DATA SCIENCE JOB SALARIES

Hello, this readme will show each steps i took into my Python project. Hope you have a nice read.😀

it will be divided into few sections:

- Imports
- Data Cleaning.
- Data Manipulations.
- Visualization.

IMPORTS

I imported opendataset od for our Url downloads and named the link datasets_url and download using od.download function. I made data_dir to show the directory.

I imported os and used the function os.listdir of data_dir to show us the csv file. Also,i imported Pandas as pd, and created a dataframe known as ds_job_salary_df to read the csv file using pd.read_csv function.

My final imports for visualization were seaborn sns,matplotlib.

DATA CLEANING

I created a copy called ds_job_sal_df.

FUNCTIONS USED:

.shape:

Shows shape of the data.

.column:

Brings a list of the columns.

.info:

This provided the columns, Non-null count and Data type.

.drop:

I removed the column 'Unnamed: 0','salary'

.isnull

It shows the amount nulls within the data which was 0.

DATA MANIPULATION

I created a new column called Job_branch from Job_title.

.describe:

This shows the counts,mean,std,min to max of the integer Datatype found the csv.

.nunique

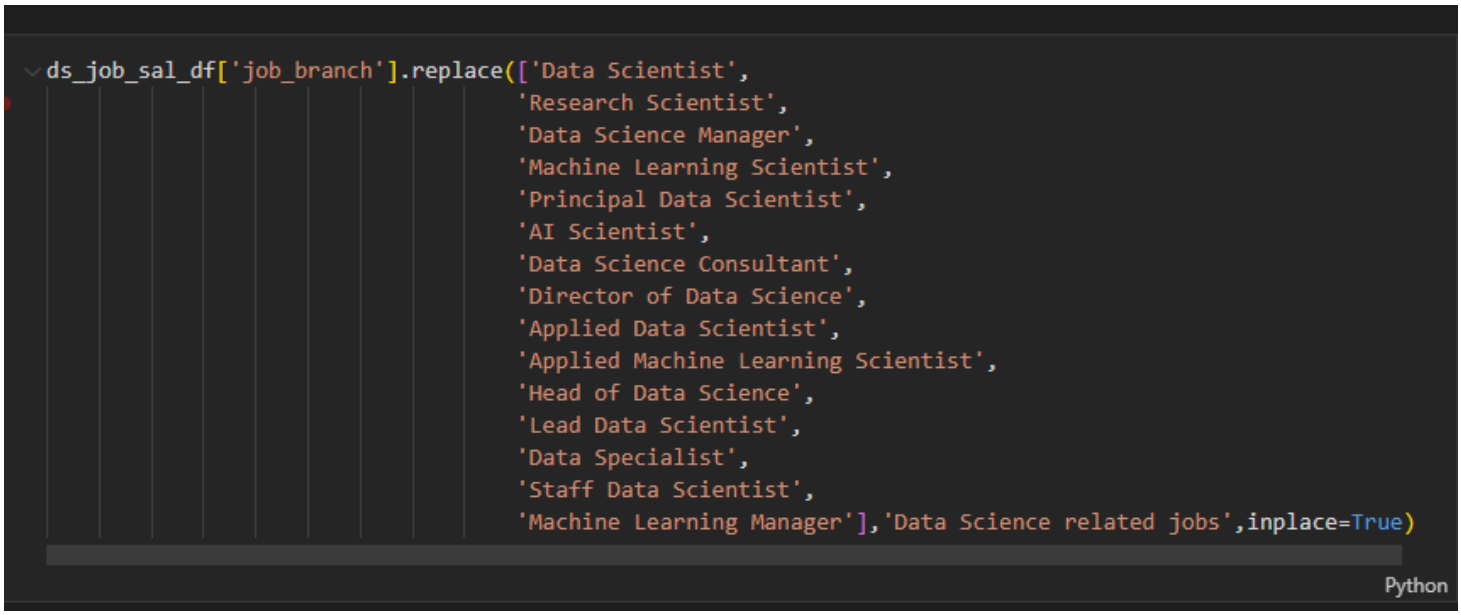
To count the distinct number of company_location,salary_currency.

value_counts

This was used show series counts of company_location in a descending order. also the work_year and company_size column

.replace

I used this function to divide the job_branch into 3 categories.



*Picture1: Data science Category

```
ds_job_sal_df['job_branch'].replace(['Data Analyst',
                                     'Data Analytics Manager',
                                     'BI Data Analyst',
                                     'Head of Data',
                                     'Business Data Analyst',
                                     'Lead Data Analyst',
                                     'Financial Data Analyst',
                                     'Product Data Analyst',
                                     'Principal Data Analyst',
                                     'Marketing Data Analyst',
                                     'Finance Data Analyst',
                                     '3D Computer Vision Researcher','Data Analytics Lead'],'Data Analysis re
```

Python

*Picture2: Data analyst Category

```
ds_job_sal_df['job_branch'].replace(['Lead Machine Learning Engineer',
                                     'NLP Engineer',
                                     'Head of Machine Learning',
                                     'Big Data Architect',
                                     'Director of Data Engineering',
                                     'Cloud Data Engineer',
                                     'ETL Developer',
                                     'Principal Data Engineer',
                                     'Data Science Engineer',
                                     'Computer Vision Software Engineer',
                                     'Machine Learning Developer',
                                     'Machine Learning Infrastructure Engineer',
                                     'Data Analytics Engineer',
                                     'Analytics Engineer',
                                     'Data Engineering Manager',
                                     'Lead Data Engineer',
                                     'ML Engineer',
                                     'Computer Vision Engineer',
                                     'Big Data Engineer',
                                     'Data Architect',
                                     'Machine Learning Engineer',
                                     'Data Engineer'],'Data Engineering related jobs',inplace=True)
```

Python

*Picture3: Data engineering Category

.groupby

I used this to group 2 columns together with their mean value.

VISUALIZATION

I set the font sixe,figsize,facecolor and style.

sns.barplot:

I created a df showing salary_currency* 100 /ds_job_sal_df count to get the percentage. I used the created df as x and it's index as y for the bargraph.

plt.pie

I created title called Size of Company, using company_size column and it's index for laels with an autopct='%1.1f%'. It has startangle of 180.

sns.scatterplot

It has figsize of 12,6 and a title
It also contains x-axis,y-axis and hue with s of 100.

Also, rotation can be 75,xlabel and ylabel can be included

sns.histplot

It contains a title, x-axis and y-labels and a hue.

sns.pairplot

Using the df and a hue showed my plots.

.plot

I created df by Grouping 2 columns together and using the function value_counts
I gave it figsize,grid and used the descriptive column for my x-axis.

Also,you can determine the kind of Graph you want using 'kind='.