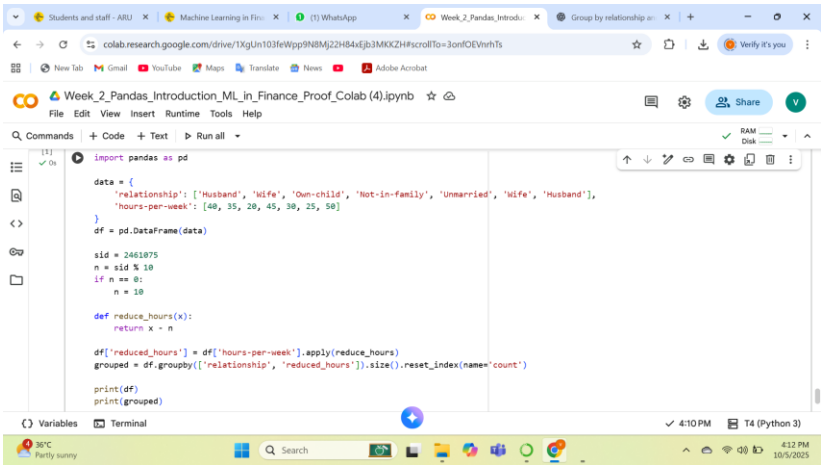
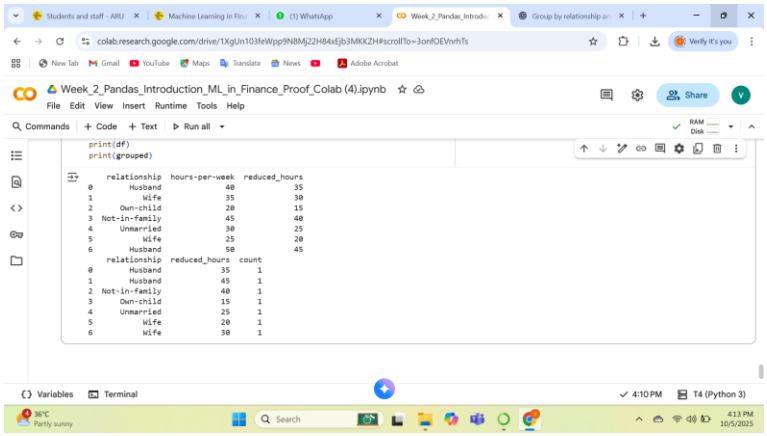
Machine Learning in Finance

Week 2 LAB LOGBOOK

```
import pandas as pd

data = {
    'relationship': ['Husband', 'Wife', 'Own-child', 'Not-in-family',
'Unmarried', 'Wife', 'Husband'],
    'hours-per-week': [40, 35, 20, 45, 30, 25, 50]
}
df = pd.DataFrame(data)

sid = 2461075
n = sid % 10
if n == 0:
    n = 10

def reduce_hours(x):
    return x - n

df['reduced_hours'] = df['hours-per-week'].apply(reduce_hours)
grouped = df.groupby(['relationship',
'reduced_hours']).size().reset_index(name='count')

print(df)
print(grouped)
```




Week_2_Pandas_Introduction_ML_in_Finance_Proof_Colab (4).ipynb
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print(df)
print(grouped)
relationship hours-per-week reduced_hours
0 Husband 40 35
1 Wife 35 30
2 Own-child 20 15
3 Not-in-family 45 40
4 Unmarried 30 25
5 Wife 25 20
6 Husband 50 45
relationship reduced_hours count
0 Husband 35 1
1 Husband 45 1
2 Not-in-family 40 1
3 Own-child 15 1
4 Unmarried 25 1
5 Wife 20 1
6 Wife 30 1
Variables
Terminal
4:10 PM
T4 (Python 3)
Search
4:13 PM
10/5/2025