In [20]:
```
import pandas as pd
data = pd.read_csv('./adult.data.txt')
```

In [21]:
```
data
```

Out[21]:

	39	State-gov	77516	Bachelors	13	Never-married	Adm-clerical	Not-in-family	White	Male	2174
0	50	Self-emp-not-inc	83311	Bachelors	13	Married-civ-spouse	Exec-managerial	Husband	White	Male	0
1	38	Private	215646	HS-grad	9	Divorced	Handlers-cleaners	Not-in-family	White	Male	0
2	53	Private	234721	11th	7	Married-civ-spouse	Handlers-cleaners	Husband	Black	Male	0
3	28	Private	338409	Bachelors	13	Married-civ-spouse	Prof-specialty	Wife	Black	Female	0
4	37	Private	284582	Masters	14	Married-civ-spouse	Exec-managerial	Wife	White	Female	0
...	...	...	...	...	...	...	...	...	...	...	...
32555	27	Private	257302	Assoc-acdm	12	Married-civ-spouse	Tech-support	Wife	White	Female	0
32556	40	Private	154374	HS-grad	9	Married-civ-spouse	Machine-op-inspct	Husband	White	Male	0
32557	58	Private	151910	HS-grad	9	Widowed	Adm-clerical	Unmarried	White	Female	0
32558	22	Private	201490	HS-grad	9	Never-married	Adm-clerical	Own-child	White	Male	0
32559	52	Self-emp-inc	287927	HS-grad	9	Married-civ-spouse	Exec-managerial	Wife	White	Female	15024

32560 rows × 15 columns

In [22]:
```
file = open('./adult.data.txt', 'r')
def chr_int(a):
    if a.isdigit():return int(a)
    else: return 0
data = []
for line in file:
    data1 = line.split(', ')
    if len(data1) == 15:
        data.append([chr_int(data1[0]), data1[1],
                     chr_int(data1[2]), data1[3],
                     chr_int(data1[4]), data1[5],
                     data1[6], data1[7], data1[8],
                     data1[9], chr_int(data1[10]),
                     chr_int(data1[11]), chr_int(data1[12]),
                     data1[13], data1[14],
                 ])
print (data[0:3])
```

```
[[39, 'State-gov', 77516, 'Bachelors', 13, 'Never-married', 'Adm-clerical',
'Not-in-family', 'White', 'Male', 2174, 0, 40, 'United-States', '<=50K\n'],
[50, 'Self-emp-not-inc', 83311, 'Bachelors', 13, 'Married-civ-spouse', 'Exec-
managerial', 'Husband', 'White', 'Male', 0, 0, 13, 'United-States', '<=50K
\n'], [38, 'Private', 215646, 'HS-grad', 9, 'Divorced', 'Handlers-cleaners',
'Not-in-family', 'White', 'Male', 0, 0, 40, 'United-States', '<=50K\n']]
```

In [23]:
```
df = pd.DataFrame(data)
df.columns = ['age', 'type_employer', 'fnlwgt', 'education', 'education_num',
df
```

Out[23]:

type_employer	fnlwgt	education	education_num	marital	occupation	relationship	race	
State-gov	77516	Bachelors	13	Never-married	Adm-clerical	Not-in-family	White	M
Self-emp-not-inc	83311	Bachelors	13	Married-civ-spouse	Exec-managerial	Husband	White	M
Private	215646	HS-grad	9	Divorced	Handlers-cleaners	Not-in-family	White	M
Private	234721	11th	7	Married-civ-spouse	Handlers-cleaners	Husband	Black	M
Private	338409	Bachelors	13	Married-civ-spouse	Prof-specialty	Wife	Black	Fem
...	...	...	...	...	...	...	...	
Private	257302	Assoc-acdm	12	Married-civ-spouse	Tech-support	Wife	White	Fem
Private	154374	HS-grad	9	Married-civ-spouse	Machine-op-inspct	Husband	White	M
Private	151910	HS-grad	9	Widowed	Adm-clerical	Unmarried	White	Fem
Private	201490	HS-grad	9	Never-married	Adm-clerical	Own-child	White	M
Self-emp-inc	287927	HS-grad	9	Married-civ-spouse	Exec-managerial	Wife	White	Fem

× 15 columns

In [25]:
```
ml = df[df.income == ">50K\n"]
ml
```

Out[25]:

	age	type_employer	fnlwgt	education	education_num	marital	occupation	relations
7	52	Self-emp-not-inc	209642	HS-grad	9	Married-civ-spouse	Exec-managerial	Husba
8	31	Private	45781	Masters	14	Never-married	Prof-specialty	Not-in-far
9	42	Private	159449	Bachelors	13	Married-civ-spouse	Exec-managerial	Husba
10	37	Private	280464	Some-college	10	Married-civ-spouse	Exec-managerial	Husba
11	30	State-gov	141297	Bachelors	13	Married-civ-spouse	Prof-specialty	Husba
...	...	...	...	...	...	...	...	...

In [28]:
```
ml1 = df[(df.sex == 'Female') & (df.income == '>50K\n')]
ml1
```

Out[28]:

	age	type_employer	fnlwgt	education	education_num	marital	occupation	relationship
8	31	Private	45781	Masters	14	Never-married	Prof-specialty	Not-in-family
19	43	Self-emp-not-inc	292175	Masters	14	Divorced	Exec-managerial	Unmarried
52	47	Private	51835	Prof-school	15	Married-civ-spouse	Prof-specialty	Wife
67	53	Private	169846	HS-grad	9	Married-civ-spouse	Adm-clerical	Wife
84	44	Private	343591	HS-grad	9	Divorced	Craft-repair	Not-in-family
...	...	...	...	...	...	...	...	..
32530	35	?	320084	Bachelors	13	Married-civ-spouse	?	Wife
32536	34	Private	160216	Bachelors	13	Never-married	Exec-managerial	Not-in-family
32538	38	Private	139180	Bachelors	13	Divorced	Prof-specialty	Unmarried
32545	39	Local-gov	111499	Assoc-acdm	12	Married-civ-spouse	Adm-clerical	Wife
32560	52	Self-emp-inc	287927	HS-grad	9	Married-civ-spouse	Exec-managerial	Wife

1179 rows × 15 columns

In [ ]:
```
```