berries_ipython

October 5, 2022

[1]:
```
import requests
import numpy as np
import pylab as pl
```

[2]:
```
main_url = 'https://pokeapi.co/api/v2/berry/'
```

[3]:
```
response = requests.get( main_url )
response
```

[3]:
```
<Response [200]>
```

[4]:
```
# Un codigo 200 indica que se obtuvieron datos satisfactoriamente
try:
    if response.status_code == 200:
        payload = response.json()
        berries_number = payload.get( 'count', [] )

        print('There is {} berries in the dataset'.format( berries_number ))
except:
    print('ERROR! Something went wrong while loading data')
```

```
There is 64 berries in the dataset
```

[5]:
```
# Obtengo los datos de las berries
berri_names      = []
berri_grow_times = []
for k in range(berries_number+1):
    berri_response = requests.get( main_url + str(k) )

    if berri_response.status_code == 200:
        berri_payload       = berri_response.json()
        berri_name          = berri_payload.get( 'name', [] )
        berri_growth_time   = berri_payload.get( 'growth_time', [] )
        print( 'Berri {} ---> {} with grow time of {}'.format(k, berri_name,␣
 ↪berri_growth_time) )

        # Guardo los datos en listas:
```

```
        berri_names.append( berri_name )
        berri_grow_times.append( berri_growth_time )
```

```
Berri 1 ---> cheri with grow time of 3
Berri 2 ---> chesto with grow time of 3
Berri 3 ---> pecha with grow time of 3
Berri 4 ---> rawst with grow time of 3
Berri 5 ---> aspear with grow time of 3
Berri 6 ---> leppa with grow time of 4
Berri 7 ---> oran with grow time of 4
Berri 8 ---> persim with grow time of 4
Berri 9 ---> lum with grow time of 12
Berri 10 ---> sitrus with grow time of 8
Berri 11 ---> figy with grow time of 5
Berri 12 ---> wiki with grow time of 5
Berri 13 ---> mago with grow time of 5
Berri 14 ---> aguav with grow time of 5
Berri 15 ---> iapapa with grow time of 5
Berri 16 ---> razz with grow time of 2
Berri 17 ---> bluk with grow time of 2
Berri 18 ---> nanab with grow time of 2
Berri 19 ---> wepear with grow time of 2
Berri 20 ---> pinap with grow time of 2
Berri 21 ---> pomeg with grow time of 8
Berri 22 ---> kelpsy with grow time of 8
Berri 23 ---> qualot with grow time of 8
Berri 24 ---> hondew with grow time of 8
Berri 25 ---> grepa with grow time of 8
Berri 26 ---> tamato with grow time of 8
Berri 27 ---> cornn with grow time of 6
Berri 28 ---> magost with grow time of 6
Berri 29 ---> rabuta with grow time of 6
Berri 30 ---> nomel with grow time of 6
Berri 31 ---> spelon with grow time of 15
Berri 32 ---> pamtre with grow time of 15
Berri 33 ---> watmel with grow time of 15
Berri 34 ---> durin with grow time of 15
Berri 35 ---> belue with grow time of 15
Berri 36 ---> occa with grow time of 18
Berri 37 ---> passho with grow time of 18
Berri 38 ---> wacan with grow time of 18
Berri 39 ---> rindo with grow time of 18
Berri 40 ---> yache with grow time of 18
Berri 41 ---> chople with grow time of 18
Berri 42 ---> kebia with grow time of 18
Berri 43 ---> shuca with grow time of 18
Berri 44 ---> coba with grow time of 18
Berri 45 ---> payapa with grow time of 18
```

```
Berri 46 ---> tanga with grow time of 18
Berri 47 ---> charti with grow time of 18
Berri 48 ---> kasib with grow time of 18
Berri 49 ---> haban with grow time of 18
Berri 50 ---> colbur with grow time of 18
Berri 51 ---> babiri with grow time of 18
Berri 52 ---> chilan with grow time of 18
Berri 53 ---> liechi with grow time of 24
Berri 54 ---> ganlon with grow time of 24
Berri 55 ---> salac with grow time of 24
Berri 56 ---> petaya with grow time of 24
Berri 57 ---> apicot with grow time of 24
Berri 58 ---> lansat with grow time of 24
Berri 59 ---> starf with grow time of 24
Berri 60 ---> enigma with grow time of 24
Berri 61 ---> micle with grow time of 24
Berri 62 ---> custap with grow time of 24
Berri 63 ---> jaboca with grow time of 24
Berri 64 ---> rowap with grow time of 24
```

[6]:
```
# Convierto los valores de crecimiento en un arreglo de numpy
berri_grow_times = np.asarray( berri_grow_times )
berri_grow_times
```

[6]:
```
array([ 3,  3,  3,  3,  3,  4,  4,  4, 12,  8,  5,  5,  5,  5,  5,  2,  2,
        2,  2,  2,  8,  8,  8,  8,  8,  8,  6,  6,  6,  6, 15, 15, 15, 15,
       15, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18,
       18, 24, 24, 24, 24, 24, 24, 24, 24, 24, 24, 24, 24])
```

[7]:
```
# Creo el diccionario con la informacion
unique, counts = np.unique(berri_grow_times, return_counts=True)
frequency = list(zip(unique, counts))

berries_dicc = {
    "berries_names": berri_names,
    "min_growth_time": str( min( berri_grow_times ) ),
    "median_growth_time": str( np.median( berri_grow_times ) ),
    "max_growth_time": str( max( berri_grow_times ) ),
    "variance_growth_time": str( np.var( berri_grow_times ) ),
    "mean_growth_time": str( np.mean( berri_grow_times ) ),
    "frequency_growth_time": str( frequency )
}
berries_dicc
```

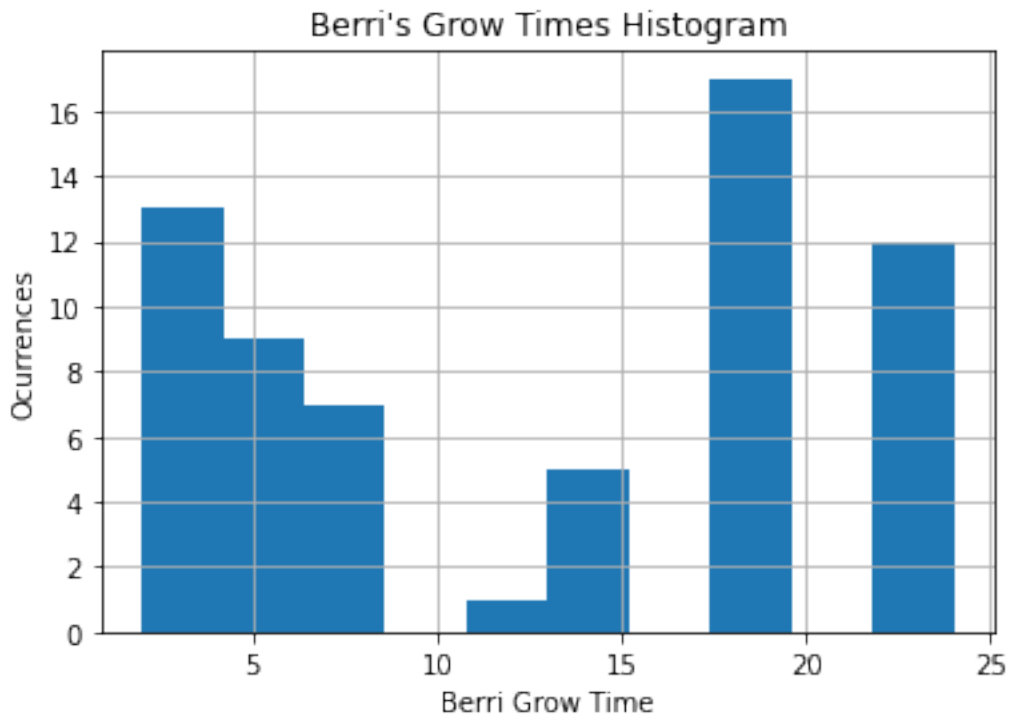
[7]:
```
{'berries_names': ['cheri',
  'chesto',
  'pecha',
  'rawst',
```

```
'aspear',
'leppa',
'oran',
'persim',
'lum',
'sitrus',
'figy',
'wiki',
'mago',
'aguav',
'iapapa',
'razz',
'bluk',
'nanab',
'wepear',
'pinap',
'pomeg',
'kelpsy',
'qualot',
'hondew',
'grepa',
'tamato',
'cornn',
'magost',
'rabuta',
'nomel',
'spelon',
'pamtre',
'watmel',
'durin',
'belue',
'occa',
'passho',
'wacan',
'rindo',
'yache',
'chople',
'kebia',
'shuca',
'coba',
'payapa',
'tanga',
'charti',
'kasib',
'haban',
'colbur',
'babiri',
```

```
 'chilan',
 'liechi',
 'ganlon',
 'salac',
 'petaya',
 'apicot',
 'lansat',
 'starf',
 'enigma',
 'micle',
 'custap',
 'jaboca',
 'rowap'],
'min_growth_time': '2',
'median_growth_time': '15.0',
'max_growth_time': '24',
'variance_growth_time': '61.495849609375',
'mean_growth_time': '12.859375',
'frequency_growth_time': '[(2, 5), (3, 5), (4, 3), (5, 5), (6, 4), (8, 7), (12,
1), (15, 5), (18, 17), (24, 12)]'}
```

[8]:
```
# Hago un histograma para mostrar los datos
pl.figure()
pl.hist(berri_grow_times)
pl.grid()
pl.xlabel('Berri Grow Time')
pl.ylabel('Ocurrences')
pl.title("Berri's Grow Times Histogram")
```

[8]:
```
Text(0.5, 1.0, "Berri's Grow Times Histogram")
```


Berri's Grow Times Histogram
Ocurrences
Berri Grow Time
0
2
4
6
8
10
12
14
16
5
10
15
20
25

[ ]: