```
import·pandas·as·pd
import·tensorflow_probability·as·tfp
import·matplotlib.pyplot·as·plt
from·matplotlib.ticker·import·PercentFormatter
from·matplotlib·import·pyplot·as·plt


TechSkills·=pd.read_csv("/content/sample_data/TechSkills.csv")
print(TechSkills)
```

```
                    reason                                 description  \
     0       Microsoft Office                       Office suite software
     1      Microsoft Outlook                   Electronic mail software
     2   Microsoft PowerPoint                       Presentation software
     3      Microsoft Project                 Project management software
     4   Microsoft SharePoint                 Project management software
     5   Microsoft SQL Server  Data base user interface and query software
     6        Microsoft Visio          Graphics or photo imaging software
     7         Google AdWords                Sales and marketing software
     8       Google Analytics                        Data mining software
     9            Google Docs                   Word processing software
     10          Google Drive                       Office suite software
     11       Microsoft Excel                        Spreadsheet software
     12      Microsoft Office                       Office suite software
     13  Microsoft PowerPoint                       Presentation software
     14     Microsoft Project                 Project management software

         frequency
     0           9
     1           8
     2          10
     3          10
     4           8
     5           7
     6           9
     7           8
     8           7
     9           9
     10         25
     11         13
     12         24
     13         10
     14         13
```

```
TechSkills.index = TechSkills['reason']
TechSkills = TechSkills.sort_values(by='frequency', ascending=False)


TechSkills["cumulativePercentage"] = TechSkills["frequency"].cumsum()/TechSkills["frequency"]
TechSkills["cumulativePercentage"]=TechSkills["cumulativePercentage"].apply(lambda x: round(x
print(TechSkills)
```

```
                                   reason  \
reason
Google Drive                 Google Drive
Microsoft Office          Microsoft Office
Microsoft Excel            Microsoft Excel
Microsoft Project        Microsoft Project
Microsoft PowerPoint  Microsoft PowerPoint
Microsoft Project        Microsoft Project
Microsoft PowerPoint  Microsoft PowerPoint
Microsoft Office          Microsoft Office
Microsoft Visio            Microsoft Visio
Google Docs                 Google Docs
Microsoft Outlook        Microsoft Outlook
Microsoft SharePoint  Microsoft SharePoint
Google AdWords             Google AdWords
Microsoft SQL Server  Microsoft SQL Server
Google Analytics          Google Analytics

                                                    description  frequency  \
reason
Google Drive                              Office suite software         25
Microsoft Office                          Office suite software         24
Microsoft Excel                            Spreadsheet software         13
Microsoft Project                    Project management software         13
Microsoft PowerPoint                      Presentation software         10
Microsoft Project                    Project management software         10
Microsoft PowerPoint                      Presentation software         10
Microsoft Office                          Office suite software          9
Microsoft Visio               Graphics or photo imaging software          9
Google Docs                              Word processing software          9
Microsoft Outlook                        Electronic mail software          8
Microsoft SharePoint                 Project management software          8
Google AdWords                      Sales and marketing software          8
Microsoft SQL Server  Data base user interface and query software          7
Google Analytics                           Data mining software          7

                      cumulativePercentage
reason
Google Drive                         14.71
Microsoft Office                     28.82
Microsoft Excel                      36.47
Microsoft Project                    44.12
Microsoft PowerPoint                 50.00
Microsoft Project                    55.88
Microsoft PowerPoint                 61.76
Microsoft Office                     67.06
Microsoft Visio                      72.35
Google Docs                          77.65
Microsoft Outlook                    82.35
Microsoft SharePoint                 87.06
Google AdWords                       91.76
Microsoft SQL Server                 95.88
Google Analytics                    100.00
```

```
fig, ax =plt.subplots()
```

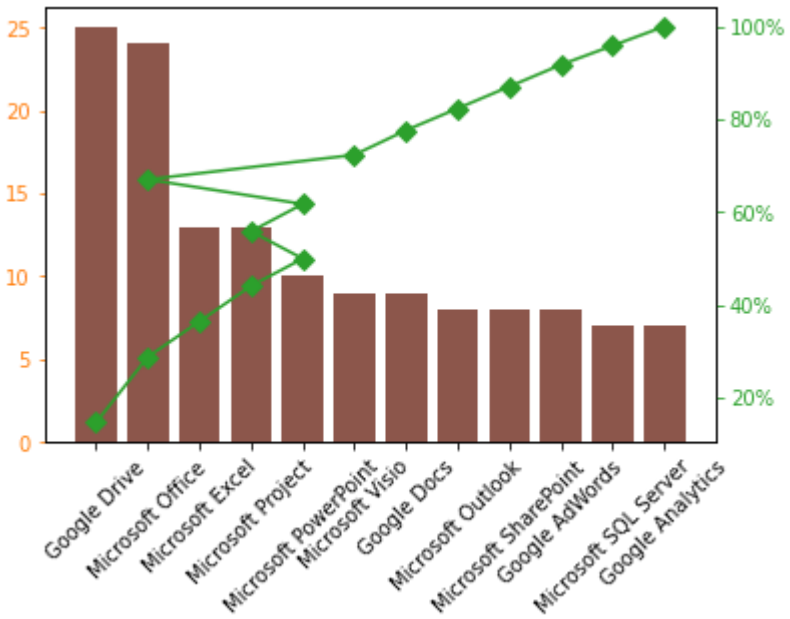
```
ax.bar(TechSkills.index, TechSkills["frequency"], color="C5")

ax.set_xticklabels(TechSkills['reason'], rotation=45)


ax2 = ax.twinx()
ax2.plot(TechSkills.index, TechSkills["cumulativePercentage"], color = "C2", marker="D", ms=7
ax2.yaxis.set_major_formatter(PercentFormatter())

ax.tick_params(axis="y",colors="C1")
ax2.tick_params(axis="y",colors="C2")
for index, v in TechSkills.iterrows():
  label=round(v['cumulativePercentage'],1)


plt.show()
```



New Section

New Section

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