

```
In [221... #Import libraries
from matplotlib_venn import venn2, venn2_circles, venn2_unweighted
from matplotlib_venn import venn3, venn3_circles
from matplotlib import pyplot as plt
import pandas as pd
import seaborn as sns
from pywaffle import Waffle
%matplotlib inline
```

```
In [238... titanic_df = pd.read_csv("titanic.csv")
covid_spain = pd.read_csv("worldometer_coronavirus_daily_data.csv")
students_df = pd.read_csv("StudentsPerformance.csv")
```

```
In [202... covid_spain = covid_spain[covid_spain.country == "Spain"]
covid_spain
```

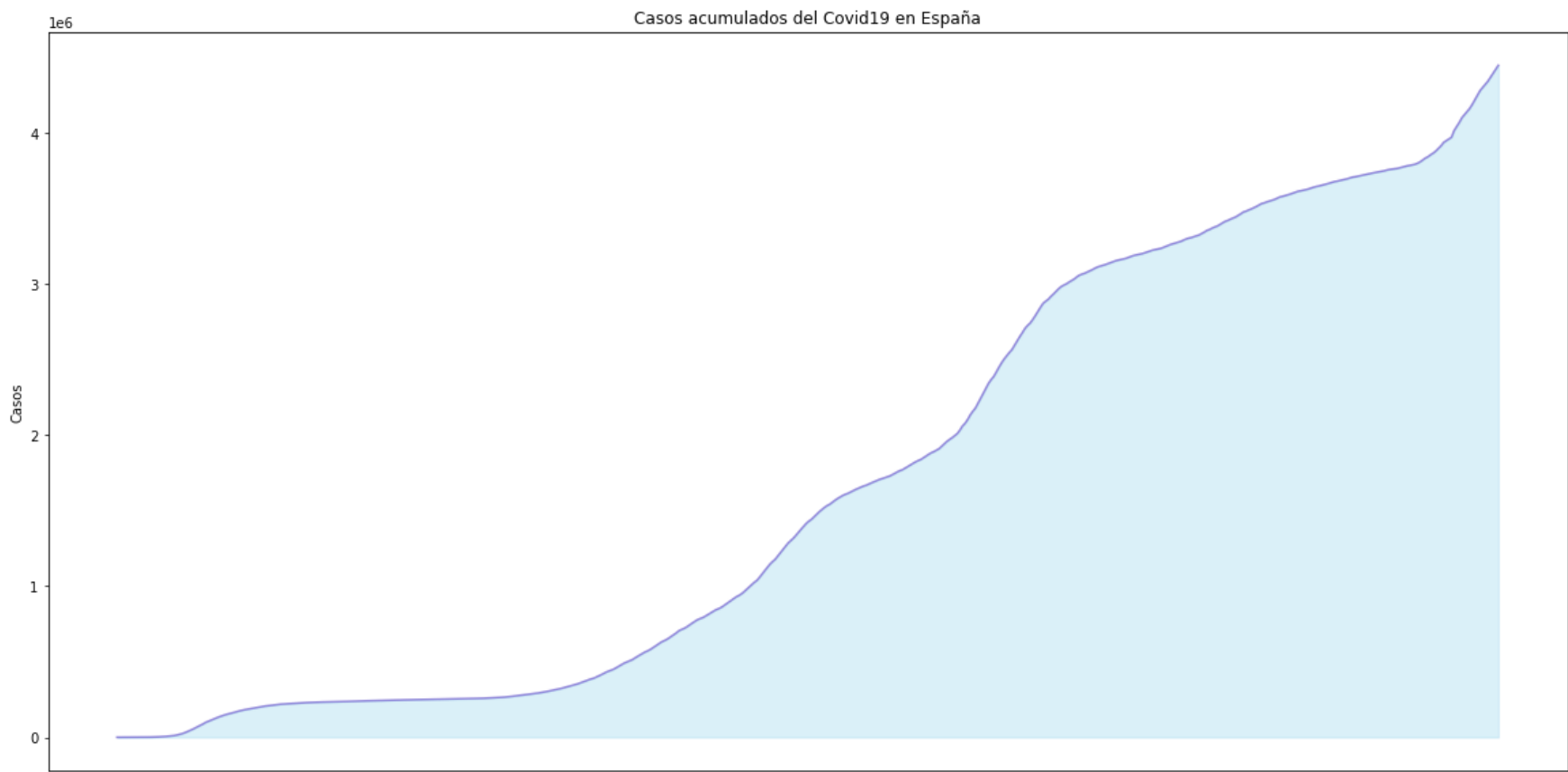
Out[202...

	date	country	cumulative_total_cases	daily_new_cases	active_cases	cumulative_total_deaths	daily_new_deaths
98976	2020-2-15	Spain	710.0	NaN	708.0	0.0	NaN
98977	2020-2-16	Spain	736.0	26.0	734.0	0.0	NaN
98978	2020-2-17	Spain	764.0	28.0	762.0	0.0	NaN
98979	2020-2-18	Spain	792.0	28.0	790.0	0.0	NaN
98980	2020-2-19	Spain	810.0	18.0	808.0	0.0	NaN
...	...	...	...	...	...	...	...
99503	2021-7-26	Spain	4342054.0	20541.0	564515.0	81268.0	15.0
99504	2021-7-27	Spain	4368453.0	26399.0	585935.0	81323.0	55.0
99505	2021-7-28	Spain	4395602.0	27149.0	610295.0	81396.0	73.0
99506	2021-7-29	Spain	4422291.0	26689.0	632935.0	81442.0	46.0
99507	2021-7-30	Spain	4447044.0	24753.0	654358.0	81486.0	44.0

532 rows × 7 columns

```
In [219... x= covid_spain.date
y = covid_spain.cumulative_total_cases
plt.figure(figsize=(20,10))
plt.fill_between(x,y, color="skyblue", alpha=0.3)
plt.plot(x, y, color="Slateblue", alpha=0.7)

plt.title("Casos acumulados del Covid19 en España")
plt.xlabel("Fecha")
plt.ylabel("Casos")
ax = plt.gca()
ax.axes.xaxis.set_visible(False)
plt.show()
```



```
In [5]: titanic_df.head()
```

Out[5]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C123	S
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	NaN	S

```
In [52]: titanic_df.describe()
```

Out[52]:

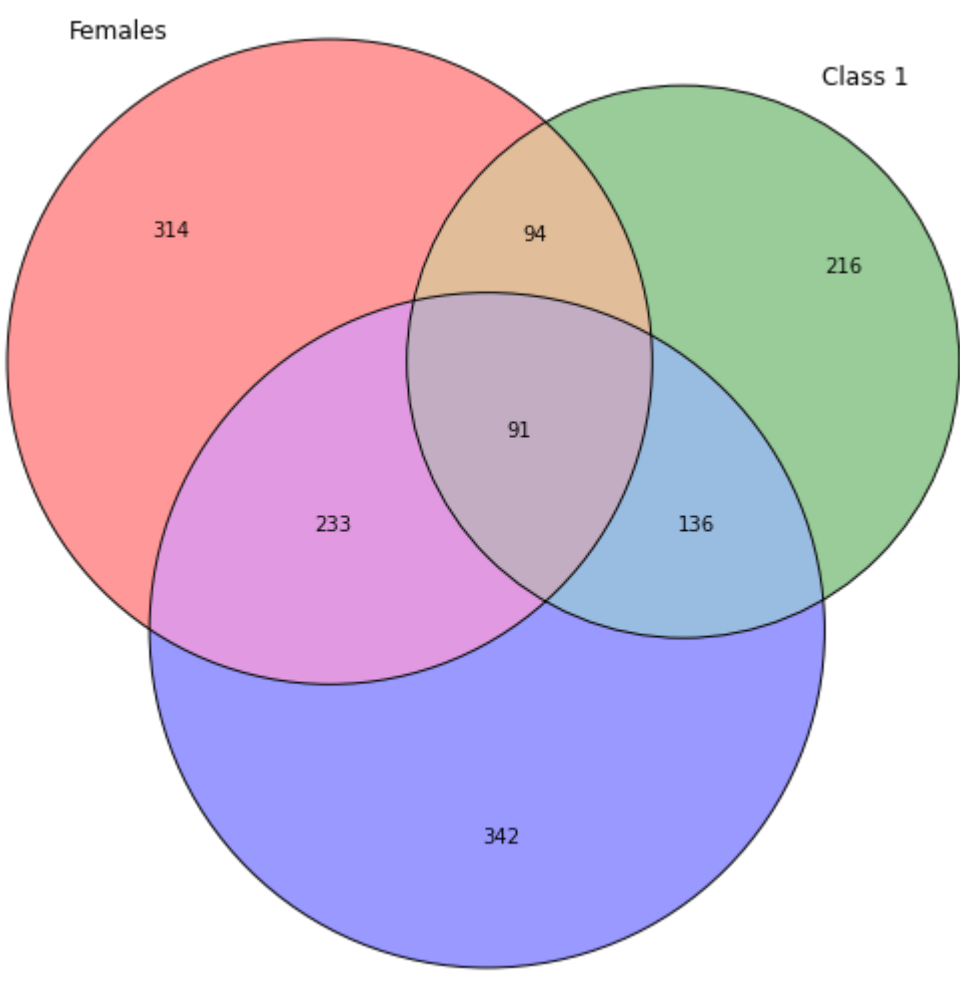
	PassengerId	Survived	Pclass	Age	SibSp	Parch	Fare
count	891.000000	891.000000	891.000000	714.000000	891.000000	891.000000	891.000000
mean	446.000000	0.383838	2.308642	29.699118	0.523008	0.381594	32.204208
std	257.353842	0.486592	0.836071	14.526497	1.102743	0.806057	49.693429
min	1.000000	0.000000	1.000000	0.420000	0.000000	0.000000	0.000000
25%	223.500000	0.000000	2.000000	20.125000	0.000000	0.000000	7.910400
50%	446.000000	0.000000	3.000000	28.000000	0.000000	0.000000	14.454200
75%	668.500000	1.000000	3.000000	38.000000	1.000000	0.000000	31.000000
max	891.000000	1.000000	3.000000	80.000000	8.000000	6.000000	512.329200

```
In [106... survivals = df.PassengerId[df.Survived == 1]
females = df[df.Sex == "female"]
class1 = df[df.Pclass == 1]
```

```
In [107... class1females = class1[class1.Sex == "female"]
class1Surviving = class1[class1.Survived == 1]
femalesSurviving = females[females.Survived == 1]
femalesSurviving.shape[0]
class1FemalesSurviving = femalesSurviving[malesSurviving.Pclass == 1]
```

```
In [290... plt.figure(figsize=(20,10))
subsets = (females.shape[0], class1.shape[0],class1females.shape[0],survivals.shape[0],femalesSurviving.shape[0])
venn3(subsets, set_labels=("Females", "Class 1", "Survivals"))
venn3_circles(subsets, alpha=1, linestyle="--", linewidth=1)
```

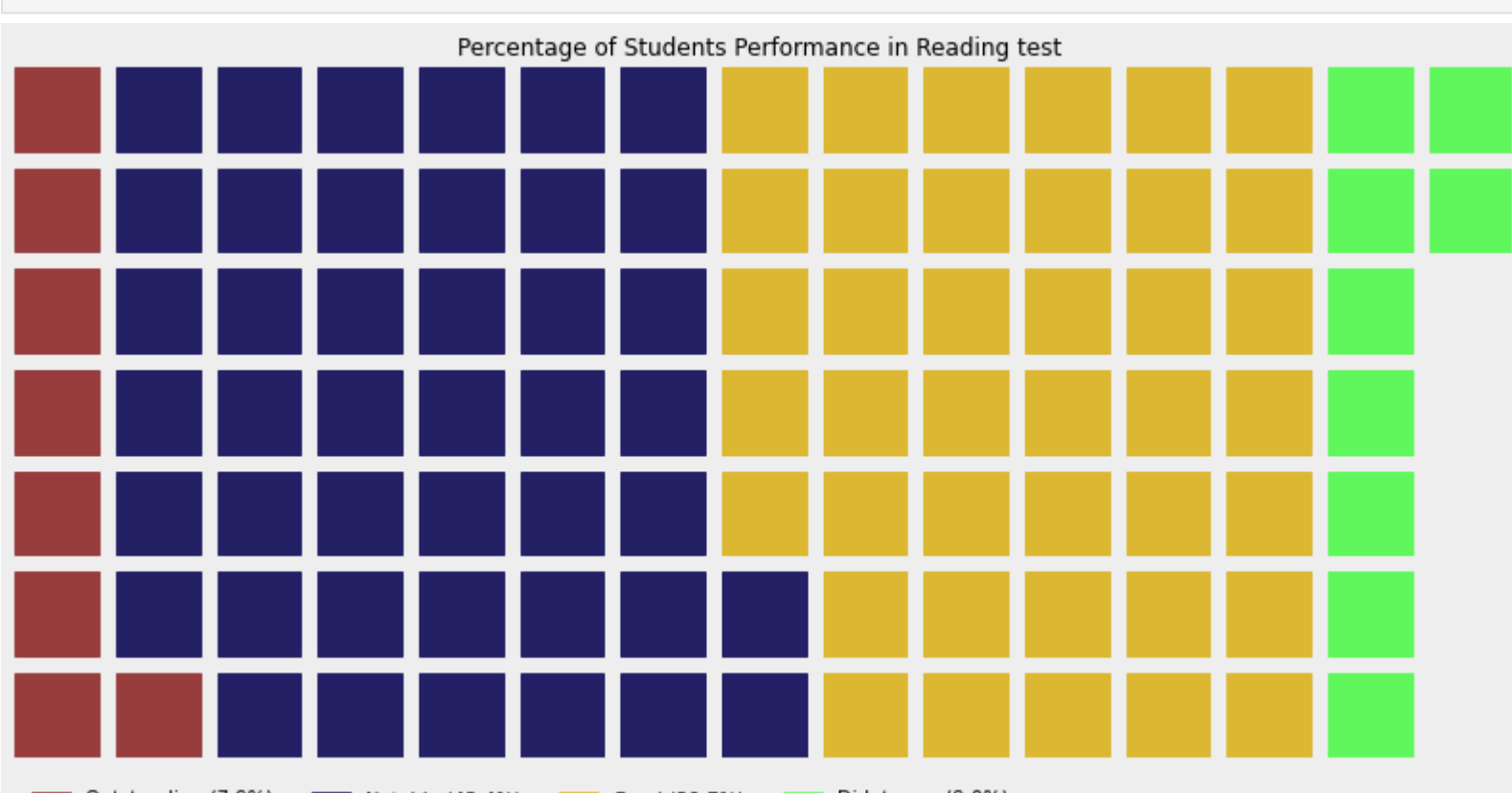
```
Out[290... [<matplotlib.patches.Circle at 0x152bfaf5400>,
<matplotlib.patches.Circle at 0x152bfaefa00>,
<matplotlib.patches.Circle at 0x152bfaef910>]
```



```
In [244... students_df
reading_scores =students_df["reading score"]
```

```
In [260... outstanding = reading_scores[reading_scores >= 90]
notable = reading_scores[(reading_scores >=70) & (reading_scores <90)]
good = reading_scores[(reading_scores >= 50) & (reading_scores <70)]
didnt_pass = reading_scores[reading_scores < 50]
```

```
In [287... data = {'Outstanding': outstanding.shape[0] / reading_scores.shape[0] * 100, 'Notable': notable.shape[0]/ reading_scores.shape[0] * 100, 'Good': good.shape[0]/ reading_scores.shape[0]*100, 'Didnt pass': didnt_pass.shape[0]/ reading_scores.shape[0]*100}
fig = plt.figure(
    FigureClass=Waffle,
    rows=7,
    values=data,
    colors=("#983D3D", "#232066", "#DCB732", "#60F75D"),
    title='label: 'Percentage of Students Performance in Reading test ', 'loc': 'center'),
    labels=[f"{k} ({v}%" for k, v in data.items()],
    legend={'loc': 'lower left', 'bbox_to_anchor': (0, -0.1), 'ncol': len(data), 'framealpha': 0},
    starting_location='NW',
    block_arranging_style='snake',
    tight=False,
    figsize=(14, 8)
)
fig.set_facecolor('#EEEEEE')
plt.show()
```



```
In [ ]:
```