PROJECT: VISUALIZING THE HISTORY OF NOBEL PRIZE WINNERS



The Nobel Prize has been among the most prestigious international awards since 1901. Each year, awards are bestowed in chemistry, literature, physics, physiology or medicine, economics, and peace. In addition to the honor, prestige, and substantial prize money, the recipient also gets a gold medal with an image of Alfred Nobel (1833 - 1896), who established the prize.



The Nobel Foundation has made a dataset available of all prize winners from the outset of the awards from 1901 to 2023. The dataset used in this project is from the Nobel Prize API and is available in the nobel.csv file in the data folder.

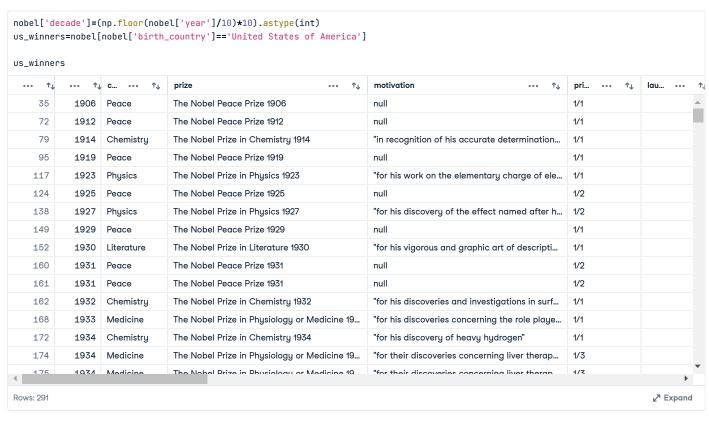
In this project, you'll get a chance to explore and answer several questions related to this prizewinning data. And we encourage you then to explore further questions that you're interested in!

```
# Loading in required libraries
import pandas as pd
import seaborn as sns
import numpy as np
# Start coding here!
```

nobel=pd.read_csv('data/nobel.csv') nobel.head()						
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0	1901	Chemistry	The Nobel Prize in Chemistry 1901	"in recognition of the extraordinary services	1/1	16
1	1901	Literature	The Nobel Prize in Literature 1901	"in special recognition of his poetic composit	1/1	56
2	1901	Medicine	The Nobel Prize in Physiology or Medicine 19	"for his work on serum therapy, especially its	1/1	29
3	1901	Peace	The Nobel Peace Prize 1901	null	1/2	46
4	1901	Peace	The Nobel Peace Prize 1901	null	1/2	46
4						+
Rows: 5						Expand

```
top_gender=nobel['sex'].value_counts().index[0]
top_gender
'Male'
```

```
top_country=nobel['birth_country'].value_counts().index[0]
top_country
'United States of America'
```



```
max_decade_usa2=(us_winners['decade'].value_counts()/nobel['decade'].value_counts()).max()
max_decade_usa2
0.42276422764227645
```

us_decade					
index	••• ↑↓	decade ··· ↑↓	count		
	0	1900			
	1	1910			
	2	1920			
	3	1930			
	4	1940			
	5	1950			
	6	1960			
	7	1970			
	8	1980			
	9	1990			
	10	2000			
	11	2010			
	12	2020			

```
max_decade_usa1=(us_winners.groupby('decade', as_index=False)['decade'].value_counts()/nobel.groupby('decade', as_index=False)
['decade'].value_counts()) #.max()
max_decade_usa1['decade']=us_decade['decade']
max_decade_usa=max_decade_usa1[max_decade_usa1['count']==max_decade_usa1['count'].max()]['decade'].values[0]
max_decade_usa
```

```
Male=nobel.groupby('decade')['sex'].value_counts().values[0]
Male
53
```

```
nobel['female']=nobel['sex']=='Female'
nobel['female']
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    12 False
    13 False
    14 False
    15 False
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```

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grp_decat=nobel.groupby(['decade', 'category'])
total_count=grp_decat.count()
fem_count=grp_decat['sex'].apply(lambda x: (x=='Female').sum())
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# Updated code
# prop = fem_count['Female'] / total_count['Female']
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Rows: 72

∠ Expand
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```
max_female_dict = {max_prop['decade'].iloc[0]: max_prop['category'].iloc[0]}
max_female_dict
{2020: 'Literature'}
```

```
first_woman=[nobel[nobel['sex']=='Female'].values[0]]
first_woman=pd.DataFrame(first_woman, columns=nobel.columns)
first_woman_name=first_woman['full_name'][0]
first_woman_name
first_woman_category=first_woman['category'][0]
first_woman_category
'Physics'
```

```
repeat_list = []
repeat_names = nobel['full_name'].value_counts()
repeat_names = repeat_names[repeat_names > 1].index.tolist()
repeat_list.extend(repeat_names)
repeat_list

['Comité international de la Croix Rouge (International Committee of the Red Cross)',
'Linus Carl Pauling',
'John Bardeen',
'Frederick Sanger',
'Marie Curie, née Sklodowska',
'Office of the United Nations High Commissioner for Refugees (UNHCR)']
```