In [22]:
```
import pandas as pd
import matplotlib.pyplot as plt
```

In [24]:
```
#read a data from the csv file
pokemon=pd.read_csv('pokedex_(Update_04.21).csv')
print(pokemon)
```

```
      Unnamed: 0  pokedex_number                 name german_name  \
0              0               1            Bulbasaur     Bisasam
1              1               2              Ivysaur   Bisaknosp
2              2               3             Venusaur    Bisaflor
3              3               3        Mega Venusaur    Bisaflor
4              4               4           Charmander    Glumanda
...          ...             ...                  ...         ...
1040        1040             896            Glastrier    Polaross
1041        1041             897            Spectrier  Phantoross
1042        1042             898              Calyrex   Coronospa
1043        1043             898    Calyrex Ice Rider   Coronospa
1044        1044             898  Calyrex Shadow Rider   Coronospa

           japanese_name  generation         status              species
\
0     フシギダネ (Fushigidane)           1         Normal         Seed Poké
mon
1      フシギソウ (Fushigisou)           1         Normal         Seed Poké
mon
2     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
3     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
4         ヒトカゲ (Hitokage)           1         Normal       Lizard Pokém
on
...                    ...         ...            ...                  ...
1040   ブリザポス (Burizaposu)           8  Sub Legendary   Wild Horse Poké
mon
1041    レイスポス (Reisuposu)           8  Sub Legendary  Swift Horse Poké
mon
1042      バドレックス (Budrex)           8      Legendary         King Pok
émon
1043      バドレックス (Budrex)           8      Legendary    High King Pok
émon
1044      バドレックス (Budrex)           8      Legendary    High King Pok
émon

      type_number   type_1  ... against_ground  against_flying  \
0               2    Grass  ...            1.0             2.0
1               2    Grass  ...            1.0             2.0
2               2    Grass  ...            1.0             2.0
3               2    Grass  ...            1.0             2.0
4               1     Fire  ...            2.0             1.0
...           ...      ...  ...            ...             ...
1040            1      Ice  ...            1.0             1.0
1041            1    Ghost  ...            1.0             1.0
1042            2  Psychic  ...            0.5             2.0
1043            2  Psychic  ...            1.0             1.0
1044            2  Psychic  ...            1.0             1.0

      against_psychic  against_bug against_rock against_ghost against_drag
on  \
0                 2.0          1.0          1.0           1.0
1.0
1                 2.0          1.0          1.0           1.0
1.0
2                 2.0          1.0          1.0           1.0
1.0
3                 2.0          1.0          1.0           1.0
1.0
4                 1.0          0.5          2.0           1.0
```

```
1.0
...              ...          ...          ...          ...
...
1040             1.0          1.0          2.0          1.0
1.0
1041             1.0          0.5          1.0          2.0
1.0
1042             0.5          4.0          1.0          2.0
1.0
1043             0.5          2.0          2.0          2.0
1.0
1044             0.5          1.0          1.0          4.0
1.0

      against_dark  against_steel  against_fairy
0              1.0            1.0            0.5
1              1.0            1.0            0.5
2              1.0            1.0            0.5
3              1.0            1.0            0.5
4              1.0            0.5            0.5
...            ...            ...            ...
1040           1.0            2.0            1.0
1041           2.0            1.0            1.0
1042           2.0            1.0            1.0
1043           2.0            2.0            1.0
1044           4.0            1.0            1.0

[1045 rows x 51 columns]
```

In [7]:
```
#fetch the record from the csv file
print(pokemon.loc[323])
```

```
Unnamed: 0                    323
pokedex_number                265
name                      Wurmple
german_name               Waumpel
japanese_name       ケムッソ (Kemusso)
generation                      3
status                     Normal
species               Worm Pokémon
type_number                     1
type_1                        Bug
type_2                        NaN
height_m                      0.3
weight_kg                     3.6
abilities_number                2
ability_1              Shield Dust
ability_2                     NaN
ability_hidden            Run Away
total_points                  195
hp                             45
attack                         45
defense                        35
sp_attack                      20
sp_defense                     30
speed                          20
catch_rate                  255.0
base_friendship              70.0
base_experience              56.0
growth_rate            Medium Fast
egg_type_number                 1
egg_type_1                    Bug
egg_type_2                    NaN
percentage_male              50.0
egg_cycles                   15.0
against_normal                1.0
against_fire                  2.0
against_water                 1.0
against_electric              1.0
against_grass                 0.5
against_ice                   1.0
against_fight                 0.5
against_poison                1.0
against_ground                0.5
against_flying                2.0
against_psychic               1.0
against_bug                   1.0
against_rock                  2.0
against_ghost                 1.0
against_dragon                1.0
against_dark                  1.0
against_steel                 1.0
against_fairy                 1.0
Name: 323, dtype: object
```

In [8]:
```
#print the sepecific column from the csv file
print(pokemon['name'])
```

```
0                  Bulbasaur
1                    Ivysaur
2                   Venusaur
3               Mega Venusaur
4                  Charmander
                   ...
1040               Glastrier
1041               Spectrier
1042                 Calyrex
1043       Calyrex Ice Rider
1044    Calyrex Shadow Rider
Name: name, Length: 1045, dtype: object
```

In [9]:

```
# print the all record from the csv file
print(pokemon)
```

```
      Unnamed: 0  pokedex_number                 name german_name  \
0              0               1            Bulbasaur     Bisasam
1              1               2              Ivysaur   Bisaknosp
2              2               3             Venusaur    Bisaflor
3              3               3        Mega Venusaur    Bisaflor
4              4               4           Charmander    Glumanda
...          ...             ...                  ...         ...
1040        1040             896            Glastrier    Polaross
1041        1041             897            Spectrier  Phantoross
1042        1042             898              Calyrex   Coronospa
1043        1043             898    Calyrex Ice Rider   Coronospa
1044        1044             898  Calyrex Shadow Rider   Coronospa

           japanese_name  generation         status              species
\
0     フシギダネ (Fushigidane)           1         Normal         Seed Poké
mon
1      フシギソウ (Fushigisou)           1         Normal         Seed Poké
mon
2     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
3     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
4         ヒトカゲ (Hitokage)           1         Normal       Lizard Pokém
on
...                    ...         ...            ...                  ...
1040   ブリザポス (Burizaposu)           8  Sub Legendary   Wild Horse Poké
mon
1041    レイスポス (Reisuposu)           8  Sub Legendary  Swift Horse Poké
mon
1042      バドレックス (Budrex)           8      Legendary         King Pok
émon
1043      バドレックス (Budrex)           8      Legendary    High King Pok
émon
1044      バドレックス (Budrex)           8      Legendary    High King Pok
émon

      type_number   type_1  ... against_ground  against_flying  \
0               2    Grass  ...            1.0             2.0
1               2    Grass  ...            1.0             2.0
2               2    Grass  ...            1.0             2.0
3               2    Grass  ...            1.0             2.0
4               1     Fire  ...            2.0             1.0
...           ...      ...  ...            ...             ...
1040            1      Ice  ...            1.0             1.0
1041            1    Ghost  ...            1.0             1.0
1042            2  Psychic  ...            0.5             2.0
1043            2  Psychic  ...            1.0             1.0
1044            2  Psychic  ...            1.0             1.0

      against_psychic  against_bug against_rock against_ghost against_drag
on  \
0                 2.0          1.0          1.0           1.0
1.0
1                 2.0          1.0          1.0           1.0
1.0
2                 2.0          1.0          1.0           1.0
1.0
3                 2.0          1.0          1.0           1.0
1.0
4                 1.0          0.5          2.0           1.0
```

```
1.0
...              ...          ...          ...          ...
...
1040             1.0          1.0          2.0          1.0
1.0
1041             1.0          0.5          1.0          2.0
1.0
1042             0.5          4.0          1.0          2.0
1.0
1043             0.5          2.0          2.0          2.0
1.0
1044             0.5          1.0          1.0          4.0
1.0

      against_dark  against_steel  against_fairy
0              1.0            1.0            0.5
1              1.0            1.0            0.5
2              1.0            1.0            0.5
3              1.0            1.0            0.5
4              1.0            0.5            0.5
...            ...            ...            ...
1040           1.0            2.0            1.0
1041           2.0            1.0            1.0
1042           2.0            1.0            1.0
1043           2.0            2.0            1.0
1044           4.0            1.0            1.0

[1045 rows x 51 columns]
```

In [10]:
```
#sum the all column
pokemon['Total']=pokemon['against_dark']+pokemon['against_steel']+pokemon['
print(pokemon)
```

```
      Unnamed: 0  pokedex_number                 name german_name  \
0              0               1            Bulbasaur     Bisasam
1              1               2              Ivysaur   Bisaknosp
2              2               3             Venusaur    Bisaflor
3              3               3        Mega Venusaur    Bisaflor
4              4               4           Charmander    Glumanda
...          ...             ...                  ...         ...
1040        1040             896            Glastrier    Polaross
1041        1041             897            Spectrier  Phantoross
1042        1042             898              Calyrex   Coronospa
1043        1043             898    Calyrex Ice Rider   Coronospa
1044        1044             898  Calyrex Shadow Rider   Coronospa

           japanese_name  generation         status              species
\
0     フシギダネ (Fushigidane)           1         Normal         Seed Poké
mon
1      フシギソウ (Fushigisou)           1         Normal         Seed Poké
mon
2     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
3     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
4         ヒトカゲ (Hitokage)           1         Normal       Lizard Pokém
on
...                    ...         ...            ...                  ...
1040   ブリザポス (Burizaposu)           8  Sub Legendary   Wild Horse Poké
mon
1041    レイスポス (Reisuposu)           8  Sub Legendary  Swift Horse Poké
mon
1042      バドレックス (Budrex)           8      Legendary         King Pok
émon
1043      バドレックス (Budrex)           8      Legendary    High King Pok
émon
1044      バドレックス (Budrex)           8      Legendary    High King Pok
émon

      type_number   type_1  ... against_flying  against_psychic  against_b
ug  \
0               2    Grass  ...            2.0              2.0
1.0
1               2    Grass  ...            2.0              2.0
1.0
2               2    Grass  ...            2.0              2.0
1.0
3               2    Grass  ...            2.0              2.0
1.0
4               1     Fire  ...            1.0              1.0
0.5
...           ...      ...  ...            ...              ...
...
1040            1      Ice  ...            1.0              1.0
1.0
1041            1    Ghost  ...            1.0              1.0
0.5
1042            2  Psychic  ...            2.0              0.5
4.0
1043            2  Psychic  ...            1.0              0.5
2.0
1044            2  Psychic  ...            1.0              0.5
1.0
```

```
      against_rock against_ghost against_dragon against_dark  against_stee
l  \
0              1.0           1.0            1.0          1.0            1.
0
1              1.0           1.0            1.0          1.0            1.
0
2              1.0           1.0            1.0          1.0            1.
0
3              1.0           1.0            1.0          1.0            1.
0
4              2.0           1.0            1.0          1.0            0.
5
...            ...           ...            ...          ...
...
1040           2.0           1.0            1.0          1.0            2.
0
1041           1.0           2.0            1.0          2.0            1.
0
1042           1.0           2.0            1.0          2.0            1.
0
1043           2.0           2.0            1.0          2.0            2.
0
1044           1.0           4.0            1.0          4.0            1.
0

      against_fairy  Total
0               0.5    3.5
1               0.5    3.5
2               0.5    3.5
3               0.5    3.5
4               0.5    3.0
...             ...    ...
1040            1.0    5.0
1041            1.0    6.0
1042            1.0    6.0
1043            1.0    7.0
1044            1.0   10.0

[1045 rows x 52 columns]
```

In [12]:
```
#create a new column name avg in csv file
pokemon['Avg']=pokemon['Total']/4
print(pokemon)
```

```
      Unnamed: 0  pokedex_number                 name german_name  \
0              0               1            Bulbasaur     Bisasam
1              1               2              Ivysaur   Bisaknosp
2              2               3             Venusaur    Bisaflor
3              3               3        Mega Venusaur    Bisaflor
4              4               4           Charmander    Glumanda
...          ...             ...                  ...         ...
1040        1040             896            Glastrier    Polaross
1041        1041             897            Spectrier  Phantoross
1042        1042             898              Calyrex   Coronospa
1043        1043             898    Calyrex Ice Rider   Coronospa
1044        1044             898  Calyrex Shadow Rider   Coronospa

           japanese_name  generation         status              species
\
0     フシギダネ (Fushigidane)           1         Normal         Seed Poké
mon
1      フシギソウ (Fushigisou)           1         Normal         Seed Poké
mon
2     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
3     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
4         ヒトカゲ (Hitokage)           1         Normal       Lizard Pokém
on
...                   ...         ...            ...                  ...
1040   ブリザポス (Burizaposu)           8  Sub Legendary   Wild Horse Poké
mon
1041    レイスポス (Reisuposu)           8  Sub Legendary  Swift Horse Poké
mon
1042      バドレックス (Budrex)           8      Legendary         King Pok
émon
1043      バドレックス (Budrex)           8      Legendary    High King Pok
émon
1044      バドレックス (Budrex)           8      Legendary    High King Pok
émon

      type_number   type_1  ... against_psychic  against_bug  against_rock
\
0               2    Grass  ...             2.0          1.0           1.0
1               2    Grass  ...             2.0          1.0           1.0
2               2    Grass  ...             2.0          1.0           1.0
3               2    Grass  ...             2.0          1.0           1.0
4               1     Fire  ...             1.0          0.5           2.0
...           ...      ...  ...             ...          ...           ...
1040            1      Ice  ...             1.0          1.0           2.0
1041            1    Ghost  ...             1.0          0.5           1.0
1042            2  Psychic  ...             0.5          4.0           1.0
1043            2  Psychic  ...             0.5          2.0           2.0
1044            2  Psychic  ...             0.5          1.0           1.0

      against_ghost against_dragon against_dark against_steel  against_fai
ry  \
0               1.0            1.0          1.0           1.0
0.5
1               1.0            1.0          1.0           1.0
0.5
2               1.0            1.0          1.0           1.0
0.5
3               1.0            1.0          1.0           1.0
0.5
```

```
4               1.0           1.0          1.0          0.5
0.5
...             ...           ...          ...          ...
...
1040            1.0           1.0          1.0          2.0
1.0
1041            2.0           1.0          2.0          1.0
1.0
1042            2.0           1.0          2.0          1.0
1.0
1043            2.0           1.0          2.0          2.0
1.0
1044            4.0           1.0          4.0          1.0
1.0

      Total    Avg
0       3.5  0.875
1       3.5  0.875
2       3.5  0.875
3       3.5  0.875
4       3.0  0.750
...     ...    ...
1040    5.0  1.250
1041    6.0  1.500
1042    6.0  1.500
1043    7.0  1.750
1044   10.0  2.500

[1045 rows x 53 columns]
```

In [13]:
```
#create a new csv file
pokemon.to_csv('pokemon.csv')
```

In [39]:
```
#fetch data from new csv file
pokemon=pd.read_csv('pokemon.csv')
pokemon
```

Out[39]:

	Unnamed: 0.1	Unnamed: 0	pokedex_number	name	german_name	japanese_name	g
0	0	0	1	Bulbasaur	Bisasam	フシギダネ (Fushigidane)	
1	1	1	2	Ivysaur	Bisaknosp	フシギソウ (Fushigisou)	
2	2	2	3	Venusaur	Bisaflor	フシギバナ (Fushigibana)	
3	3	3	3	Mega Venusaur	Bisaflor	フシギバナ (Fushigibana)	
4	4	4	4	Charmander	Glumanda	ヒトカゲ (Hitokage)	
...	...	...	...	...	...	...	
1040	1040	1040	896	Glastrier	Polaross	ブリザポス (Burizaposu)	
1041	1041	1041	897	Spectrier	Phantoross	レイスポス (Reisuposu)	
1042	1042	1042	898	Calyrex	Coronospa	バドレックス (Budrex)	
1043	1043	1043	898	Calyrex Ice Rider	Coronospa	バドレックス (Budrex)	
1044	1044	1044	898	Calyrex Shadow Rider	Coronospa	バドレックス (Budrex)	

1045 rows × 54 columns

In [17]:
```
#sort the data in csv file
pokemon.sort_values(['Avg'],ascending=1)
```

Out[17]:

	Unnamed: 0.1	Unnamed: 0	pokedex_number	name	german_name	japanese_name	gen
781	781	781	668	Pyroar	Pyroleo	カエンジシ (Kaenjishi)	
780	780	780	667	Litleo	Leufeo	シシコ (Shishiko)	
279	279	279	228	Houndour	Hunduster	デルビル (Delvil)	
810	810	810	695	Heliolisk	Elezard	エレザード (Elezard)	
809	809	809	694	Helioptile	Eguana	エリキテル (Erikiteru)	
...	...	...	...	...	...	...	
458	458	458	381	Mega Latios	Latios	ラティオス (Latios)	
935	935	935	800	Dawn Wings Necrozma	Necrozma	ネクロズマ (Necrozma)	
844	844	844	720	Hoopa Hoopa Confined	Hoopa	フーパ (Hoopa)	
925	925	925	792	Lunala	Lunala	ルナアーラ (Lunala)	
1044	1044	1044	898	Calyrex Shadow Rider	Coronospa	バドレックス (Budrex)	

1045 rows × 54 columns

In [18]:
```
#first five record from csv file
pokemon.head(5)
```

Out[18]:

	Unnamed: 0.1	Unnamed: 0	pokedex_number	name	german_name	japanese_name	gene
0	0	0	1	Bulbasaur	Bisasam	フシギダネ (Fushigidane)	
1	1	1	2	Ivysaur	Bisaknosp	フシギソウ (Fushigisou)	
2	2	2	3	Venusaur	Bisaflor	フシギバナ (Fushigibana)	
3	3	3	3	Mega Venusaur	Bisaflor	フシギバナ (Fushigibana)	
4	4	4	4	Charmander	Glumanda	ヒトカゲ (Hitokage)	

5 rows × 54 columns

In [19]:
```
#last five record from csv file
pokemon.tail(5)
```

Out[19]:

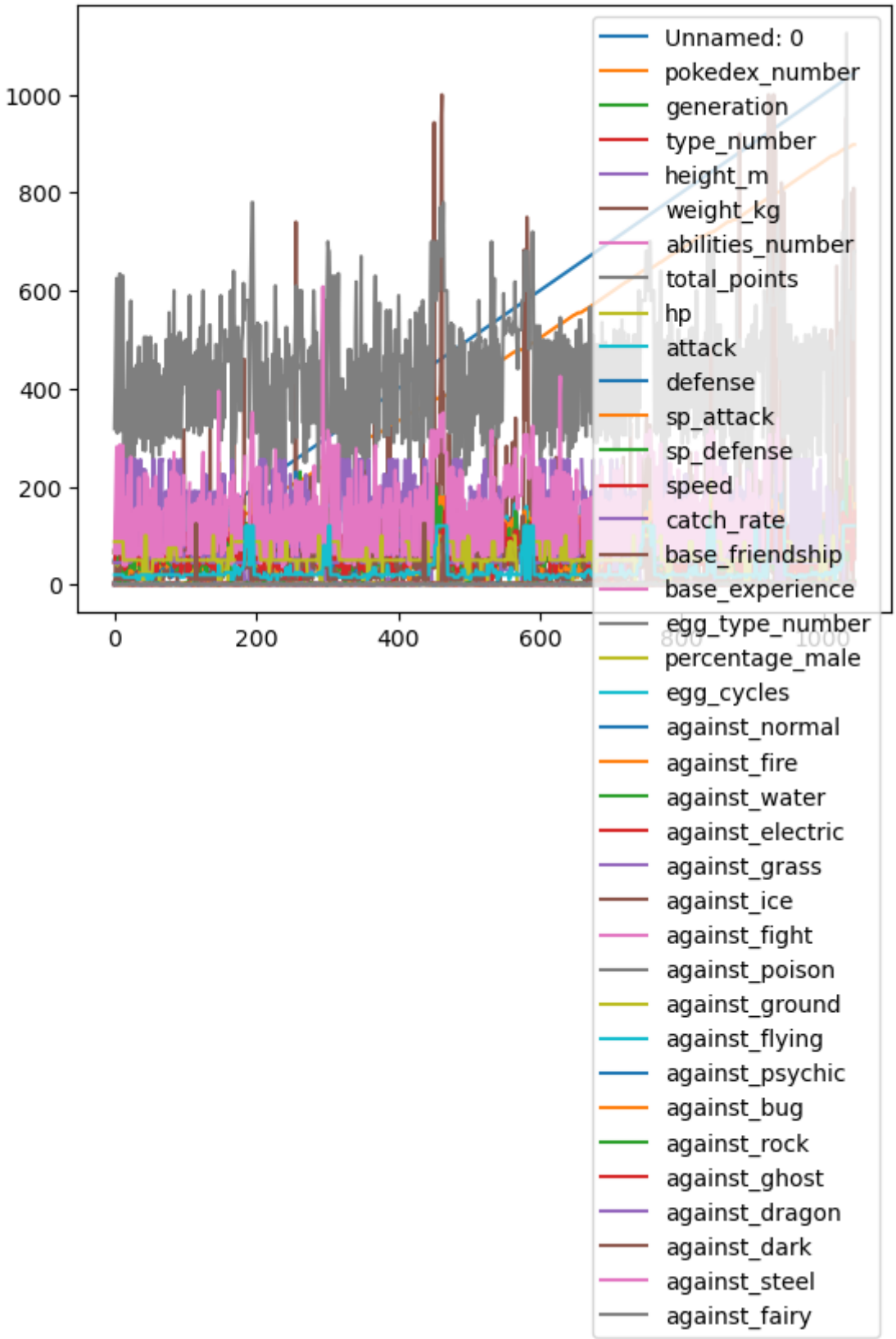
	Unnamed: 0.1	Unnamed: 0	pokedex_number	name	german_name	japanese_name	gene
1040	1040	1040	896	Glastrier	Polaross	ブリザポス (Burizaposu)	
1041	1041	1041	897	Spectrier	Phantoross	レイスポス (Reisuposu)	
1042	1042	1042	898	Calyrex	Coronospa	バドレックス (Budrex)	
1043	1043	1043	898	Calyrex Ice Rider	Coronospa	バドレックス (Budrex)	
1044	1044	1044	898	Calyrex Shadow Rider	Coronospa	バドレックス (Budrex)	

5 rows × 54 columns

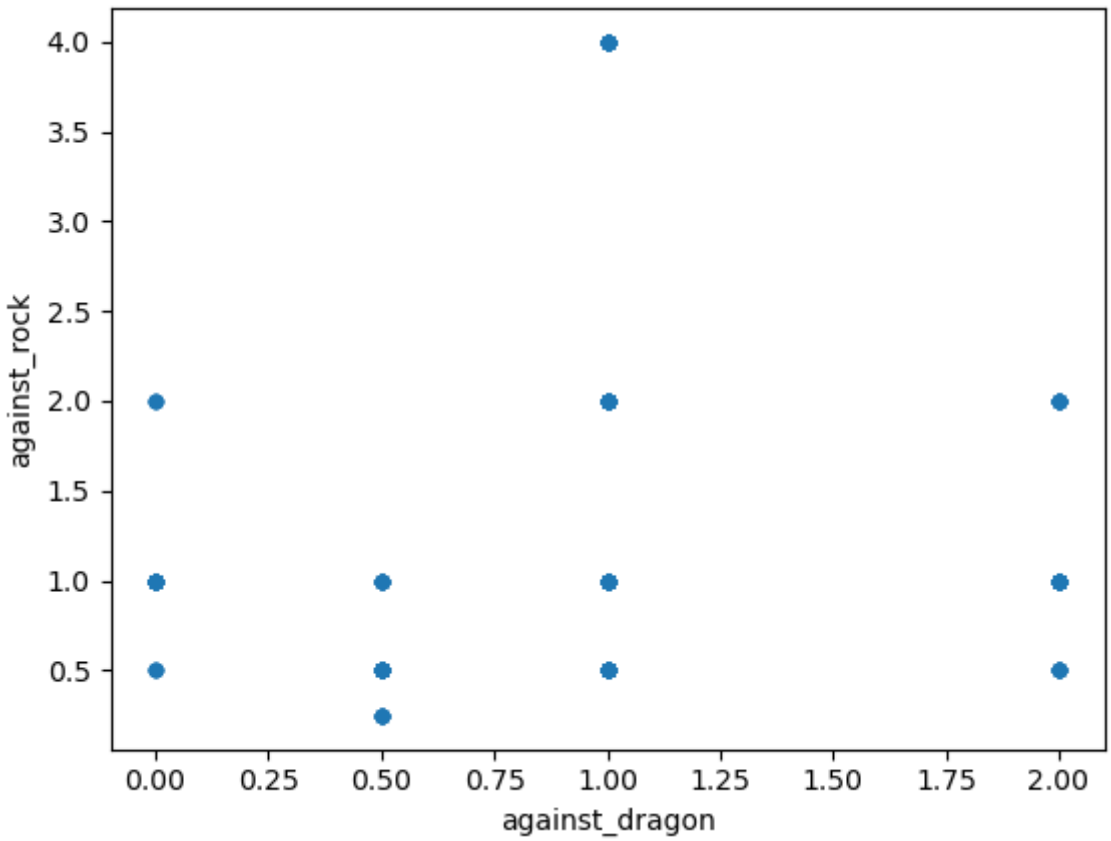
In [25]:
```
print(pokemon.loc[4])
#fetch the single row from the csv file
```

```
Unnamed: 0                        4
pokedex_number                    4
name                      Charmander
german_name                 Glumanda
japanese_name       ヒトカゲ (Hitokage)
generation                        1
status                       Normal
species               Lizard Pokémon
type_number                       1
type_1                         Fire
type_2                          NaN
height_m                        0.6
weight_kg                       8.5
abilities_number                  2
ability_1                     Blaze
ability_2                       NaN
ability_hidden            Solar Power
total_points                    309
hp                               39
attack                           52
defense                          43
sp_attack                        60
sp_defense                       50
speed                            65
catch_rate                     45.0
base_friendship                70.0
base_experience                62.0
growth_rate                Medium Slow
egg_type_number                   2
egg_type_1                   Dragon
egg_type_2                  Monster
percentage_male                87.5
egg_cycles                     20.0
against_normal                  1.0
against_fire                    0.5
against_water                   2.0
against_electric                1.0
against_grass                   0.5
against_ice                     0.5
against_fight                   1.0
against_poison                  1.0
against_ground                  2.0
against_flying                  1.0
against_psychic                 1.0
against_bug                     0.5
against_rock                    2.0
against_ghost                   1.0
against_dragon                  1.0
against_dark                    1.0
against_steel                   0.5
against_fairy                   0.5
Name: 4, dtype: object
```

In [26]:
```
pokemon.plot()
plt.show()
```

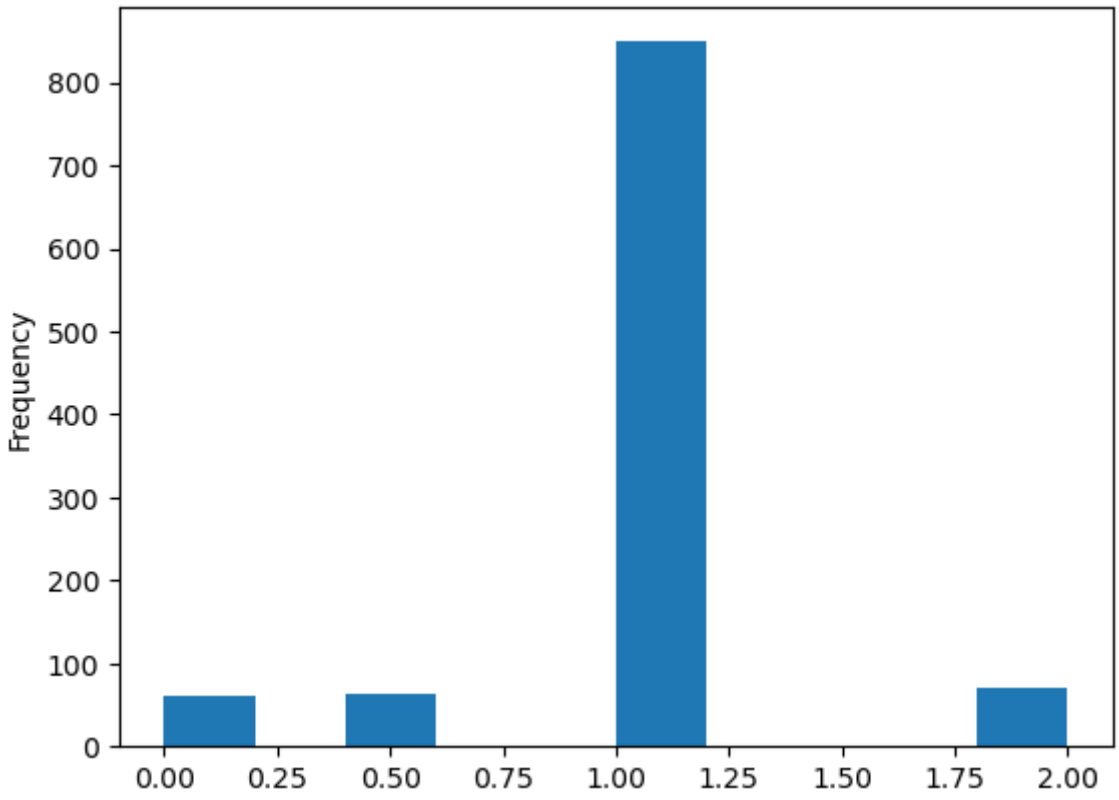


In [31]:
```
pokemon.plot(kind='scatter',x='against_dragon',y='against_rock')
plt.show()
```



In [33]:
```
pokemon['against_dragon'].plot(kind='hist')
```

Out[33]:
```
<Axes: ylabel='Frequency'>
```



In [34]:
```
# show the null, non-null values , datatypes and memory usage
print(pokemon.info())
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1045 entries, 0 to 1044
Data columns (total 51 columns):
 #   Column            Non-Null Count  Dtype  
---  ------            --------------  -----  
 0   Unnamed: 0        1045 non-null   int64  
 1   pokedex_number    1045 non-null   int64  
 2   name              1045 non-null   object 
 3   german_name       1045 non-null   object 
 4   japanese_name     1045 non-null   object 
 5   generation        1045 non-null   int64  
 6   status            1045 non-null   object 
 7   species           1045 non-null   object 
 8   type_number       1045 non-null   int64  
 9   type_1            1045 non-null   object 
 10  type_2            553 non-null    object 
 11  height_m          1045 non-null   float64
 12  weight_kg         1044 non-null   float64
 13  abilities_number  1045 non-null   int64  
 14  ability_1         1042 non-null   object 
 15  ability_2         516 non-null    object 
 16  ability_hidden    813 non-null    object 
 17  total_points      1045 non-null   int64  
 18  hp                1045 non-null   int64  
 19  attack            1045 non-null   int64  
 20  defense           1045 non-null   int64  
 21  sp_attack         1045 non-null   int64  
 22  sp_defense        1045 non-null   int64  
 23  speed             1045 non-null   int64  
 24  catch_rate        1027 non-null   float64
 25  base_friendship   930 non-null    float64
 26  base_experience   925 non-null    float64
 27  growth_rate       1044 non-null   object 
 28  egg_type_number   1045 non-null   int64  
 29  egg_type_1        1042 non-null   object 
 30  egg_type_2        285 non-null    object 
 31  percentage_male   872 non-null    float64
 32  egg_cycles        1044 non-null   float64
 33  against_normal    1045 non-null   float64
 34  against_fire      1045 non-null   float64
 35  against_water     1045 non-null   float64
 36  against_electric  1045 non-null   float64
 37  against_grass     1045 non-null   float64
 38  against_ice       1045 non-null   float64
 39  against_fight     1045 non-null   float64
 40  against_poison    1045 non-null   float64
 41  against_ground    1045 non-null   float64
 42  against_flying    1045 non-null   float64
 43  against_psychic   1045 non-null   float64
 44  against_bug       1045 non-null   float64
 45  against_rock      1045 non-null   float64
 46  against_ghost     1045 non-null   float64
 47  against_dragon    1045 non-null   float64
 48  against_dark      1045 non-null   float64
 49  against_steel     1045 non-null   float64
 50  against_fairy     1045 non-null   float64
dtypes: float64(25), int64(13), object(13)
memory usage: 416.5+ KB
None
```

In [35]:
```
#replace value to the null values
filledStud=pokemon.fillna(30)
print(filledStud)
```

```
      Unnamed: 0  pokedex_number                 name german_name  \
0              0               1            Bulbasaur     Bisasam
1              1               2              Ivysaur   Bisaknosp
2              2               3             Venusaur    Bisaflor
3              3               3        Mega Venusaur    Bisaflor
4              4               4           Charmander    Glumanda
...          ...             ...                  ...         ...
1040        1040             896            Glastrier    Polaross
1041        1041             897            Spectrier  Phantoross
1042        1042             898              Calyrex   Coronospa
1043        1043             898    Calyrex Ice Rider   Coronospa
1044        1044             898  Calyrex Shadow Rider   Coronospa

           japanese_name  generation         status              species
\
0     フシギダネ (Fushigidane)           1         Normal         Seed Poké
mon
1      フシギソウ (Fushigisou)           1         Normal         Seed Poké
mon
2     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
3     フシギバナ (Fushigibana)           1         Normal         Seed Poké
mon
4         ヒトカゲ (Hitokage)           1         Normal       Lizard Pokém
on
...                    ...         ...            ...                  ...
1040   ブリザポス (Burizaposu)           8  Sub Legendary   Wild Horse Poké
mon
1041    レイスポス (Reisuposu)           8  Sub Legendary  Swift Horse Poké
mon
1042      バドレックス (Budrex)           8      Legendary         King Pok
émon
1043      バドレックス (Budrex)           8      Legendary    High King Pok
émon
1044      バドレックス (Budrex)           8      Legendary    High King Pok
émon

      type_number   type_1  ... against_ground  against_flying  \
0               2    Grass  ...            1.0             2.0
1               2    Grass  ...            1.0             2.0
2               2    Grass  ...            1.0             2.0
3               2    Grass  ...            1.0             2.0
4               1     Fire  ...            2.0             1.0
...           ...      ...  ...            ...             ...
1040            1      Ice  ...            1.0             1.0
1041            1    Ghost  ...            1.0             1.0
1042            2  Psychic  ...            0.5             2.0
1043            2  Psychic  ...            1.0             1.0
1044            2  Psychic  ...            1.0             1.0

      against_psychic  against_bug against_rock against_ghost against_drag
on  \
0                 2.0          1.0          1.0           1.0
1.0
1                 2.0          1.0          1.0           1.0
1.0
2                 2.0          1.0          1.0           1.0
1.0
3                 2.0          1.0          1.0           1.0
1.0
4                 1.0          0.5          2.0           1.0
```

```
1.0
...               ...          ...          ...          ...
...
1040              1.0          1.0          2.0          1.0
1.0
1041              1.0          0.5          1.0          2.0
1.0
1042              0.5          4.0          1.0          2.0
1.0
1043              0.5          2.0          2.0          2.0
1.0
1044              0.5          1.0          1.0          4.0
1.0

      against_dark  against_steel  against_fairy
0              1.0            1.0            0.5
1              1.0            1.0            0.5
2              1.0            1.0            0.5
3              1.0            1.0            0.5
4              1.0            0.5            0.5
...            ...            ...            ...
1040           1.0            2.0            1.0
1041           2.0            1.0            1.0
1042           2.0            1.0            1.0
1043           2.0            2.0            1.0
1044           4.0            1.0            1.0

[1045 rows x 51 columns]
```

In [40]:
```
#mean.........
mean=pokemon['Avg'].mean()
print(f"mean:{mean}")
```

```
mean:1.04061004784689
```

In [42]:
```
#medium
medium=pokemon['Avg'].median()
print(f"medium:{medium}")
```

```
medium:1.0
```

In [44]:
```
#mode..........
mode=pokemon['Total'].mode()
print(f"mode:{mode}")
```

```
mode:0    3.5
Name: Total, dtype: float64
```

In [ ]: