

AI-Driven Exploration and Prediction of Company Registration Trends with Registrar of Companies(ROC)

Phase 4 : Development part 2

Libraries Required:

```
import pandas as pd

import matplotlib.pyplot as plt

from google.colab import files

uploaded = files.upload()

for fn in uploaded.keys():

    print('User uploaded file "{name}" with length {length} bytes'.format(

        name=fn, length=len(uploaded[fn])))

# Load the data

df = pd.read_csv('Plantation_Companies.csv')

df.head(20)

S.NoCINCOMPANY NAMEDATE OF\nREGISTRATIONCOMPANY ADDRESS

01U01132WB1885PLC000513ARYA TEA CO LTD5/16/188537 SHAKESPEARE SARANI4TH FLOOR KOLKATA West...

12U01132WB1878PLC000368HIND TEA CO LTD7/12/1878KOLKATA,WEST BENGAL W.B KOLKATA West Bengal ...

23L01132WB1885PLC000505MANABARRIE TEA CO LIMITED1/3/188528/1, SHAKESPEARE SARANI. GANGA JAMUNA BUILDIN...

34L01132WB1874PLC000281MOTHOLA COMPANY LTD3/5/1874707 CENTRAL PLAZA2/6 SARAT BOSE RD KOLKATA ...

45L01132WB1889PLC000576NEW CHUMTA TEA COMPANY LIMITED6/24/18893 NETAJI SUBHAS ROAD, MCLED HOUSE KOLKATA W...

56U01132WB1896PLC001049PHASKOWA TEA CO LTD1/11/18967 SWALLOW LANE KOLKATA West Bengal INDIA 70...

6 7 L01132WB1891PLC000687 PAHARGOOMIAH TEA ASSOCIATION LTD5/6/189128/2 Shakespeare Sarani Room No.803, 8th Floor...

7 8 U01132WB1871PLC000233 SINGELL TEA AND AGRICULTURAL INDUSTRIES LTD11/15/1871SUITE-17, CHOWRINGHEE MANSIONS, 30,JAWAHARLAL...

89U01132WB1874PLC000306THE LACKATOORAH TEA CO LTD12/5/1874 27, BRABOURNE ROAD, 8th floor Kolkata West ...

91U01132AS1876PLC000003CACHAR NATIVE JOINT STOCK CO LTD8/31/1876CLUB ROAD SILCHAR Assam INDIA 788001

1011U01132WB1882PLC000427RUNGAMATTEE TEA & INDUSTRIES LTD2/15/188290/31, DIAMOND HARBOUR ROAD, KOLKATA West B...
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1112L01132WB1893PLC000742TONGANI TEA COMPANY LIMITED2/4/1893OCTAVIUS CENTRE,3RD FLOOR 15B,HEMANTA BASU SAR...

1213U01132AS1890PLC000043JHIRIGHAT NATIVE TEA CO LTD6/9/1890G.S.ROAD, DISPUR, DIST. KAMRUP, GUWAHATI As...

1314U01132WB1900PLC000413SUNGMA TEA CO LTD3-30-190023, GANESH CHANDRA AVENUECALCUTTA W.B. W.B. We...

1415U01132WB1900PLC001472ATIABARI TEA CO LTD7-14-1900ARUN TEA WARE HOUSE COMPUNDSEVOKE ROAD II MILE...

1516L01132WB1900PLC000292JOONKTOLLEE TEA & INDUSTRIES LTD. 8-7-190021, STRAND ROAD KOLKATA West Bengal INDIA 700001

1617 L01132WB1901PLC001494 THE CHAMONG TEA CO LTD5-30-190112 GOVERNMENT PLACE EAST KOLKATA West Bengal I...

17 18L01132WB1905PLC001594RASOI LTD2-3-1905RASOI COURT, 20 SIR R.N. MUKHERJEE ROAD. KOLKA...

1819L01132WB1906PLC001648PUTIN BAREE TEA ASSOCIATION LTD2-13-190624 NETAJI SUBHAS ROAD KOLKATA West Bengal INDI...

1920U01132WB1907PLC001779LONGVIEW TEA & AGRO LIMITED6-7-190751, SHAKESPEARE SARANI 2ND FLOOR KOLKATA West ...

df.isna().sum()

S.No 0

CIN 0

COMPANY NAME 0

DATE OF\nREGISTRATION 0

COMPANY ADDRESS 0

Date of Registraion 0

Year 0

dtype: int64

df.dtypes

S.No int64

CIN object

COMPANY NAME object

DATE OF\nREGISTRATION object

COMPANY ADDRESS object

Date of Registraion datetime64[ns]

Year int64

```
dtype: object
```

```
# Convert the 'Date of Registration' column to datetime
```

```
df['Date of Registraion'] = pd.to_datetime(df['DATE OF\nREGISTRATION'])
```

```
# Extract the year from the date
```

```
df['Year'] = df['Date of Registraion'].dt.year
```

```
# Count the number of companies registered each year
```

```
registration_trends = df.groupby('Year').size()
```

```
# Plot the trends
```

```
plt.figure(figsize=(12,6))
```

```
plt.plot(registration_trends.index, registration_trends.values, marker='o')
```

```
plt.xlabel(' Year ')
```

```
plt.ylabel('Number of Companies Registered')
```

```
plt.title('Trend of Company Registrations')
```

```
plt.grid(True)
```

```
plt.show()
```

Trend of Company Registrations

