EDA Implementation with the help of Automated EDA Tools:-

In [1]: # importing the data sets
import pandas as pd
df=pd.read_csv(r"C:\Users\Mukul\Downloads\googleplaystore.csv")

In [2]: df.head() # top 5 datasets

Out[2]:

	Арр	Category	Rating	Reviews	Size	Installs	Туре	Price	Content Rating	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	Everyone	,
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	Everyone	Des
2	U Launcher Lite – FREE Live Cool Themes, Hide	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	Everyone	ļ
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	Teen	ļ
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	Everyone	Desiç
4										•

In [3]: df.tail() #last 5 datasets

Out[3]:

	Арр	Category	Rating	Reviews	Size	Installs	Type	Price	1
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	Е
10838	Parkinson Exercices FR	MEDICAL	NaN	3	9.5M	1,000+	Free	0	Ε
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

Performing the EDA with help of Pandas-

1 Profiling AutomatedEDA Tools

```
In [4]: import pandas as pd
    from pandas_profiling import ProfileReport
    profile = ProfileReport(df,title='Report')
    profile
```

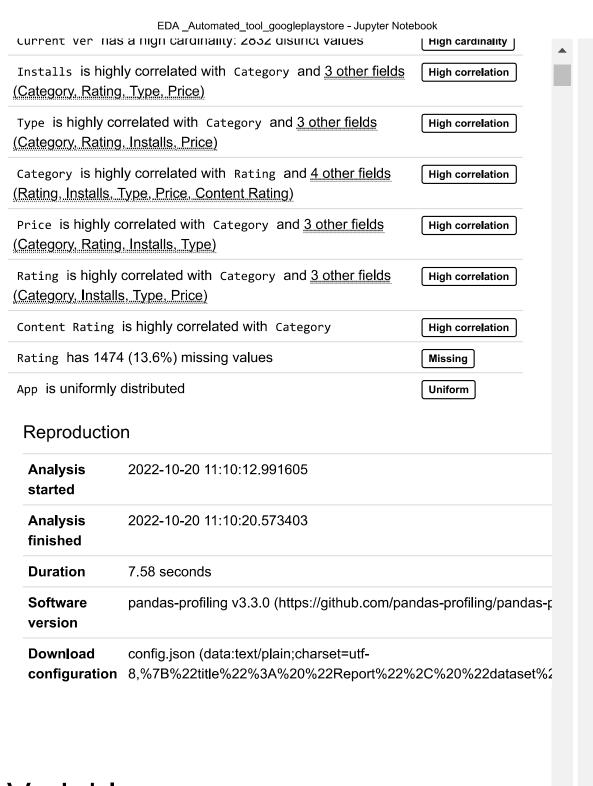
Summarize dataset: 29/29 [00:07<00:00, 2.63it/s,

100% Completed]

Generate report structure: 1/1 [00:04<00:00,

100% 4.39s/it]

Render HTML: 100% 1/1 [00:01<00:00, 1.50s/it]



Variables

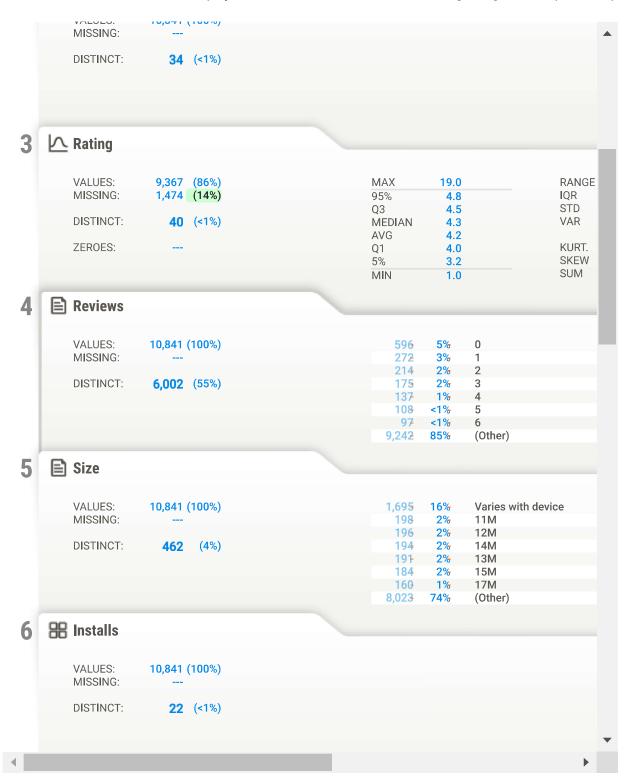
Out[4]:

2. Performance EDA with the helpof Sweetviz Automated Tools

```
In [5]: import sweetviz as sv
analyze_report = sv.analyze(df)
analyze_report.show_notebook()
```

Done! Use 'show' commands to display/save.

[100%] 00:00 -> (00:00 left)



3. Performance EDA with the help of Autoviz

Automated Tools

```
In [6]:
        pip install autoviz
        Requirement already satisfied: autoviz in c:\users\mukul\anaconda3\lib\site-p
        ackages (0.1.55)
        Requirement already satisfied: matplotlib>=3.3.3 in c:\users\mukul\anaconda3
        \lib\site-packages (from autoviz) (3.5.1)
        Requirement already satisfied: hvplot>=0.7.3 in c:\users\mukul\anaconda3\lib
        \site-packages (from autoviz) (0.7.3)
        Requirement already satisfied: seaborn>=0.11.1 in c:\users\mukul\anaconda3\li
        b\site-packages (from autoviz) (0.11.2)
        Requirement already satisfied: holoviews>=1.14.6 in c:\users\mukul\anaconda3
        \lib\site-packages (from autoviz) (1.14.8)
        Requirement already satisfied: xlrd in c:\users\mukul\anaconda3\lib\site-pack
        ages (from autoviz) (2.0.1)
        Requirement already satisfied: ipython in c:\users\mukul\anaconda3\lib\site-p
        ackages (from autoviz) (8.2.0)
        Requirement already satisfied: pyamg in c:\users\mukul\anaconda3\lib\site-pac
        kages (from autoviz) (4.2.3)
        Requirement already satisfied: panel~=0.12.6 in c:\users\mukul\anaconda3\lib
        \site-packages (from autoviz) (0.12.7)
        Requirement already satisfied: fsspec>=0.8.3 in c:\users\mukul\anaconda3\lib
        from autoviz.AutoViz Class import AutoViz Class
In [7]:
        AV = AutoViz Class()
        df av=AV.AutoViz(r'C:\Users\Mukul\Downloads\googleplaystore.csv')
```



4. Performance EDA with the help of Dtale **Automated Tools**

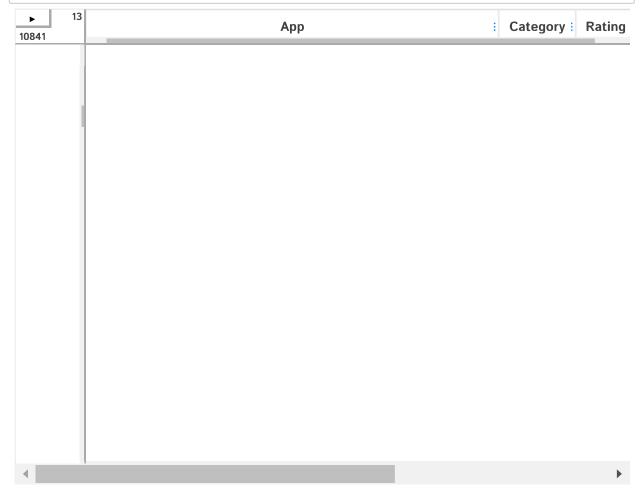
In [23]: !pip install dtale

```
Requirement already satisfied: dtale in c:\users\mukul\anaconda3\lib\site-pac
kages (2.8.1)
Requirement already satisfied: cycler in c:\users\mukul\anaconda3\lib\site-pa
ckages (from dtale) (0.11.0)
Requirement already satisfied: statsmodels in c:\users\mukul\anaconda3\lib\si
te-packages (from dtale) (0.13.2)
Requirement already satisfied: openpyxl in c:\users\mukul\anaconda3\lib\site-
packages (from dtale) (3.0.9)
Requirement already satisfied: matplotlib in c:\users\mukul\anaconda3\lib\sit
e-packages (from dtale) (3.5.1)
Requirement already satisfied: networkx in c:\users\mukul\anaconda3\lib\site-
packages (from dtale) (2.7.1)
Requirement already satisfied: xlrd in c:\users\mukul\anaconda3\lib\site-pack
ages (from dtale) (2.0.1)
Requirement already satisfied: strsimpy in c:\users\mukul\anaconda3\lib\site-
packages (from dtale) (0.2.1)
Requirement already satisfied: plotly>=5.0.0 in c:\users\mukul\anaconda3\lib
\site-packages (from dtale) (5.6.0)
Requirement already satisfied: missingno<=0.4.2 in c:\users\mukul\anaconda3\l
ib\site-packages (from dtale) (0.4.2)
Requirement already satisfied: future>=0.14.0 in c:\users\mukul\anaconda3\lib
\site-packages (from dtale) (0.18.2)
Requirement already satisfied: squarify in c:\users\mukul\anaconda3\lib\site-
packages (from dtale) (0.4.3)
Requirement already satisfied: Flask in c:\users\mukul\anaconda3\lib\site-pac
kages (from dtale) (2.2.2)
Requirement already satisfied: dash-bootstrap-components in c:\users\mukul\an
aconda3\lib\site-packages (from dtale) (1.2.1)
Requirement already satisfied: seaborn in c:\users\mukul\anaconda3\lib\site-p
ackages (from dtale) (0.11.2)
Requirement already satisfied: et-xmlfile in c:\users\mukul\anaconda3\lib\sit
e-packages (from dtale) (1.1.0)
Requirement already satisfied: kaleido in c:\users\mukul\anaconda3\lib\site-p
ackages (from dtale) (0.2.1)
Requirement already satisfied: itsdangerous in c:\users\mukul\anaconda3\lib\s
ite-packages (from dtale) (2.0.1)
Requirement already satisfied: Flask-Compress in c:\users\mukul\anaconda3\lib
\site-packages (from dtale) (1.13)
Requirement already satisfied: dash>=2.0.0 in c:\users\mukul\anaconda3\lib\si
te-packages (from dtale) (2.6.2)
Requirement already satisfied: numpy in c:\users\mukul\anaconda3\lib\site-pac
kages (from dtale) (1.21.5)
Requirement already satisfied: xarray in c:\users\mukul\anaconda3\lib\site-pa
ckages (from dtale) (0.20.1)
Requirement already satisfied: lz4 in c:\users\mukul\anaconda3\lib\site-packa
ges (from dtale) (4.0.2)
Requirement already satisfied: dash-daq in c:\users\mukul\anaconda3\lib\site-
packages (from dtale) (0.5.0)
Requirement already satisfied: requests in c:\users\mukul\anaconda3\lib\site-
packages (from dtale) (2.27.1)
Requirement already satisfied: scipy in c:\users\mukul\anaconda3\lib\site-pac
kages (from dtale) (1.9.3)
Requirement already satisfied: pandas in c:\users\mukul\anaconda3\lib\site-pa
ckages (from dtale) (1.4.2)
```

```
EDA _Automated_tool_googleplaystore - Jupyter Notebook
Requirement already satisfied: scikit-learn in c:\users\mukul\anaconda3\lib\s
ite-packages (from dtale) (1.0.2)
Requirement already satisfied: six in c:\users\mukul\anaconda3\lib\site-packa
ges (from dtale) (1.16.0)
Requirement already satisfied: dash-colorscales in c:\users\mukul\anaconda3\l
ib\site-packages (from dtale) (0.0.4)
Requirement already satisfied: flask-ngrok in c:\users\mukul\anaconda3\lib\si
te-packages (from dtale) (0.0.25)
Requirement already satisfied: certifi in c:\users\mukul\anaconda3\lib\site-p
ackages (from dtale) (2021.10.8)
Requirement already satisfied: dash-core-components==2.0.0 in c:\users\mukul
\anaconda3\lib\site-packages (from dash>=2.0.0->dtale) (2.0.0)
Requirement already satisfied: dash-html-components==2.0.0 in c:\users\mukul
\anaconda3\lib\site-packages (from dash>=2.0.0->dtale) (2.0.0)
Requirement already satisfied: dash-table==5.0.0 in c:\users\mukul\anaconda3
\lib\site-packages (from dash>=2.0.0->dtale) (5.0.0)
Requirement already satisfied: Werkzeug>=2.2.2 in c:\users\mukul\anaconda3\li
b\site-packages (from Flask->dtale) (2.2.2)
Requirement already satisfied: Jinja2>=3.0 in c:\users\mukul\anaconda3\lib\si
te-packages (from Flask->dtale) (3.0.3)
Requirement already satisfied: importlib-metadata>=3.6.0 in c:\users\mukul\an
aconda3\lib\site-packages (from Flask->dtale) (4.11.3)
Requirement already satisfied: click>=8.0 in c:\users\mukul\anaconda3\lib\sit
e-packages (from Flask->dtale) (8.0.4)
Requirement already satisfied: colorama in c:\users\mukul\anaconda3\lib\site-
packages (from click>=8.0->Flask->dtale) (0.4.4)
Requirement already satisfied: zipp>=0.5 in c:\users\mukul\anaconda3\lib\site
-packages (from importlib-metadata>=3.6.0->Flask->dtale) (3.7.0)
Requirement already satisfied: MarkupSafe>=2.0 in c:\users\mukul\anaconda3\li
b\site-packages (from Jinja2>=3.0->Flask->dtale) (2.1.1)
Requirement already satisfied: tenacity>=6.2.0 in c:\users\mukul\anaconda3\li
b\site-packages (from plotly>=5.0.0->dtale) (8.0.1)
Requirement already satisfied: brotli in c:\users\mukul\anaconda3\lib\site-pa
ckages (from Flask-Compress->dtale) (1.0.9)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\mukul\anaconda3
\lib\site-packages (from matplotlib->dtale) (1.3.2)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\mukul\anaconda3
\lib\site-packages (from matplotlib->dtale) (4.25.0)
Requirement already satisfied: pyparsing>=2.2.1 in c:\users\mukul\anaconda3\l
ib\site-packages (from matplotlib->dtale) (3.0.4)
Requirement already satisfied: pillow>=6.2.0 in c:\users\mukul\anaconda3\lib
\site-packages (from matplotlib->dtale) (9.0.1)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\mukul\anacond
a3\lib\site-packages (from matplotlib->dtale) (2.8.2)
Requirement already satisfied: packaging>=20.0 in c:\users\mukul\anaconda3\li
b\site-packages (from matplotlib->dtale) (21.3)
Requirement already satisfied: pytz>=2020.1 in c:\users\mukul\anaconda3\lib\s
ite-packages (from pandas->dtale) (2021.3)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\mukul\anacon
da3\lib\site-packages (from requests->dtale) (1.26.9)
Requirement already satisfied: charset-normalizer~=2.0.0 in c:\users\mukul\an
aconda3\lib\site-packages (from requests->dtale) (2.0.4)
Requirement already satisfied: idna<4,>=2.5 in c:\users\mukul\anaconda3\lib\s
ite-packages (from requests->dtale) (3.3)
Requirement already satisfied: threadpoolctl>=2.0.0 in c:\users\mukul\anacond
a3\lib\site-packages (from scikit-learn->dtale) (2.2.0)
Requirement already satisfied: joblib>=0.11 in c:\users\mukul\anaconda3\lib\s
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ite-packages (from scikit-learn->dtale) (1.1.0)
Requirement already satisfied: patsy>=0.5.2 in c:\users\mukul\anaconda3\lib\s
ite-packages (from statsmodels->dtale) (0.5.2)





Out[19]:

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