```
import pandas as pd
```

1. read_csv
   a. na_values - additional strings to recognize as NaN. The Adult dataset uses “?” for unknown values.
   b. skipinitialspace - if True, leading spaces after delimiters are removed (so " United-States" becomes "United-States").

```
df = pd.read_csv('adult_dataset.csv',
                 na_values='?',    # treat '?' as missing data (NaN),
                 index_col=False,  # don’t pull out any column to be
the index
                 skipinitialspace=True)
df
```

```
       age     workclass  fnlwgt     education  educational-num  \
0       25       Private  226802          11th                7
1       38       Private   89814       HS-grad                9
2       28     Local-gov  336951    Assoc-acdm               12
3       44       Private  160323  Some-college               10
4       18           NaN  103497  Some-college               10
...    ...           ...     ...           ...              ...
48837   27       Private  257302    Assoc-acdm               12
48838   40       Private  154374       HS-grad                9
48839   58       Private  151910       HS-grad                9
48840   22       Private  201490       HS-grad                9
48841   52  Self-emp-inc  287927       HS-grad                9

           marital-status         occupation relationship   race
gender  \
0           Never-married  Machine-op-inspct    Own-child  Black
Male
1      Married-civ-spouse    Farming-fishing      Husband  White
Male
2      Married-civ-spouse    Protective-serv      Husband  White
Male
3      Married-civ-spouse  Machine-op-inspct      Husband  Black
Male
4           Never-married                NaN    Own-child  White
Female
...                   ...                ...          ...    ...
..
48837  Married-civ-spouse       Tech-support         Wife  White
Female
48838  Married-civ-spouse  Machine-op-inspct      Husband  White
Male
48839             Widowed       Adm-clerical    Unmarried  White
Female
48840       Never-married       Adm-clerical    Own-child  White
```

```
Male
48841  Married-civ-spouse    Exec-managerial         Wife  White
Female

       capital-gain  capital-loss  hours-per-week native-country
income
0                 0             0              40  United-States
<=50K
1                 0             0              50  United-States
<=50K
2                 0             0              40  United-States
>50K
3              7688             0              40  United-States
>50K
4                 0             0              30  United-States
<=50K
...             ...           ...             ...            ...    ..
.
48837             0             0              38  United-States
<=50K
48838             0             0              40  United-States
>50K
48839             0             0              40  United-States
<=50K
48840             0             0              20  United-States
<=50K
48841         15024             0              40  United-States
>50K

[48842 rows x 15 columns]
```

```
df.isnull().sum()
```

```
age                  0
workclass         2799
fnlwgt               0
education            0
educational-num      0
marital-status       0
occupation        2809
relationship         0
race                 0
gender               0
capital-gain         0
capital-loss         0
hours-per-week       0
native-country     857
income               0
dtype: int64
```

```
#Dropped any rows with missing values
df.dropna(axis=0,inplace=True)
df
```

```
       age     workclass  fnlwgt     education  educational-num  \
0       25       Private  226802          11th                7
1       38       Private   89814       HS-grad                9
2       28     Local-gov  336951    Assoc-acdm               12
3       44       Private  160323  Some-college               10
5       34       Private  198693          10th                6
...    ...           ...     ...           ...              ...
48837   27       Private  257302    Assoc-acdm               12
48838   40       Private  154374       HS-grad                9
48839   58       Private  151910       HS-grad                9
48840   22       Private  201490       HS-grad                9
48841   52  Self-emp-inc  287927       HS-grad                9

           marital-status         occupation   relationship   race
gender  \
0           Never-married  Machine-op-inspct      Own-child  Black
Male
1      Married-civ-spouse    Farming-fishing        Husband  White
Male
2      Married-civ-spouse    Protective-serv        Husband  White
Male
3      Married-civ-spouse  Machine-op-inspct        Husband  Black
Male
5           Never-married      Other-service  Not-in-family  White
Male
...                   ...                ...            ...    ...
...
48837  Married-civ-spouse       Tech-support           Wife  White
Female
48838  Married-civ-spouse  Machine-op-inspct        Husband  White
Male
48839             Widowed       Adm-clerical      Unmarried  White
Female
48840       Never-married       Adm-clerical      Own-child  White
Male
48841  Married-civ-spouse    Exec-managerial           Wife  White
Female

       capital-gain  capital-loss  hours-per-week native-country
income
0                 0             0              40  United-States
<=50K
1                 0             0              50  United-States
<=50K
2                 0             0              40  United-States
>50K
```

```
3              7688             0              40  United-States
>50K
5                 0             0              30  United-States
<=50K
...             ...           ...             ...            ...    ..
.
48837             0             0              38  United-States
<=50K
48838             0             0              40  United-States
>50K
48839             0             0              40  United-States
<=50K
48840             0             0              20  United-States
<=50K
48841         15024             0              40  United-States
>50K

[45222 rows x 15 columns]

df.drop_duplicates()
df

       age     workclass  fnlwgt     education  educational-num  \
0       25       Private  226802          11th                7
1       38       Private   89814       HS-grad                9
2       28     Local-gov  336951    Assoc-acdm               12
3       44       Private  160323  Some-college               10
5       34       Private  198693          10th                6
...    ...           ...     ...           ...              ...
48837   27       Private  257302    Assoc-acdm               12
48838   40       Private  154374       HS-grad                9
48839   58       Private  151910       HS-grad                9
48840   22       Private  201490       HS-grad                9
48841   52  Self-emp-inc  287927       HS-grad                9

           marital-status         occupation   relationship   race
gender  \
0           Never-married  Machine-op-inspct      Own-child  Black
Male
1      Married-civ-spouse    Farming-fishing        Husband  White
Male
2      Married-civ-spouse    Protective-serv        Husband  White
Male
3      Married-civ-spouse  Machine-op-inspct        Husband  Black
Male
5           Never-married      Other-service  Not-in-family  White
Male
...                   ...                ...            ...    ...
...
48837  Married-civ-spouse       Tech-support           Wife  White
```

```
Female
48838  Married-civ-spouse  Machine-op-inspct        Husband  White
Male
48839             Widowed       Adm-clerical      Unmarried  White
Female
48840       Never-married       Adm-clerical      Own-child  White
Male
48841  Married-civ-spouse    Exec-managerial           Wife  White
Female

       capital-gain  capital-loss  hours-per-week native-country
income
0                 0             0              40  United-States
<=50K
1                 0             0              50  United-States
<=50K
2                 0             0              40  United-States
>50K
3              7688             0              40  United-States
>50K
5                 0             0              30  United-States
<=50K
...             ...           ...             ...            ...    ..
.
48837             0             0              38  United-States
<=50K
48838             0             0              40  United-States
>50K
48839             0             0              40  United-States
<=50K
48840             0             0              20  United-States
<=50K
48841         15024             0              40  United-States
>50K

[45222 rows x 15 columns]
```

A dictionary comprehension that builds a dictionary where: each key is a unique country name from the 'native-country' column each value is a subset DataFrame containing just rows for that country sub - a DataFrame (just the rows where 'native-country' == country') country: a string {country: sub for country, sub in ...} You're looping over each (country, sub_df) pair from the groupby You're storing them as key-value pairs: {country: sub_df}.

Output - 'United-States': DataFrame of US records, 'India': DataFrame of Indian records, 'Mexico': DataFrame of Mexican records,

```
country_groups = {country: sub for country, sub in df.groupby('native-
country')}
```

```python
for country, group in list(country_groups.items())[:5]:
    print(f"Country: {country}")
    print(group.head(1))  # or group.head() for more rows
    print("-" * 30)
```

```
Country: Cambodia
     age  workclass  fnlwgt     education  educational-num  \
417   37  State-gov   67083  Some-college               10

         marital-status      occupation    relationship
race  \
417  Married-civ-spouse  Prof-specialty  Other-relative  Asian-Pac-
Islander

    gender  capital-gain  capital-loss  hours-per-week native-country
income
417   Male             0             0              40       Cambodia
<=50K
------------------------------
Country: Canada
     age    workclass  fnlwgt  education  educational-num
marital-status  \
868   35  Federal-gov  207973  Doctorate               16  Married-
civ-spouse

         occupation relationship   race gender  capital-gain  capital-
loss  \
868  Prof-specialty      Husband  White   Male             0
0

     hours-per-week native-country income
868              55         Canada  <=50K
------------------------------
Country: China
     age workclass  fnlwgt  education  educational-num      marital-
status  \
945   38   Private  216319  Doctorate               16  Married-civ-
spouse

         occupation relationship                race gender  capital-
gain  \
945  Prof-specialty      Husband  Asian-Pac-Islander   Male
0

     capital-loss  hours-per-week native-country income
945             0              40          China   >50K
------------------------------
Country: Columbia
     age workclass  fnlwgt education  educational-num      marital-
status  \
```

```
385   47   Private  200808      11th                7  Married-civ-
spouse

        occupation relationship   race gender  capital-gain  capital-
loss  \
385  Other-service      Husband  White   Male             0
0

     hours-per-week native-country income
385              35       Columbia  <=50K
------------------------------
Country: Cuba
     age workclass  fnlwgt education  educational-num      marital-
status  \
586   36   Private  300333      11th                7  Married-civ-
spouse

          occupation relationship   race gender  capital-gain
capital-loss  \
586  Exec-managerial      Husband  White   Male             0
0

     hours-per-week native-country income
586              40           Cuba  <=50K
------------------------------

gender_groups = {gender:sub for gender, sub in df.groupby('gender')}

for gender, group in list(gender_groups.items())[:5]:
    print(f"gender: {gender}")
    print(group.head(1))  # or group.head() for more rows
    print("-" * 30)

gender: Female
   age workclass  fnlwgt     education  educational-num marital-status
\
8   24   Private  369667  Some-college               10  Never-married


      occupation relationship   race  gender  capital-gain  capital-
loss  \
8  Other-service    Unmarried  White  Female             0
0

   hours-per-week native-country income
8              40  United-States  <=50K
------------------------------
gender: Male
   age workclass  fnlwgt education  educational-num marital-status  \
0   25   Private  226802      11th                7  Never-married
```

```
          occupation relationship   race gender  capital-gain
capital-loss  \
0  Machine-op-inspct    Own-child  Black   Male             0
0

   hours-per-week native-country income
0              40  United-States  <=50K
------------------------------
```

```
race_groups = {race: sub for race, sub in df.groupby('race')}

for race, group in list(race_groups.items())[:5]:
    print(f"Race: {race}")
    print(group.head(1))  # or group.head() for more rows
    print("-" * 30)
```

```
Race: Amer-Indian-Eskimo
    age workclass  fnlwgt education  educational-num marital-status  \
94   34   Private  198751   Masters               14  Never-married

       occupation   relationship                race gender  capital-
gain  \
94  Other-service  Not-in-family  Amer-Indian-Eskimo   Male
0

    capital-loss  hours-per-week native-country income
94             0              40  United-States  <=50K
------------------------------
Race: Asian-Pac-Islander
     age workclass  fnlwgt     education  educational-num marital-
status  \
141   18   Private  262118  Some-college               10  Never-
married

       occupation relationship                race  gender  capital-
gain  \
141  Adm-clerical    Own-child  Asian-Pac-Islander  Female
0

     capital-loss  hours-per-week native-country income
141             0              22        Germany  <=50K
------------------------------
Race: Black
   age workclass  fnlwgt education  educational-num marital-status  \
0   25   Private  226802      11th                7  Never-married

          occupation relationship   race gender  capital-gain
capital-loss  \
0  Machine-op-inspct    Own-child  Black   Male             0
0
```

```
   hours-per-week native-country income
0              40  United-States  <=50K
------------------------------
Race: Other
    age workclass  fnlwgt     education  educational-num      marital-
status  \
74   46   Private  269034  Some-college               10  Married-civ-
spouse

      occupation relationship   race gender  capital-gain  capital-
loss  \
74  Craft-repair      Husband  Other   Male             0
0

    hours-per-week      native-country income
74              40  Dominican-Republic  <=50K
------------------------------
Race: White
   age workclass  fnlwgt education  educational-num      marital-
status  \
1   38   Private   89814   HS-grad                9  Married-civ-
spouse

        occupation relationship   race gender  capital-gain  capital-
loss  \
1  Farming-fishing      Husband  White   Male             0
0

   hours-per-week native-country income
1              50  United-States  <=50K
------------------------------
```

```
#Creating data subsets from the dictionary
india_df = country_groups['India']
usa_df = country_groups['United-States']
female_df = gender_groups['Female']
male_df = gender_groups['Male']

india_df.head()
```

```
      age  workclass  fnlwgt     education  educational-num  \
398    36    Private  116358       Masters               14
564    26    Private  341672  Some-college               10
1101   55    Private  176219     Bachelors               13
1556   33  State-gov  150688     Doctorate               16
1619   24    Private  109414  Some-college               10

          marital-status         occupation    relationship  \
398   Married-civ-spouse    Exec-managerial         Husband
564        Never-married       Adm-clerical  Other-relative
```

```
1101  Married-civ-spouse  Machine-op-inspct         Husband
1556  Married-civ-spouse     Prof-specialty         Husband
1619       Never-married              Sales  Other-relative

                    race gender  capital-gain  capital-loss  hours-
per-week  \
398   Asian-Pac-Islander   Male             0             0
45
564   Asian-Pac-Islander   Male             0             0
60
1101  Asian-Pac-Islander   Male             0             0
40
1556  Asian-Pac-Islander   Male             0             0
50
1619  Asian-Pac-Islander   Male             0             0
20

     native-country income
398           India  <=50K
564           India  <=50K
1101          India  <=50K
1556          India   >50K
1619          India  <=50K
```

Another way to create subsets

This method is inefficient as we will have to type 40 line for 40 subsets

```
df_us      = df[df['native-country']=='United-States']
df_india   = df[df['native-country']=='India']
df_male    = df[df['gender']=='Male']
df_female  = df[df['gender']=='Female']
df_white   = df[df['race']=='White']
df_black   = df[df['race']=='Black']

df_india.head()
```

```
      age  workclass  fnlwgt     education  educational-num  \
398    36    Private  116358       Masters               14
564    26    Private  341672  Some-college               10
1101   55    Private  176219     Bachelors               13
1556   33  State-gov  150688     Doctorate               16
1619   24    Private  109414  Some-college               10

          marital-status         occupation    relationship  \
398   Married-civ-spouse    Exec-managerial         Husband
564        Never-married       Adm-clerical  Other-relative
1101  Married-civ-spouse  Machine-op-inspct         Husband
1556  Married-civ-spouse     Prof-specialty         Husband
```

```
1619       Never-married              Sales  Other-relative

                     race gender  capital-gain  capital-loss  hours-
per-week  \
398   Asian-Pac-Islander   Male             0             0
45
564   Asian-Pac-Islander   Male             0             0
60
1101  Asian-Pac-Islander   Male             0             0
40
1556  Asian-Pac-Islander   Male             0             0
50
1619  Asian-Pac-Islander   Male             0             0
20

     native-country income
398           India  <=50K
564           India  <=50K
1101          India  <=50K
1556          India   >50K
1619          India  <=50K
```

```
# Vertical concatenation (union) of US + India records:
merged = pd.concat([india_df, usa_df],ignore_index=True)
merged
```

```
       age     workclass  fnlwgt     education  educational-num  \
0       36       Private  116358       Masters               14
1       26       Private  341672  Some-college               10
2       55       Private  176219     Bachelors               13
3       33     State-gov  150688     Doctorate               16
4       24       Private  109414  Some-college               10
...    ...           ...     ...           ...              ...
41434   27       Private  257302    Assoc-acdm               12
41435   40       Private  154374       HS-grad                9
41436   58       Private  151910       HS-grad                9
41437   22       Private  201490       HS-grad                9
41438   52  Self-emp-inc  287927       HS-grad                9

           marital-status         occupation    relationship  \
0      Married-civ-spouse    Exec-managerial         Husband
1           Never-married       Adm-clerical  Other-relative
2      Married-civ-spouse  Machine-op-inspct         Husband
3      Married-civ-spouse     Prof-specialty         Husband
4           Never-married              Sales  Other-relative
...                   ...                ...             ...
41434  Married-civ-spouse       Tech-support            Wife
41435  Married-civ-spouse  Machine-op-inspct         Husband
41436             Widowed       Adm-clerical       Unmarried
41437       Never-married       Adm-clerical       Own-child
```

```
41438  Married-civ-spouse    Exec-managerial            Wife

                      race  gender  capital-gain  capital-loss  hours-
per-week  \
0       Asian-Pac-Islander    Male             0             0
45
1       Asian-Pac-Islander    Male             0             0
60
2       Asian-Pac-Islander    Male             0             0
40
3       Asian-Pac-Islander    Male             0             0
50
4       Asian-Pac-Islander    Male             0             0
20
...                    ...     ...           ...           ...
...
41434               White  Female             0             0
38
41435               White    Male             0             0
40
41436               White  Female             0             0
40
41437               White    Male             0             0
20
41438               White  Female         15024             0
40

      native-country income
0              India  <=50K
1              India  <=50K
2              India  <=50K
3              India   >50K
4              India  <=50K
...              ...    ...
41434  United-States  <=50K
41435  United-States   >50K
41436  United-States  <=50K
41437  United-States  <=50K
41438  United-States   >50K

[41439 rows x 15 columns]
```

```
sort = df.sort_values(by='hours-per-week',axis=0,ascending=False)
sort
```

```
       age         workclass  fnlwgt     education  educational-num  \
20722   43      Self-emp-inc  286750   Prof-school               15
31741   37           Private  241174     Bachelors               13
2078    33         State-gov  162705  Some-college               10
34884   33  Self-emp-not-inc   67482     Assoc-voc               11
```

```
41994   32           Private  183304     Assoc-voc               11
...    ...               ...     ...           ...              ...
37190   77  Self-emp-not-inc   71676  Some-college               10
9076    39           Private  465334          11th                7
16470   58         State-gov  109567     Doctorate               16
41359   74           Private  260669          10th                6
27732   27           Private  147951       HS-grad                9

           marital-status         occupation    relationship   race
gender  \
20722  Married-civ-spouse     Prof-specialty         Husband  Black
Male
31741  Married-civ-spouse     Prof-specialty         Husband  White
Male
2078             Divorced      Other-service       Unmarried  White
Female
34884            Divorced      Other-service       Unmarried  White
Female
41994  Married-civ-spouse   Transport-moving         Husband  White
Male
...                   ...                ...             ...    ...
...
37190             Widowed       Adm-clerical   Not-in-family  White
Female
9076             Divorced    Farming-fishing       Unmarried  White
Male
16470  Married-civ-spouse     Prof-specialty         Husband  White
Male
41359            Divorced      Other-service   Not-in-family  White
Female
27732       Never-married  Machine-op-inspct  Other-relative  White
Male

       capital-gain  capital-loss  hours-per-week native-country
income
20722             0             0              99  United-States
>50K
31741             0             0              99  United-States
>50K
2078              0             0              99  United-States
>50K
34884             0             0              99  United-States
<=50K
41994             0             0              99  United-States
>50K
...             ...           ...             ...            ...    ..
.
37190             0          1944               1  United-States
<=50K
```

```
9076                0             0                1  United-States
<=50K
16470               0             0                1  United-States
>50K
41359               0             0                1  United-States
<=50K
27732               0             0                1  United-States
<=50K

[45222 rows x 15 columns]

transpose = df.T
transpose

                              0                  1                   2
\
age                          25                 38
28
workclass               Private            Private
Local-gov
fnlwgt                   226802              89814
336951
education                  11th            HS-grad          Assoc-
acdm
educational-num               7                  9
12
marital-status     Never-married  Married-civ-spouse  Married-civ-
spouse
occupation     Machine-op-inspct    Farming-fishing    Protective-
serv
relationship          Own-child            Husband
Husband
race                      Black              White
White
gender                     Male               Male
Male
capital-gain                  0                  0
0
capital-loss                  0                  0
0
hours-per-week               40                 50
40
native-country    United-States      United-States       United-
States
income                   <=50K              <=50K
>50K

                              3             5                   7
\
age                          44            34                  63
```

workclass	Private	Private	Self-emp-not-inc
fnlwgt	160323	198693	104626
education	Some-college	10th	Prof-school
educational-num	10	6	15
marital-status	Married-civ-spouse	Never-married	Married-civ-spouse
occupation	Machine-op-inspct	Other-service	Prof-specialty
relationship	Husband	Not-in-family	Husband
race	Black	White	White
gender	Male	Male	Male
capital-gain	7688	0	3103
capital-loss	0	0	0
hours-per-week	40	30	32
native-country	United-States	United-States	United-States
income	>50K	<=50K	>50K

	8	9	10
\			
age	24	55	65
workclass	Private	Private	Private
fnlwgt	369667	104996	184454
education	Some-college	7th-8th	HS-grad
educational-num	10	4	9
marital-status	Never-married	Married-civ-spouse	Married-civ-spouse
occupation	Other-service	Craft-repair	Machine-op-inspct
relationship	Unmarried	Husband	Husband
race	White	White	White
gender	Female	Male	Male

```
capital-gain                 0                   0                6418

capital-loss                 0                   0                   0

hours-per-week              40                  10                  40

native-country   United-States       United-States       United-States

income                   <=50K               <=50K                >50K


                            11     ...               48832  \
age                         36     ...                  32
workclass          Federal-gov     ...             Private
fnlwgt                  212465     ...               34066
education            Bachelors     ...                10th
educational-num             13     ...                   6
marital-status   Married-civ-spouse  ...  Married-civ-spouse
occupation         Adm-clerical     ...   Handlers-cleaners
relationship            Husband     ...             Husband
race                      White     ...  Amer-Indian-Eskimo
gender                     Male     ...                Male
capital-gain                  0     ...                   0
capital-loss                  0     ...                   0
hours-per-week               40     ...                  40
native-country   United-States     ...       United-States
income                   <=50K     ...                <=50K

                            48833               48834
48835  \
age                         43                  32
53
workclass                Private             Private
Private
fnlwgt                     84661              116138
321865
education             Assoc-voc             Masters
Masters
educational-num             11                  14
14
marital-status   Married-civ-spouse       Never-married  Married-civ-
spouse
occupation                 Sales        Tech-support     Exec-
managerial
relationship            Husband       Not-in-family
Husband
race                      White  Asian-Pac-Islander
White
gender                     Male                Male
Male
```

```
capital-gain                         0                    0
0
capital-loss                         0                    0
0
hours-per-week                      45                   11
40
native-country         United-States                Taiwan        United-
States
income                            <=50K                <=50K
>50K

                               48836                48837
48838  \
age                               22                   27
40
workclass                    Private              Private
Private
fnlwgt                        310152               257302
154374
education              Some-college           Assoc-acdm              HS-
grad
educational-num                   10                   12
9
marital-status     Never-married  Married-civ-spouse  Married-civ-
spouse
occupation       Protective-serv        Tech-support   Machine-op-
inspct
relationship       Not-in-family                Wife
Husband
race                         White                White
White
gender                        Male              Female
Male
capital-gain                     0                    0
0
capital-loss                     0                    0
0
hours-per-week                  40                   38
40
native-country     United-States       United-States       United-
States
income                        <=50K                <=50K
>50K

                              48839           48840                48841
age                              58              22                   52
workclass                   Private         Private         Self-emp-inc
fnlwgt                       151910          201490               287927
education                   HS-grad         HS-grad              HS-grad
```

```
educational-num              9              9                    9
marital-status         Widowed  Never-married  Married-civ-spouse
occupation        Adm-clerical   Adm-clerical     Exec-managerial
relationship         Unmarried      Own-child                Wife
race                     White          White               White
gender                  Female           Male              Female
capital-gain                 0              0               15024
capital-loss                 0              0                   0
hours-per-week              40             20                  40
native-country   United-States  United-States       United-States
income                   <=50K          <=50K                >50K

[15 rows x 45222 columns]
```

```
melted = pd.melt(df,
id_vars=['age','gender','race','occupation'],value_vars=['capital-
gain','capital-loss'],var_name='capital_type' ,value_name='amount')
melted.head()
```

```
   age gender   race         occupation  capital_type  amount
0   25   Male  Black  Machine-op-inspct  capital-gain       0
1   38   Male  White    Farming-fishing  capital-gain       0
2   28   Male  White    Protective-serv  capital-gain       0
3   44   Male  Black  Machine-op-inspct  capital-gain    7688
4   34   Male  White      Other-service  capital-gain       0
```

```
# Convert 'amount' to numeric, forcing errors to NaN
melted['amount'] = pd.to_numeric(melted['amount'], errors='coerce')

# Now safely create the pivot table
casted = pd.pivot_table(
    melted,
    index=['age', 'gender', 'race', 'occupation'],
    columns=['capital_type'],
    values='amount',
    aggfunc='mean'  # or sum, count, etc.
).reset_index()

casted.head()
```

```
capital_type  age  gender                race         occupation  \
0              17  Female  Amer-Indian-Eskimo       Adm-clerical
1              17  Female  Amer-Indian-Eskimo     Other-service
2              17  Female  Asian-Pac-Islander       Adm-clerical
3              17  Female               Black       Adm-clerical
4              17  Female               Black  Handlers-cleaners

capital_type  capital-gain  capital-loss
0                      0.0           0.0
1                    527.5           0.0
2                      0.0           0.0
```

```
3                        0.0          801.0
4                        0.0            0.0
```