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In [ ]: Nurshanov Dias IT3-2208
python 7 lab
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In [49]: Create a results table (order by the count of gold medals) of Summer Olympic Games in the particular years: 1912, 1972, 2000
with respect to the medals type and country.
1) join medals and ioc_codes
2) 1912,1972,2000
3) order count of gold medals
```

zsh:1: number expected

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In [50]: import pandas as pd
editions = pd.read_csv("Summer Olympic medalists 1896 to 2008 - EDITIONS.tsv", sep="\t", engine='python')
editions = editions[['Edition', 'Grand Total', 'City', 'Country']]

ioc_codes = pd.read_csv('Summer Olympic medalists 1896 to 2008 - IOC COUNTRY CODES.csv')
ioc_codes = ioc_codes[['Country', 'NOC']]

medals = pd.read_csv('Summer Olympic medalists 1896 to 2008 - ALL MEDALISTS.tsv', sep='\t', header=4)
medals = medals[['Athlete', 'NOC', 'Medal', 'Edition']]
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In [51]: ioc_codes.head()
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Out[51]:

	Country	NOC
0	Afghanistan	AFG
1	Albania	ALB
2	Algeria	ALG
3	American Samoa*	ASA
4	Andorra	AND

```
In [52]: medals.head()
```

Out[52]:

	Athlete	NOC	Medal	Edition
0	HAJOS, Alfred	HUN	Gold	1896
1	HERSCHMANN, Otto	AUT	Silver	1896
2	DRIVAS, Dimitrios	GRE	Bronze	1896
3	MALOKINIS, Ioannis	GRE	Gold	1896
4	CHASAPIS, Spiridon	GRE	Silver	1896

```
In [53]: editions.head()
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Out[53]:

	Edition	Grand Total	City	Country
0	1896	151	Athens	Greece
1	1900	512	Paris	France
2	1904	470	St. Louis	United States
3	1908	804	London	United Kingdom
4	1912	885	Stockholm	Sweden

```
In [54]: # 2) 1912,1972,2000
medals = medals[medals['Edition'].isin([1912, 1972, 2000])]
medals = medals.merge(ioc_codes, on='NOC', how='left')

# 1) join medals and ioc_codes
medals = (
    medals.groupby(['Edition', 'Country', 'Medal'])
    .size()
    .unstack(fill_value=0)
    .reset_index()
)

# 3) order count of gold medals
medals = medals.sort_values(by='Gold', ascending=False)

print(medals[['Edition', 'Country', 'Bronze', 'Gold', 'Silver']])
```

Medal	Edition	Country	Bronze	Gold	Silver
132	2000	United States	52	130	66
13	1912	Sweden	25	86	62
117	2000	Russia	54	66	68
61	2000	Australia	54	60	69
57	1972	United States	43	53	59
..
123	2000	Sri Lanka	0	0	1
126	2000	Taiwan	4	0	1
128	2000	Trinidad and Tobago	1	0	1
133	2000	Uruguay	0	0	1
135	2000	Vietnam	0	0	1

[136 rows x 5 columns]

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