



# NYC Job Posting » Data Analysis »

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# Overview

Introduction

Architecture Setup

Data Cleaning

Analysis Results

Questions/Comments





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# Introduction



## Our Company

Cognixia Gov Staffing is harnessing data to enhance recruitment strategies that will benefit both clients and candidates. Our Focus is on job postings in NYC, using data from the City of New York's official job site. This dataset provides a comprehensive view of the local job market.

## Our Idea



By analyzing this data, we gain insights into recruitment complexities, enabling us to offer tailored solutions to our clients. Our goal is to connect the right candidates with the right opportunities in NYC driven by actionable insights from data analysis.



# Project Setup/Timeline

**COG board**

GG

GROUP BY 

None

Insights

View settings

TO DO

+ Create issue

IN PROGRESS 4

Data Transformation

☒ COG-2

Data Loading

☒ COG-3

Data Analysis

☒ COG-4

Presentation Slides

☒ COG-5

DONE 3

PRD

☒ COG-6

Sourcing Data

☒ COG-7

Data Extraction

☒ COG-1



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# Architecture Setup

# IAM Roles and Policies

<input type="checkbox"/>	Role name	Trusted entities
<input type="checkbox"/>	<a href="#">AWSGlueServiceRole</a> Select data for AWSGlueServiceRole	AWS Service: s3, <a href="#">and 2 more.</a> <a href="#">↗</a>
<input type="checkbox"/>	<a href="#">AWSServiceRoleForRDS</a>	AWS Service: rds (Service-Linked Role)
<input type="checkbox"/>	<a href="#">AWSServiceRoleForRedshift</a>	AWS Service: redshift (Service-Linked Role)
<input type="checkbox"/>	<a href="#">lambda_full_access</a>	AWS Service: lambda, <a href="#">and 1 more.</a> <a href="#">↗</a>
<input type="checkbox"/>	<a href="#">AmazonRedshift-CommandsAccessRole-20240219T141959</a>	AWS Service: redshift-serverless, <a href="#">and 1 more.</a> <a href="#">↗</a>

# IAM Roles and Policies

	Policy name ▲	Type ▼	Used as ▼	Description
<input type="radio"/>	<input type="checkbox"/> <a href="#">AmazonRedshift-Com...</a>	Customer managed	Permissions policy (1)	-
<input type="radio"/>	<input type="checkbox"/> <a href="#">AmazonRedshift-Com...</a>	Customer managed	Permissions policy (1)	-
<input type="radio"/>	<input type="checkbox"/> <a href="#">AWSGlueServiceRole-...</a>	Customer managed	Permissions policy (1)	This policy will be used for Glue Crawler and Job execution. Please do NOT delete!
<input type="radio"/>	<input type="checkbox"/> <a href="#">AWSLambdaBasicExec...</a>	Customer managed	Permissions policy (1)	-
<input type="radio"/>	<input type="checkbox"/> <a href="#">AWSLambdaBasicExec...</a>	Customer managed	Permissions policy (1)	-
<input type="radio"/>	<input type="checkbox"/> <a href="#">AWSLambdaVPCAcce...</a>	Customer managed	Permissions policy (1)	-
<input type="radio"/>	<input type="checkbox"/> <a href="#">AWSLambdaVPCAcce...</a>	Customer managed	Permissions policy (1)	-
<input type="radio"/>	<input type="checkbox"/> <a href="#">rds-proxy-policy-170...</a>	Customer managed	Permissions policy (1)	-
<input type="radio"/>	<input type="checkbox"/> <a href="#">rds-proxy-policy-170...</a>	Customer managed	Permissions policy (1)	Allows RDS Proxy access to database connection credentials
<input type="radio"/>	<input type="checkbox"/> <a href="#">rds-proxy-policy-170...</a>	Customer managed	Permissions policy (1)	-



# S3 Bucket







 semistructureddata

US East (N. Virginia) us-east-1

Objects can be public

February 19, 2024,  
11:46:34 (UTC-05:00)

- Added read and write permission
- Uploaded a csv file to the bucket
- S3 bucket served as our Lake


<input type="checkbox"/>	Name ▲	Type ▼	Last modified ▼	Size ▼	Storage class ▼
<input type="checkbox"/>	 <a href="#">data1.csv</a>	csv	February 21, 2024, 14:54:22 (UTC-05:00)	6.2 MB	Standard
<input type="checkbox"/>	 <a href="#">data2.csv</a>	csv	February 21, 2024, 14:17:07 (UTC-05:00)	6.1 MB	Standard
<input type="checkbox"/>	 <a href="#">data3.csv</a>	csv	February 21, 2024, 14:18:07 (UTC-05:00)	6.1 MB	Standard
<input type="checkbox"/>	 <a href="#">data4.csv</a>	csv	February 21, 2024, 14:19:39 (UTC-05:00)	6.2 MB	Standard
<input type="checkbox"/>	 <a href="#">data5.csv</a>	csv	February 21, 2024, 14:21:06 (UTC-05:00)	6.1 MB	Standard
<input type="checkbox"/>	 <a href="#">data6.csv</a>	csv	February 21, 2024, 14:22:24 (UTC-05:00)	2.9 MB	Standard


# ■ ■ ■ ■ ■ ■ ■ ■ Lambda Function Overview



▼ **Function overview** [Info](#)

**Diagram** **Template**

 **extractGovJson**

 **Layers** (1)

**+ Add trigger**



# Lambda Function:

```
import json
import boto3
import pandas as pd
import requests

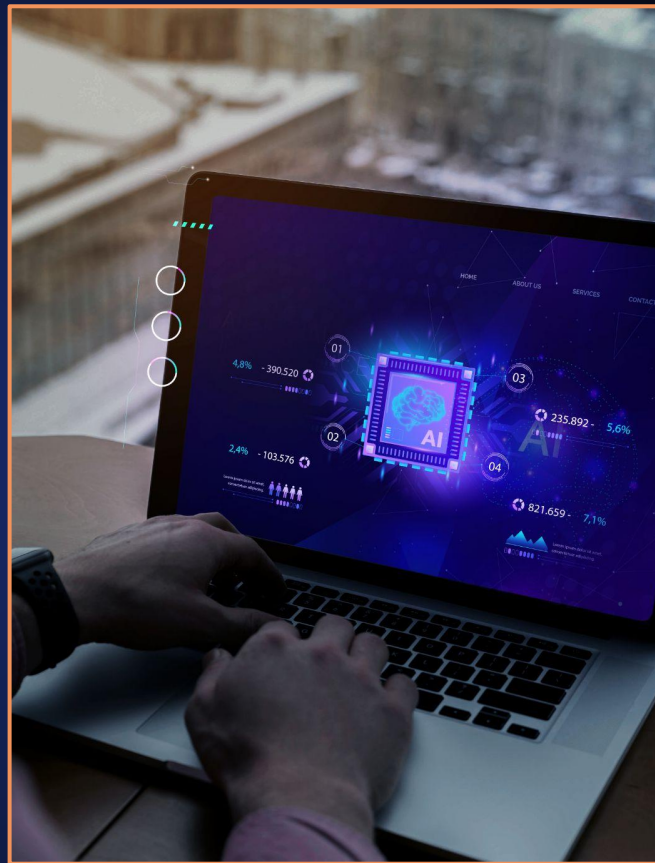
s3 = boto3.client('s3')

def lambda_handler(event, context):
    bucket = 'semistructureddata'
    url = 'https://data.cityofnewyork.us/resource/kpav-sd4t.json'

    params = {'$limit': 1000, '$offset': 1000}
    response = requests.get(url, params=params)
    data = response.json()

    df = pd.DataFrame(data)
    df.drop_duplicates(inplace=True)

    csv_data = df.to_csv(index=False)
    fileName = 'data2.csv'
    uploadByteStream = bytes(csv_data.encode('utf-8'))
    s3.put_object(Bucket=bucket, Key=fileName, Body=uploadByteStream)
    print('Put Complete')
```





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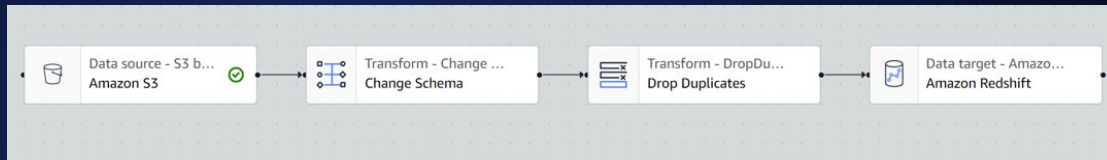
## Data Transform & Load

# Prior Configuration

- Uncleaned Data Stored in S3 Bucket
- Setup Data Warehouse (Redshift)
- IAM Role and permissions to access S3 and Redshift
- Glue Connector for Redshift DB connection
- Initial Exploratory Data Analysis to extract necessary features

# AWS GLUE

- Used AWS Glue for ETL Jobs



**Transform Load job** Last modified on 2/21/2024, 3:30:40 PM Try new UI Actions Save Run

**Visual** | Script | Job details | Runs | Data quality - updated | Schedules | Version Control

**Transform**

Choose one or more parent node

Amazon S3 S3 - DataSource

**Change Schema (Apply mapping)**

Source key	Target key	Data type	Drop
job_id	job_id	string	<input type="checkbox"/>
agency	agency	string	<input type="checkbox"/>
posting_type	posting_ty	string	<input type="checkbox"/>
number_of_position	number_of	int	<input type="checkbox"/>
business_title	business_ti	string	<input type="checkbox"/>
civil_service_title	civil_servici	string	<input type="checkbox"/>
title_classification			<input checked="" type="checkbox"/>
title_code_no			<input checked="" type="checkbox"/>
level	level	string	<input type="checkbox"/>
job_category			<input checked="" type="checkbox"/>

**Data preview** (200) Info READY End session Previewing 16 of 16 fields

Filter sample dataset

job_id	agency	posting_type	number_of_positions	business_title
619324	DEPT OF HEALTH/MENTAL HYGIENE	External	1	Senior Director and Community...



# AWS RedShift

- Served as our Warehouse

The screenshot displays the AWS RedShift query editor v2 interface. The top navigation bar includes various AWS services: IAM, VPC, S3, Lambda, RDS, EC2, CloudWatch, AWS Glue, Amazon RedShift, Amazon EventBridge, and Billing and Cost Management. The left sidebar contains navigation options: Editor, Queries, Notebooks, Charts, History, and Scheduled queries. The main editor area is titled 'Redshift query editor v2' and shows a SQL query: `select * from public.joblistings;`. The query is executed, and the results are displayed in a table format. The table has 7 columns: job\_id, agency, posting\_type, number\_of\_positions, business\_title, civil\_service\_title, and level. The results show 100 rows of data, with the first row being: 529960, HRA/DEPT OF SOCIAL S., Internal, 1, PROCEDURES COORDI., PRINCIPAL ADMINISTR., 02.

Redshift query editor v2

Filter resources

Serverless: nyc-listings-workgroup

awsdatacatalog

dev

public

Tables

joblistings

Views

Functions

joblistings

Field

Type

A job\_id

character varying(256)

A agency

character varying(256)

A posting\_type

character varying(256)

A number\_of\_positions

integer

A business\_title

character varying(256)

Result 1 (100)

Export

Chart

Row 1, Col 34, Chr 33

job_id	agency	posting_type	number_of_positions	business_title	civil_service_title	level
529960	HRA/DEPT OF SOCIAL S.	Internal	1	PROCEDURES COORDI.	PRINCIPAL ADMINISTR.	02
581056	DEPT OF ENVIRONMEN.	External	1	SCADA Support Specialist	COMPUTER SPECIALIST	02
607342	DEPARTMENT OF TRAN.	Internal	1	Federal Planning Activit	COMMUNITY COORDIN.	00
598329	DEPARTMENT OF TRAN.	Internal	1	Clerical Associate Level 3	CLERICAL ASSOCIATE	03
577755	DEPT OF CITYWIDE AD.	External	1	Sector Lead/Senior Pro.	ADMINISTRATIVE SUPE.	M1
557310	DEPARTMENT OF TRAN.	Internal	1	Records Associate (Per	PUBLIC RECORDS AIDE	00
608957	DEPT OF CITYWIDE AD.	Internal	4	Project Manager, Capitol	ASSOCIATE PROJECT M.	01
620926	DEPARTMENT OF FINA.	External	1	Customer Service Repre.	CLERICAL ASSOCIATE	03
606847	DEPARTMENT OF TRAN.	Internal	1	Deputy Director, Freight	CITY PLANNER	03
611088	HRA/DEPT OF SOCIAL S.	External	1	BOROUGH CHIEF	ASSOCIATE FRAUD INV.	02
567837	FINANCIAL INFO SVCS	Internal	1	WEB ARCHITECT	COMPUTER SYSTEMS M.	00
620293	HRA/DEPT OF SOCIAL S.	External	1	FAIR HEARING PROCES.	BENEFITS OPPORTUNIT.	00
604175	HRA/DEPT OF SOCIAL S.	External	1	ATTORNEY INTERNE	AGENCY ATTORNEY INT.	00
627225	FIRE DEPARTMENT	External	1	Supervising Inspector of	ASSOCIATE FIRE PROTE.	02

Elapsed time: 14 ms Total rows: 100

# EventBridge Scheduler

Step 1: Schedule detail Edit

**Schedule detail**

Schedule name data_extraction_lambda	Description -	Schedule group default
Time zone (UTC-05:00) America/New_York	Occurrence Recurring	Start date and time -
End date and time -	Flexible time window Off	

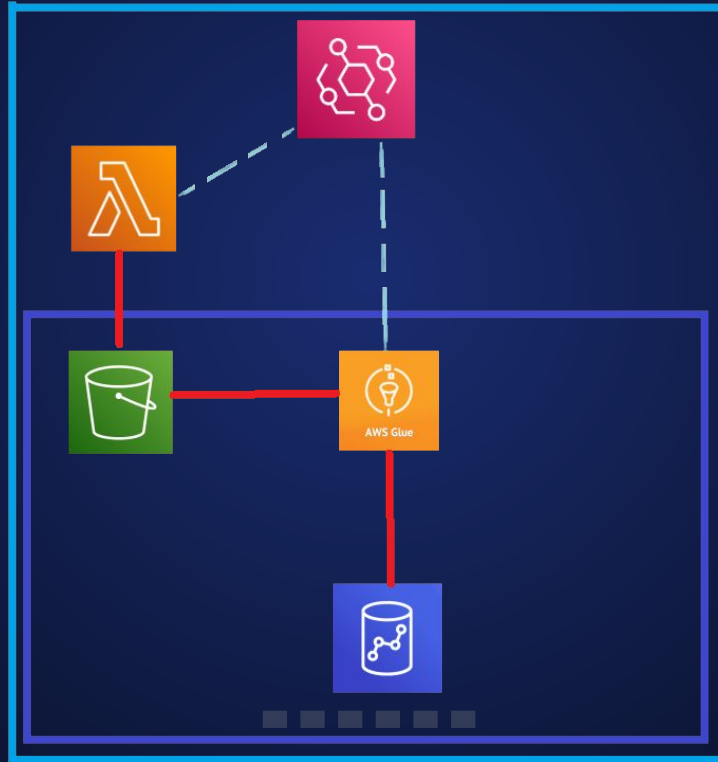
**Rate expression**

rate (7 days)





# Pipeline Architecture





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# Data Cleaning

# UNCLEANED

```
['Job ID',  
 'Agency',  
 'Posting Type',  
 '# Of Positions',  
 'Business Title',  
 'Civil Service Title',  
 'Title Classification',  
 'Title Code No',  
 'Level',  
 'Job Category',  
 'FT/PT',  
 'Career Level',  
 'Salary Range From',  
 'Salary Range To',  
 'Salary Frequency',  
 'Work Location',  
 'Division/Work Unit',  
 'Job Description',  
 'Min Qualifications',  
 'Preferred Skills',  
 'Additional Information',  
 'To Apply',  
 'Hours/Shift',  
 'Work Location 1',  
 'Recruitment Contact',  
 'Residency Requirement',  
 'Posting Date',  
 'Post Until',  
 'Posting Updated',  
 'Process Date']
```

30 columns

# VS.

14 columns

# CLEANED

```
['Job_id',  
 'Agency',  
 'Posting_type',  
 'Num_pos',  
 'Business_title',  
 'Civil_title',  
 'Level',  
 'Category',  
 'Ft_Pt',  
 'Career_level',  
 'Yearly_salary',  
 'Location',  
 'Division',  
 'Post_Date']
```

# Cleaning Code

Salary Range From	Salary Range To	Salary Frequency
399.68	399.68	Daily
74650.00	109409.00	Annual



Annual Base Salary
83932.8
74650.0

```
#Create new column to hold Base Salary Calculations
```

```
df['Base Salary'] = 0
```

```
#Calculate Daily salary rate to yearly, and copy Annual as yearly
```

```
df.loc[df['Salary Frequency'] == 'Daily', 'Base Salary'] = round(df['Salary Range From'].mul(210), 2)
```

```
df.loc[df['Salary Frequency'] == 'Annual', 'Base Salary'] = round(df['Salary Range From'], 2)
```

```
#calculate Base Salary for Hourly Employees dependent on their FT/PT Status
```

```
df['Base Salary'] = np.where((df['FT/PT'] == 'P') & (df['Salary Frequency'] == 'Hourly') , round(df['Salary Range From'].mul(20*52), 2), df['Base Salary'])
```

```
df['Base Salary'] = np.where((df['FT/PT'] == 'F') & (df['Salary Frequency'] == 'Hourly') , round(df['Salary Range From'].mul(40*52), 2), df['Base Salary'])
```

```
#move Base Salary column to desired location in table
```

```
column_to_move = df.pop("Base Salary")
```

```
df.insert(12, "Annual Base Salary", column_to_move)
```

# Cleaning Code

```
#Drop unnecessary columns
```

```
df = df.drop(['Title Classification', 'Title Code No', 'Salary Range To', 'Salary Range From', 'Salary Frequency', 'Hours/Shift', 'Post Until', 'Posting Updated', 'Process Date'], axis=1)
```

```
df = df.drop(['Preferred Skills', 'Additional Information', 'To Apply', 'Recruitment Contact', 'Work Location 1', 'Job Description'], axis=1)
```

15 columns



```
#rename columns for query managability
```

```
df =df.rename(columns={'FT/PT': 'Ft_Pt', 'Minimum Qual Requirements' : 'Min_qual', 'Job ID' : 'Job_id', '# Of Positions' : 'Num_pos'})
```

```
df =df.rename(columns={'Business Title': 'Business_title', 'Civil Service Title' : 'Civil_title', 'Job Category' : 'Category', 'Career Level' : 'Career_level'})
```

```
df =df.rename(columns={'Posting Type': 'Posting_type', 'Annual Base Salary' : 'Yearly_salary', 'Work Location' : 'Location', 'Division/Work Unit' : 'Division'})
```

```
df =df.rename(columns={'Residency Requirement': 'Res_req', 'Posting Date' : 'Post_Date'})
```



Rename

# CLEANED DATAFRAME

Job_id	Agency	Posting_type	Num_pos	Business_title	Civil_title	Level	Category	Ft_Pt	Career_level	Yearly_salary	Location	Division	Post_Date
589025	DEPARTMENT OF TRANSPORTATION	External	2	Supervisor Highway Repairer	SUPERVISOR HIGHWAY REPAIRER	00	Building Operations & Maintenance	F	Experienced (non-manager)	83932.8	55 Water St Ny Ny	Preventive Maintenance	06/14/2023
552763	DEPT OF ENVIRONMENT PROTECTION	Internal	1	Asset Management Program Planner	ASSOCIATE PROJECT MANAGER	02	Engineering, Architecture, & Planning	F	Experienced (non-manager)	74650.0	96-05 Horace Harding Expway	ASSET MANAGEMENT PLANNING	09/29/2022
595336	HRA/DEPT OF SOCIAL SERVICES	External	7	CASE MANAGEMENT SUPERVISOR	ASSOCIATE BENEFITS OPPORTUNITY	01	Administration & Human Resources Social Services	F	Experienced (non-manager)	56677.0	95 Evergreen Ave Brooklyn	FIA Operations-NM	07/27/2023
597592	DEPT OF ENVIRONMENT PROTECTION	Internal	1	ASSISTANT PROJECT MANAGER	PROJECT MANAGER INTERN#	00	Engineering, Architecture, & Planning Public S...	F	Experienced (non-manager)	56313.0	465 Columbus Ave. Valhalla, Ny	UPSTATE CAPITAL CONSTR. - IFA	08/17/2023
...	...	...	...	...	...	...	...	...	...	...	...	...	...
620496	DEPT OF HEALTH/MENTAL HYGIENE	External	1	First Line Supervisor, Bureau of Hepatitis, HL...	SUPERVISING PUBLIC HEALTH ADVI	00	Constituent Services & Community Programs Heal...	F	Experienced (non-manager)	59301.0	42-09 28th Street	STI Programs	12/19/2023
623202	OFFICE OF THE COMPTROLLER	Internal	1	Research Support Intern for the Chief Investme...	SUMMER COLLEGE INTERN	00	Finance, Accounting, & Procurement Policy, Res...	P	Student	16120.0	1 Centre St., N.Y.	Asset Management	01/12/2024
618020	DEPT OF ENVIRONMENT PROTECTION	External	1	Cost Estimating Manager	ADMINISTRATIVE ENGINEER	M3	Engineering, Architecture, & Planning Policy. ...	F	Manager	72038.0	96-05 Horace Harding Expway	PROJECT MANAGEMENT OFFICE (PMO)	01/02/2024
622987	DEPT OF HEALTH/MENTAL HYGIENE	Internal	1	Community Educator, Bureau of Environmental Di...	PUBLIC HEALTH EDUCATOR	01	Health	F	Experienced (non-manager)	56869.0	125 Worth Street, Nyc	Healthy Homes Program	01/16/2024



# Schema

Job_NYC_Postings		
PK	Job ID	INT
	Agency	VARCHAR(30)
	Posting Type	VARCHAR(25)
	# of Positions	INT
	Business Title	VARCHAR(35)
	Civil Service Title	VARCHAR(50)
	Level	VARCHAR(40)
	Job Category	VARCHAR(1)
	FT/PT	VARCHAR(35)
	Career Level	VARCHAR(25)
	Annual Base Salary	DOUBLE
	Work Location	VARCHAR(55)
	Division/Work Unit	VARCHAR(35)
	Posting Date	DATE



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# Analysis

Using: Pandas, Numpy, Sqlite3, matplotlib and seaborn



# Top Paying NYC Jobs

```
query = 'SELECT Agency, Business_title, Civil_title, Yearly_salary FROM NYC_job_postings WHERE Yearly_salary >= 100000 ORDER BY Yearly_salary DESC'  
pd.read_sql_query(query, engine).drop_duplicates()
```

✓ 0.0s

	Agency	Business_title	Civil_title	Yearly_salary
0	DEPARTMENT OF CORRECTION	Deputy Commissioner, Training & Development	DEPUTY COMMISSIONER (DOC)	225000.00
1	DEPT OF ENVIRONMENT PROTECTION	Deputy Commissioner, Environmental Compliance	DEPUTY COMMISSIONER (DEP)	225000.00
3	DEPT OF ENVIRONMENT PROTECTION	Deputy Commissioner, Bureau of Customer Services	DEPUTY COMMISSIONER (DEP)	225000.00
6	BRONX DISTRICT ATTORNEY	Chief Human Resources Officer	ADMINISTRATIVE LABOR RELATIONS	207500.00
7	BRONX DISTRICT ATTORNEY	Bureau Chief of Recruitment	ASSISTANT DISTRICT ATTORNEY (S	207500.00
10	HOUSING PRESERVATION & DVLPMNT	Deputy Commissioner, Office of Asset and Prope...	DEPUTY COMMISSIONER (HOUSING P	207000.00
12	HOUSING PRESERVATION & DVLPMNT	Deputy Commissioner, Office of Policy and Stra...	DEPUTY COMMISSIONER (HOUSING P	207000.00
14	DEPARTMENT OF CORRECTION	Assistant Commissioner, Facility Operations	FACILITY SUPERVISOR (CORRECTIO	201587.00
16	DEPARTMENT OF CORRECTION	Associate Commissioner - Legal Matters	ASSOCIATE COMMISSIONER (DOC)	200000.00
17	DEPARTMENT OF CORRECTION	Deputy Commissioner, General Counsel	EXECUTIVE AGENCY COUNSEL	200000.00
22	DEPARTMENT OF CORRECTION	Associate Commissioner, Operations	ASSOCIATE COMMISSIONER (DOC)	200000.00
24	DEPARTMENT OF CORRECTION	Chief Surgeon, Health Management Division	CITY MEDICAL DIRECTOR	195000.00
25	DEPARTMENT OF CORRECTION	Deputy Commissioner, Chief Information Officer	DEPUTY COMMISSIONER (DOC)	195000.00
28	HRA/DEPT OF SOCIAL SERVICES	DEPUTY DIRECTOR, STRATEGY AND OPERATIONS	EXECUTIVE DEPUTY ADMINISTRATOR	190753.00
30	BRONX DISTRICT ATTORNEY	Bureau Chief - Chief of Crime Strategies Unit	ASSISTANT DISTRICT ATTORNEY (S	190000.00
32	LAW DEPARTMENT	Deputy Chief, Labor and Employment Law Division	ASSISTANT CORPORATION COUNSEL	186827.00
34	OFFICE OF MANAGEMENT & BUDGET	Associate Director FEDERAL AND STATE GRANTS M...	BUDGET ANALYST (OMB)-MANAGERIA	185886.00
36	DEPARTMENT OF CORRECTION	Associate Commissioner, Enterprise Development...	ASSOCIATE COMMISSIONER (DOC)	180000.00
37	DEPARTMENT OF TRANSPORTATION	Associate Deputy Commissioner	DEPUTY COMMISSIONER (DOT)	180000.00
40	DEPT OF ENVIRONMENT PROTECTION	Assistant Commissioner for Strategy and Innova...	ASSISTANT COMMISSIONER (DEP)	175000.00
41	DEPT OF ENVIRONMENT PROTECTION	Assistant Commissioner, OD&HR	ASSISTANT COMMISSIONER (DEP)	175000.00
43	DEPARTMENT OF CORRECTION	Associate Commissioner - Legal Matters	ASSOCIATE COMMISSIONER (DOC)	175000.00

# Top Paying Entry Level Jobs

```
query = """SELECT Agency, Business_title, Civil_title, Yearly_salary
FROM NYC_job_postings
WHERE Career_level = 'Entry-Level'
AND Ft_Pt = 'F'
ORDER BY Yearly_salary DESC"""
```

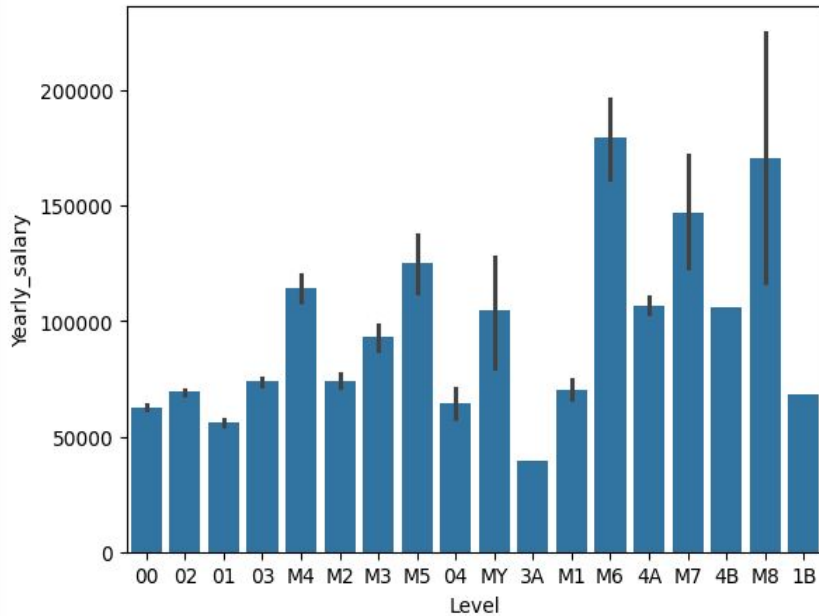
```
pd.read_sql_query(query, engine).drop_duplicates()
```

✓ 0.0s

	Agency	Business_title	Civil_title	Yearly_salary
0	DEPT. OF HOMELESS SERVICES	Sheet Metal Worker	SHEET METAL WORKER	120473.6
2	DEPT OF ENVIRONMENT PROTECTION	Plumber	PLUMBER	118268.8
4	NYC HOUSING AUTHORITY	PLASTERER	PLASTERER	100401.6
20	NYC HOUSING AUTHORITY	PLASTERER (HOUSING AUTH-40 HRS/WK)	PLASTERER	93225.6
22	DEPT OF HEALTH/MENTAL HYGIENE	CIR Statistician, Bureau of Immunization Stat...	CITY RESEARCH SCIENTIST	92301.0
24	DISTRICT ATTORNEY RICHMOND COU	Assistant District Attorney	ASSISTANT DISTRICT ATTORNEY (S	85000.0
26	DEPARTMENT OF TRANSPORTATION	Security Analyst	CYBER SECURITY ANALYST	78795.0
28	DEPT OF ENVIRONMENT PROTECTION	Machinist	MACHINIST	77542.4
32	LAW DEPARTMENT	Assistant Corporation Counsel - Administrative...	ASSISTANT CORPORATION COUNSEL	75677.0
34	BRONX DISTRICT ATTORNEY	Assistant District Attorney Fall 2024	ASSISTANT DISTRICT ATTORNEY (S	73579.0
36	DEPT OF ENVIRONMENT PROTECTION	Machinist's Helper	MACHINIST'S HELPER	73236.8
37	DEPT OF ENVIRONMENT PROTECTION	MACHINIST HELPER	MACHINIST'S HELPER	73236.8
42	DEPT OF HEALTH/MENTAL HYGIENE	Budget and Grant Analyst	ASSOCIATE STAFF ANALYST	70611.0
44	DEPT OF HEALTH/MENTAL HYGIENE	Data Analyst, Bureau of Hepatitis, HIV, and STI	CITY RESEARCH SCIENTIST	70087.0
46	OFFICE OF THE COMPTROLLER	Staff Auditor	ACCOUNTANT	70000.0
47	OFFICE OF THE COMPTROLLER	Staff Auditor	MANAGEMENT AUDITOR	70000.0
48	HUMAN RIGHTS COMMISSION	AGENCY ATTORNEY I	AGENCY ATTORNEY	69090.0
50	DEPARTMENT OF CORRECTION	Agency Attorney Interne	AGENCY ATTORNEY INTERNE	68183.0

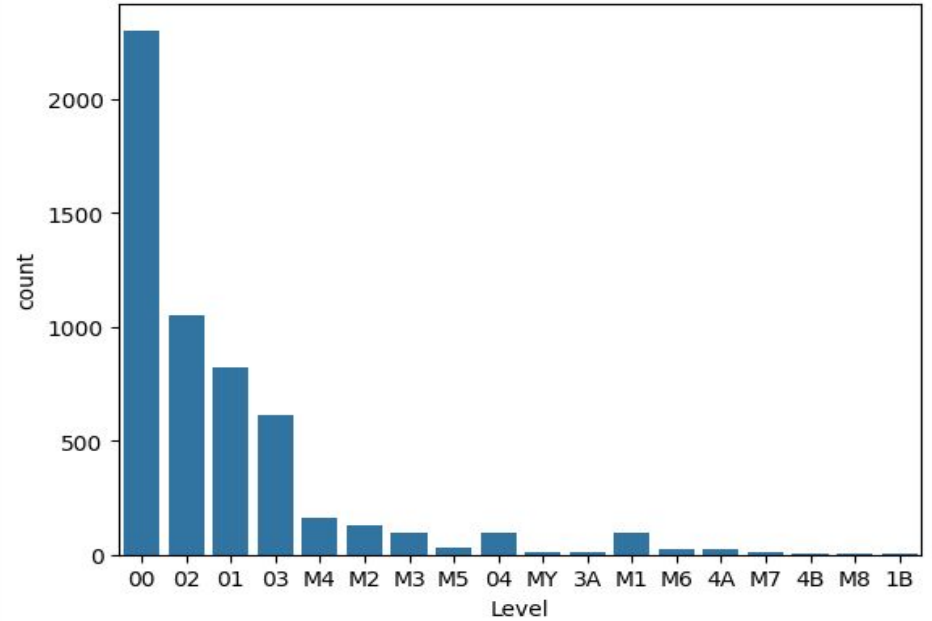
# Correlations between Job Salary and number of jobs available.

Job Level in relation to Salary

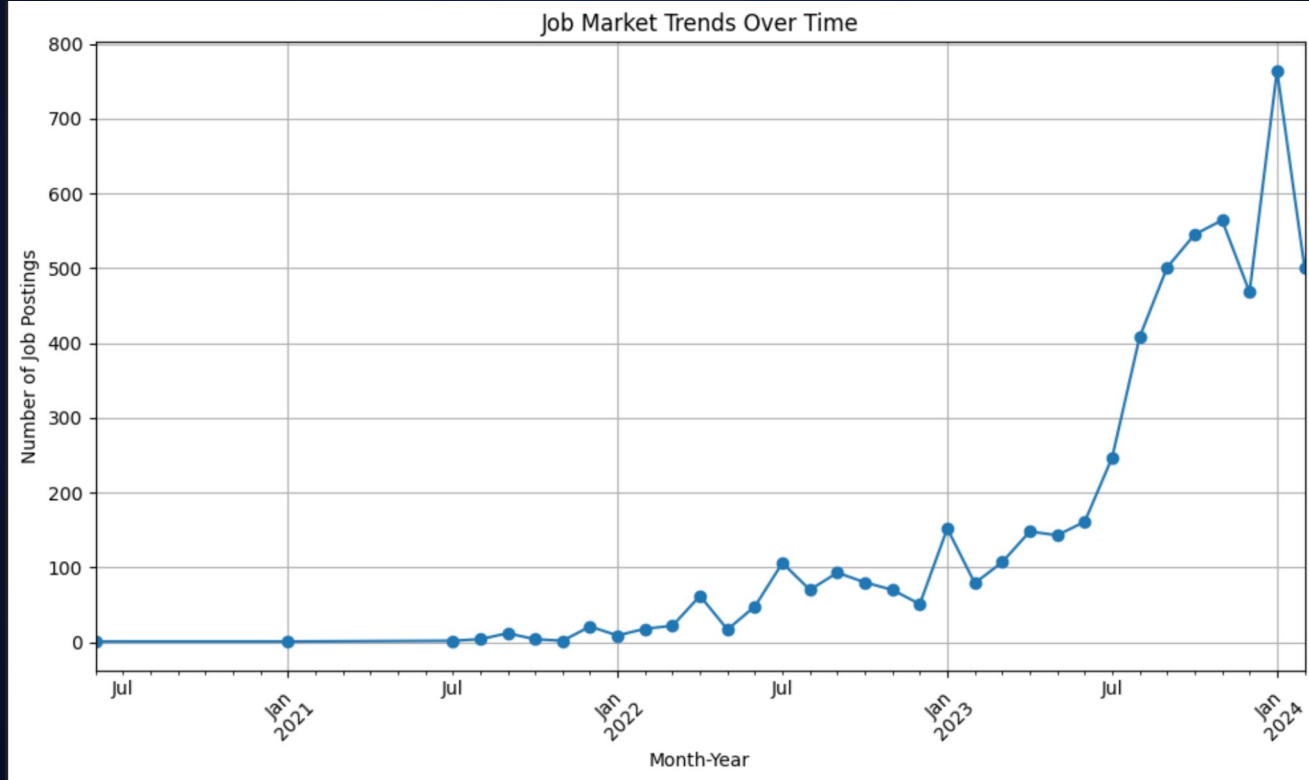


vs.

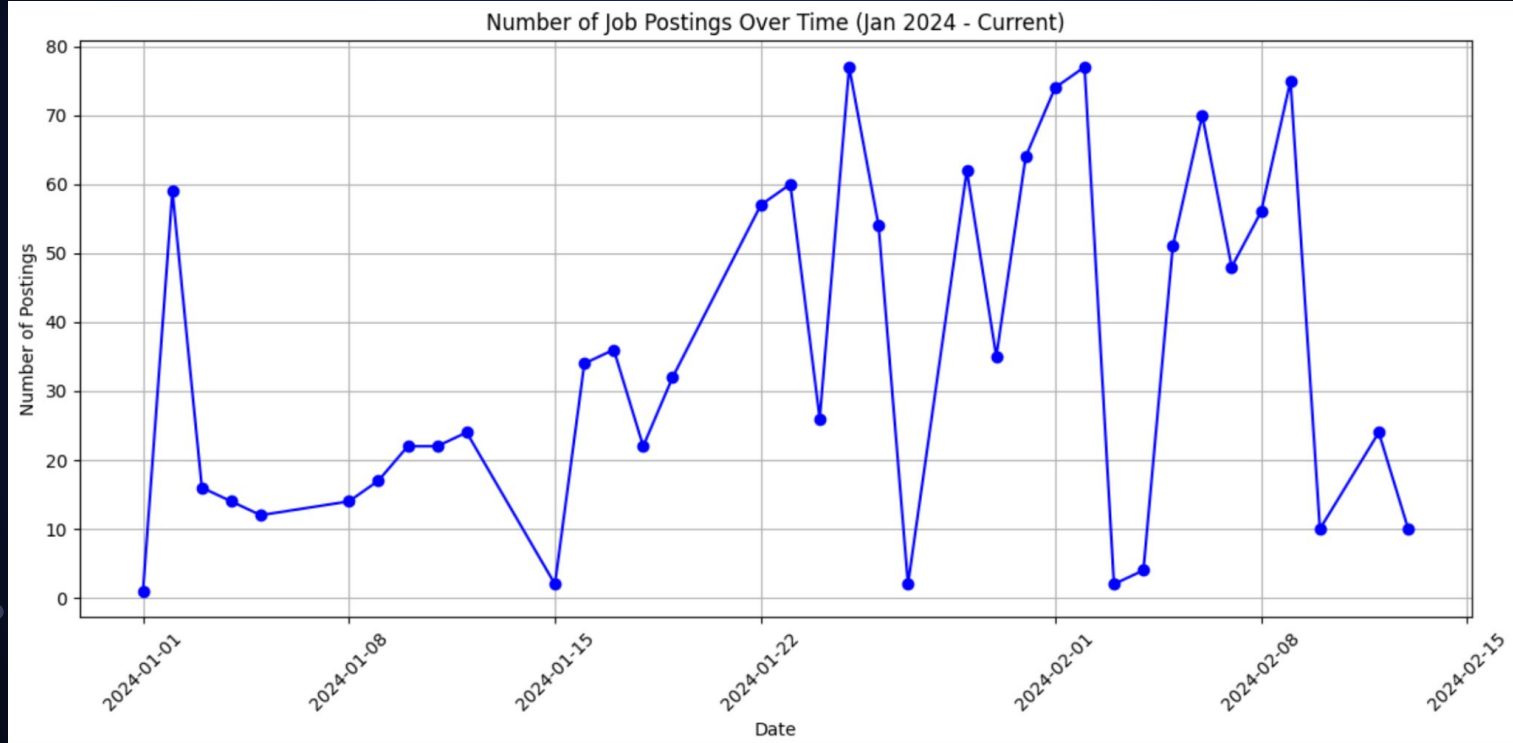
Number of Jobs available for that level



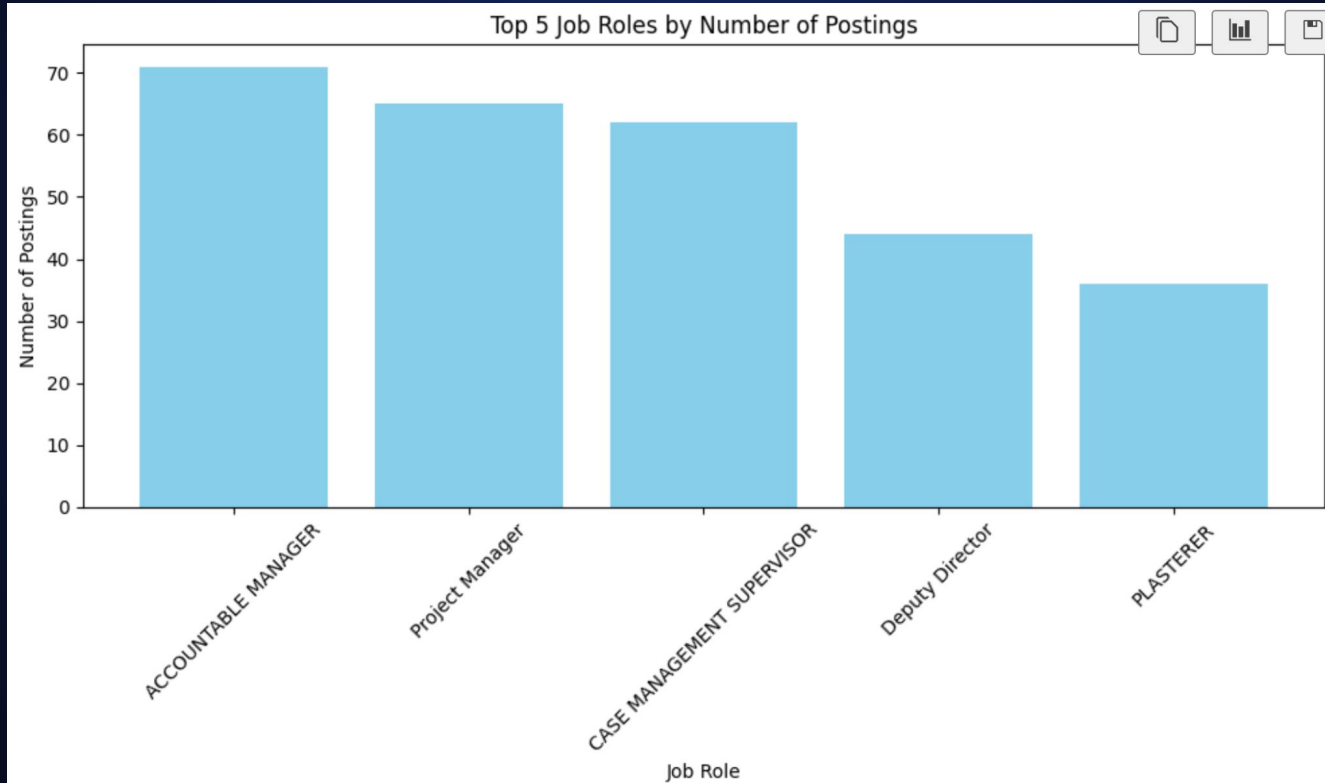
# Job Market Trend



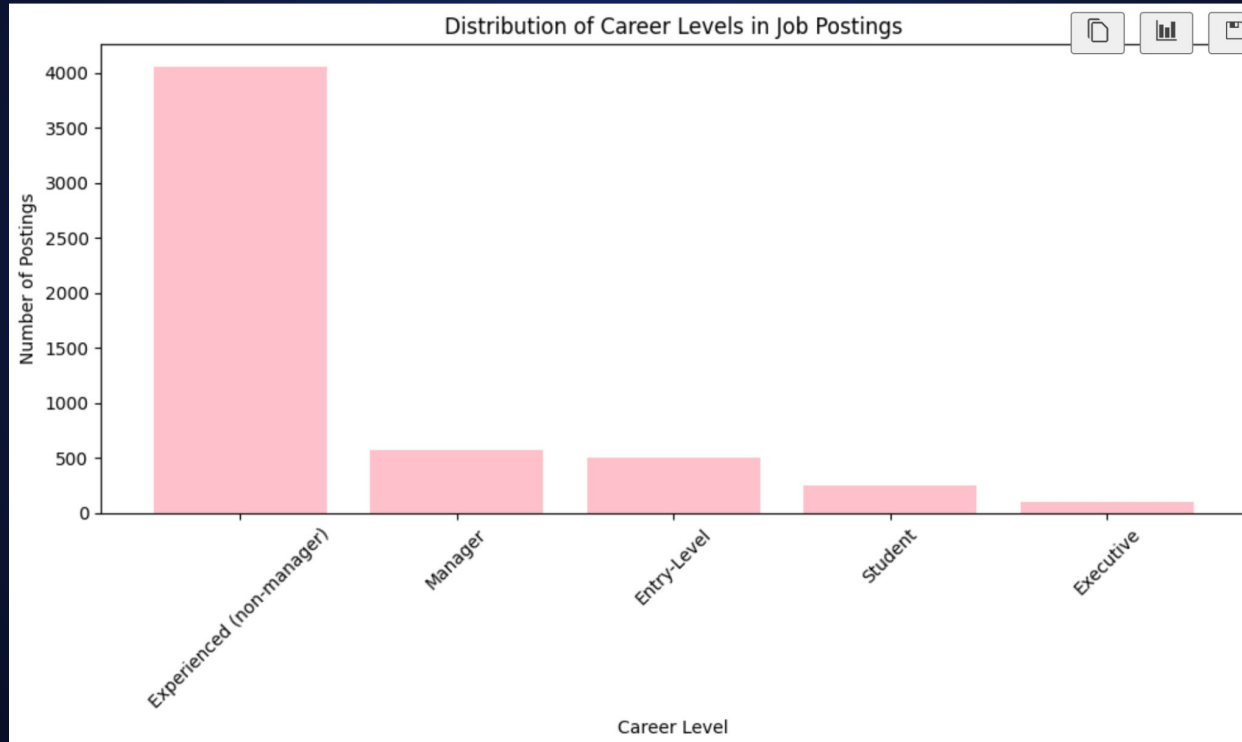
# Job Market Trend Jan '24 - current



# Top 5 Roles by Posting



# Career Level Job Postings



# Challenges and Resolutions

- Associate the route table to endpoint
- String lengths too great for table transfer
- Creating a table with Glue
- Running out of Lambda memory in free tier



# Takeaways:

- Planning - ensuring all aspects of the project are clearly defined
- Organization and keeping code from expanding into too many areas
- Visual ETL jobs make your job easier but come with a price
- Scheduling Lambda's or any service to run is very easy with Eventbridge Scheduler  
(and free for default scheduling)

# Key ideas in market opportunity

## Stay ahead of trends

Monitor changes in the marketplace, such as shifts in job requirements to stay competitive and capitalize on new opportunities and trends

## Innovative way to use the Data as a Job Seeker

Utilize the data to see what qualifications are needed to land your potential role and upskill from there

## Seasonal spikes

Identify times of year when demand for employees may spike. This can be based on quarterly returns, leaving companies with more funds for hiring and potential growth



# Thanks!



Do you have any questions?

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