

Name: Ritik Kaushal

Class: MSc Computer Science

SID: 2465410

Topic: ML in Finance Assignment 2

```
import pandas as pd
 n = 10
 df = pd.read_csv("adult_data_mini.csv")
 g1 = df.groupby(["relationship", "hours-per-week"]).size()
 def reduce_hours(x):
     return x - n
 df["reduced hours"] = df["hours-per-week"].apply(reduce hours)
 g2 = df.groupby(["relationship", "reduced_hours"]).size()
 print(g1)
 print(g2)
relationship
                     hours-per-week
  Husband
                     13
                                            1
                     40
                                            4
                                            1
                     45
                                            1
                     80
  Not-in-family
                     16
                                            1
                                            2
                     40
                     50
                                            2
  Own-child
                     30
                                            1
  Wife
                                            2
                     40
  dtype: int64
                     reduced_hours
  relationship
  Husband
                     3
                                           1
                     30
                                           4
                     35
                                           1
                     70
                                           1
  Not-in-family
                     6
                                           1
                     30
                                           2
                     40
                                           2
  Own-child
                                           1
                     20
  Wife
                     30
                                           2
  dtype: int64
```