	CFD		⦵ 96	2
10	06/04/22	CHICAGO HOUSING AUTHORITY	CHA	526	6	1.10000002384185
11	06/04/22	CITY CLERK	CLERK	78	2	2.59999990463256
12	06/04/22	DEPARTMENT OF PLANNING AND DEV	COMM_DEVEL	147	1	0.69999998807907
13	06/04/22	CIVILIAN OFFICE OF POLICE ACCOUNTABILITY	COPA	121	2	1.70000004768371
14	06/04/22	CITY COUNCIL	COUNCIL	351	18	5.09999990463256
15	06/04/22	CHICAGO PARK DISTRICT	CPDT		⦵ 105	4.09999990463256
16	06/04/22	CHICAGO PUBLIC LIBRARY	CPL		⦵ 4	0.40000000596046
17	06/04/22	CHICAGO TRANSIT AUTHORITY	CTA		⦵	⦵ 23.2000007629394
18	06/04/22	DAIS	DAIS	948	7	0.69999998807907
19	06/04/22	BOARD OF ELECTION COMMISSIONER	ELECTIONS	108	3	2.79999995231628:

[9]   `SELECT [6], [5], avg([2]) AS  FROM employeedebtchicago GROUP BY [6], [5] INTO Aggregate1`

🚫   Console ▾   Timing   Datasets ▾   Charts ▾   🔗

aggregate1 (**10184** rows) 📥   Views

	2,33,432.78	0.0000001013794102
1	16,562.30	4.099999904632568
2	1,126.50	6.199999809265137
3	9,990.00	6.5
4	97,892.52	2.0999999046325684
5	5,016.86	0.6000000238418579
6	20,044.27	0.800000011920929
7	520.62	0.8999999761581421
8	41,074.63	2.200000047683716
9	1,459.00	0.20000000298023224
10	2,509.97	0.30000001192092896
11	1,000.00	0.800000011920929
12	10,15,121.67	3.200000047683716
13	14,006.15	2.9000000953674316
14	2,115.19	0.30000001192092896
15	25,704.05	2.4000000953674316
16	70,693.50	3.0999999046325684
17	8,910.50	1.2999999523162842
18	18,555.15	3.4000000953674316
19	50,454.71	5.199999809265137

[10]   `CREATE LENS ON employeedebtchicago IMPUTE MISSING VALUES ON COLUMN 3, COLUMN 5`

≡   👁 Console ▼   Timing   Datasets ▼   Charts ▼   🔗

Created Impute Missing Values Lens on employeedebtchicago

[11]

≡   `SELECT * FROM employeedebtchicago;`

👁 Console ▼   Timing   Datasets ▼   Charts ▼   🔗

temporary_dataset (**20593** rows) 📥   Views

	Date (string)	Department_or_Agency_Name (string)	ARMS_Department_ID (string)	Total_of_Employees (short)	NumDebtEmployees (int)	PercentDebtEmplo...
0	06/04/22	ADMINISTRATIVE HEARING	AHMS	35	0	2.099999904632568
1	06/04/22	COMM ANIMAL CARE AND CONTROL	ANIMAL	61	1	1.600000023841858
2	06/04/22	AVIATION	AVIATION	⑦	39	2.099999904632568
3	06/04/22	BUS AFFAIRS AND CONSUMER PROT	BACP	168	2	1.200000047683715
4	06/04/22	BUILDINGS	BUILDINGS	233	2	0.899999976158142
5	06/04/22	CULTURAL AFFAIRS	CA	60	0	2.099999904632568
6	06/04/22	CHICAGO BOARD OF EDUCATION	CBOE	⑦	0	⑦ 7
7	06/04/22	CITY COLLEGES OF CHICAGO	CCC	⑦	237	5.300000190734863
8	06/04/22	CCPSA	CCPSA	1	0	2.099999904632568
9	06/04/22	FIRE DEPARTMENT	CFD	⑦	96	2
10	06/04/22	CHICAGO HOUSING AUTHORITY	CHA	526	6	1.100000023841858
11	06/04/22	CITY CLERK	CLERK	78	2	2.599999904632568
12	06/04/22	DEPARTMENT OF PLANNING AND DEV	COMM_DEVEL	147	1	0.699999988079071
13	06/04/22	CIVILIAN OFFICE OF POLICE ACCOUNTABILITY	COPA	121	2	1.700000047683715
14	06/04/22	CITY COUNCIL	COUNCIL	351	18	5.099999904632568
15	06/04/522	CHICAGO PARK DISTRICT	CPDT	⑦	105	4.099999904632568
16	06/04/22	CHICAGO PUBLIC LIBRARY	CPL	⑦	4	0.400000005960464
17	06/04/22	CHICAGO TRANSIT AUTHORITY	CTA	⑦	0	⑦ 23.20000076293945
18	06/04/22	DAIS	DAIS	948	7	0.699999988079071
19	06/04/22	BOARD OF ELECTION COMMISSIONER	ELECTIONS	108	3	2.799999952316284

```
    The column Total_Amount_Due should be a string,
    The column PercentDebtEmployee should be a single precision float,
    The column   should be a double precision float,
    Total_Amount_Due has no more than 0.0% nulls,
    PercentDebtEmployee has no more than 0.0% nulls
  )
```

👁‍🗨   Console ▾   Timing   Datasets ▾   Charts ▾   🔗

Created Dataset Stabilizer Lens on aggregate1

[13]

≡

❗

```python
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

df = vizierdb.get_dataset('employeedebtchicago')
df['Date'] = pd.to_datetime(df['Date'])

df.dropna(subset=['Total_Amount_Due'], inplace=True)

total_amount_by_employee = df.groupby('ARMS_Department_ID')['Total_Amount_Due'].sum().reset_index()

total_amount_by_employee.to_csv('total_amount_by_employee.csv', index=False)

sns.barplot(x='ARMS_Department_ID', y='Total_Amount_Due', data=total_amount_by_employee)
plt.title('Total Indebtedness by Employee')
plt.xlabel('ARMS_Department_ID')
plt.ylabel('Total_Amount_Due')
```

👁‍🗨   Console ▾   Timing   Datasets ▾   Charts ▾   🔗

```
ModuleNotFoundError: No module named 'seaborn'
  ... caused by <Python Cell> on line 3
```

Connected to vizier @ http://localhost:5001/vizier-db/api/v1/ 📓