



# **ESTADISTICA AVANZADA**

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REPORTE DE PRACTICA  
INTRODUCCION A R

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GRUPO 932

## EJERCICIO

```
1 import pandas as pd
2 import matplotlib.pyplot as plt
3
4 data_dict = {
5     'year': [1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638],
6     'boys': [5218, 4858, 4422, 4994, 5158, 5035, 5106, 4917, 4703, 5359],
7     'girls': [4683, 4457, 4102, 4590, 4841, 4912, 4928, 4783, 4661, 5473]
8 }
9
10 df = pd.DataFrame(data_dict)
11
12 plt.figure(figsize=(12, 6))
13 plt.plot(df['year'], df['boys'], label='Boys')
14 plt.plot(df['year'], df['girls'], label='Girls')
15 plt.xlabel('Year')
16 plt.ylabel('Births')
17 plt.title('Births of Boys and Girls Over the Years')
18 plt.legend()
19 plt.show()
20
21 df['total_births'] = df['boys'] + df['girls']
22 df['prop_boys'] = df['boys'] / df['total_births']
23 df['prop_girls'] = df['girls'] / df['total_births']
24 df['comparison'] = df['prop_boys'] > df['prop_girls']
25
26 print(df)
27
28
```

```
In [9]: runfile('C:/Users/kevin/Desktop/UABC/TercerSemestre/Estadística Avanzada/
Practica 2/Practica2.py', wdir='C:/Users/kevin/Desktop/UABC/TercerSemestre/
Estadística Avanzada/Practica 2')
```

	year	boys	girls	total_births	prop_boys	prop_girls	comparison
0	1629	5218	4683	9901	0.527017	0.472983	True
1	1630	4858	4457	9315	0.521524	0.478476	True
2	1631	4422	4102	8524	0.518771	0.481229	True
3	1632	4994	4590	9584	0.521077	0.478923	True
4	1633	5158	4841	9999	0.515852	0.484148	True
5	1634	5035	4912	9947	0.506183	0.493817	True
6	1635	5106	4928	10034	0.508870	0.491130	True
7	1636	4917	4783	9700	0.506907	0.493093	True
8	1637	4703	4661	9364	0.502243	0.497757	True
9	1638	5359	5473	10832	0.494738	0.505262	False

