```
pip install pandas_profiling
```

```
    Collecting htmlmin==0.1.12 (from ydata-profiling->pandas_profiling)
      Downloading htmlmin-0.1.12.tar.gz (19 kB)
      Preparing metadata (setup.py) ... done
    Collecting phik<0.13,>=0.11.1 (from ydata-profiling->pandas_profiling)
      Downloading phik-0.12.3-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (679 kB)
      ──────────────────────────────────── 679.5/679.5 kB 44.6 MB/s eta 0:00:00
    Requirement already satisfied: requests<3,>=2.24.0 in /usr/local/lib/python3.10/dist-packages (from ydata-profiling->pandas_prof
    Requirement already satisfied: tqdm<5,>=4.48.2 in /usr/local/lib/python3.10/dist-packages (from ydata-profiling->pandas_profilin
    Requirement already satisfied: seaborn<0.13,>=0.10.1 in /usr/local/lib/python3.10/dist-packages (from ydata-profiling->pandas_pr
    Collecting multimethod<2,>=1.4 (from ydata-profiling->pandas_profiling)
      Downloading multimethod-1.9.1-py3-none-any.whl (10 kB)
    Requirement already satisfied: statsmodels<1,>=0.13.2 in /usr/local/lib/python3.10/dist-packages (from ydata-profiling->pandas_p
    Collecting typeguard<3,>=2.13.2 (from ydata-profiling->pandas_profiling)
      Downloading typeguard-2.13.3-py3-none-any.whl (17 kB)
    Collecting imagehash==4.3.1 (from ydata-profiling->pandas_profiling)
      Downloading ImageHash-4.3.1-py2.py3-none-any.whl (296 kB)
      ──────────────────────────────────── 296.5/296.5 kB 31.3 MB/s eta 0:00:00
    Collecting wordcloud>=1.9.1 (from ydata-profiling->pandas_profiling)
      Downloading wordcloud-1.9.2-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (455 kB)
      ──────────────────────────────────── 455.4/455.4 kB 45.8 MB/s eta 0:00:00
    Collecting dacite>=1.8 (from ydata-profiling->pandas_profiling)
      Downloading dacite-1.8.1-py3-none-any.whl (14 kB)
    Requirement already satisfied: PyWavelets in /usr/local/lib/python3.10/dist-packages (from imagehash==4.3.1->ydata-profiling->pa
    Requirement already satisfied: pillow in /usr/local/lib/python3.10/dist-packages (from imagehash==4.3.1->ydata-profiling->pandas
    Requirement already satisfied: attrs>=19.3.0 in /usr/local/lib/python3.10/dist-packages (from visions[type_image_path]==0.7.5->y
    Requirement already satisfied: networkx>=2.4 in /usr/local/lib/python3.10/dist-packages (from visions[type_image_path]==0.7.5->y
    Collecting tangled-up-in-unicode>=0.0.4 (from visions[type_image_path]==0.7.5->ydata-profiling->pandas_profiling)
      Downloading tangled_up_in_unicode-0.2.0-py3-none-any.whl (4.7 MB)
      ──────────────────────────────────── 4.7/4.7 MB 89.5 MB/s eta 0:00:00
    Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.10/dist-packages (from jinja2<3.2,>=2.11.1->ydata-profi
    Requirement already satisfied: contourpy>=1.0.1 in /usr/local/lib/python3.10/dist-packages (from matplotlib<4,>=3.2->ydata-profi
    Requirement already satisfied: cycler>=0.10 in /usr/local/lib/python3.10/dist-packages (from matplotlib<4,>=3.2->ydata-profiling
    Requirement already satisfied: fonttools>=4.22.0 in /usr/local/lib/python3.10/dist-packages (from matplotlib<4,>=3.2->ydata-prof
    Requirement already satisfied: kiwisolver>=1.0.1 in /usr/local/lib/python3.10/dist-packages (from matplotlib<4,>=3.2->ydata-prof
    Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.10/dist-packages (from matplotlib<4,>=3.2->ydata-profil
    Requirement already satisfied: pyparsing>=2.3.1 in /usr/local/lib/python3.10/dist-packages (from matplotlib<4,>=3.2->ydata-profi
    Requirement already satisfied: python-dateutil>=2.7 in /usr/local/lib/python3.10/dist-packages (from matplotlib<4,>=3.2->ydata-p
    Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-packages (from pandas!=1.4.0,<2.1,>1.1->ydata-prof
    Requirement already satisfied: joblib>=0.14.1 in /usr/local/lib/python3.10/dist-packages (from phik<0.13,>=0.11.1->ydata-profili
    Requirement already satisfied: typing-extensions>=4.2.0 in /usr/local/lib/python3.10/dist-packages (from pydantic<2,>=1.8.1->yda
    Requirement already satisfied: urllib3<1.27,>=1.21.1 in /usr/local/lib/python3.10/dist-packages (from requests<3,>=2.24.0->ydata
    Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.10/dist-packages (from requests<3,>=2.24.0->ydata-pr
    Requirement already satisfied: charset-normalizer~=2.0.0 in /usr/local/lib/python3.10/dist-packages (from requests<3,>=2.24.0->y
    Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (from requests<3,>=2.24.0->ydata-profilin
    Requirement already satisfied: patsy>=0.5.2 in /usr/local/lib/python3.10/dist-packages (from statsmodels<1,>=0.13.2->ydata-profi
    Requirement already satisfied: six in /usr/local/lib/python3.10/dist-packages (from patsy>=0.5.2->statsmodels<1,>=0.13.2->ydata-
    Building wheels for collected packages: htmlmin
      Building wheel for htmlmin (setup.py) ... done
      Created wheel for htmlmin: filename=htmlmin-0.1.12-py3-none-any.whl size=27081 sha256=3907bd516eb9c641ced645c03e4cb0855709d89d
      Stored in directory: /root/.cache/pip/wheels/dd/91/29/a79cecb328d01739e64017b6fb9a1ab9d8cb1853098ec5966d
    Successfully built htmlmin
    Installing collected packages: htmlmin, typeguard, tangled-up-in-unicode, multimethod, dacite, imagehash, wordcloud, visions, ph
      Attempting uninstall: wordcloud
        Found existing installation: wordcloud 1.8.2.2
        Uninstalling wordcloud-1.8.2.2:
          Successfully uninstalled wordcloud-1.8.2.2
    Successfully installed dacite-1.8.1 htmlmin-0.1.12 imagehash-4.3.1 multimethod-1.9.1 pandas_profiling-3.6.6 phik-0.12.3 tangled-
```

```python
# importing packages
import pandas as pd
import pandas_profiling as pp
```

```python
# dictionary of data
dct = {'ID': {0: 23, 1: 43, 2: 12, 3: 13,
        4: 67, 5: 89, 6: 90, 7: 56,
        8: 34},
   'Name': {0: 'Ram', 1: 'Deep', 2: 'Yash',
        3: 'Aman', 4: 'Arjun', 5: 'Aditya',
        6: 'Divya', 7: 'Chalsea',
        8: 'Akash' },
   'Marks': {0: 89, 1: 97, 2: 45, 3: 78,
        4: 56, 5: 76, 6: 100, 7: 87,
        8: 81},
   'Grade': {0: 'B', 1: 'A', 2: 'F', 3: 'C',
        4: 'E', 5: 'C', 6: 'A', 7: 'B',
        8: 'B'}
   }
```

```python
# forming dataframe and printing
data = pd.DataFrame(dct)
print(data)
```

```
# forming ProfileReport and save
# as output.html file
profile = pp.ProfileReport(data)
profile.to_file("output.html")
```

```
     ID     Name  Marks Grade
0    23      Ram     89     B
1    43     Deep     97     A
2    12     Yash     45     F
3    13     Aman     78     C
4    67    Arjun     56     E
5    89   Aditya     76     C
6    90    Divya    100     A
7    56  Chalsea     87     B
8    34    Akash     81     B
<ipython-input-3-b220b069816b>:3: DeprecationWarning: `import pandas_profiling` is going to be deprecated by April 1st. Please use
  import pandas_profiling as pp
```

Summarize dataset: 100%	17/17 [00:03<00:00, 3.63it/s, Completed]
Generate report structure: 100%	1/1 [00:02<00:00, 2.31s/it]
Render HTML: 100%	1/1 [00:00<00:00, 2.65it/s]
Export report to file: 100%	1/1 [00:00<00:00, 37.54it/s]

```
profile
```

Overview

Dataset statistics

Number of variables	4
Number of observations	9
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	660.0 B
Average record size in memory	73.3 B

Variable types

Numeric	2
Categorical	2

Alerts

`ID` is highly overall correlated with `Name`	High correlation
`Marks` is highly overall correlated with `Name` and 1 other fields (Name, Grade)	High correlation
`Name` is highly overall correlated with `ID` and 2 other fields (ID, Marks, Grade)	High correlation
`Grade` is highly overall correlated with `Marks` and 1 other fields (Marks, Name)	High correlation
`Name` is uniformly distributed	Uniform
`ID` has unique values	Unique
`Name` has unique values	Unique

✓ 0s   completed at 12:15 PM   ● ✕