PHASE 4: DEVELOPMENT PART 2

PROJECT TITLE: ASSESSMENT OF MARGINAL WORKERS IN TAMILNADU-A SOCIO ECONOMIC ANALYSIS

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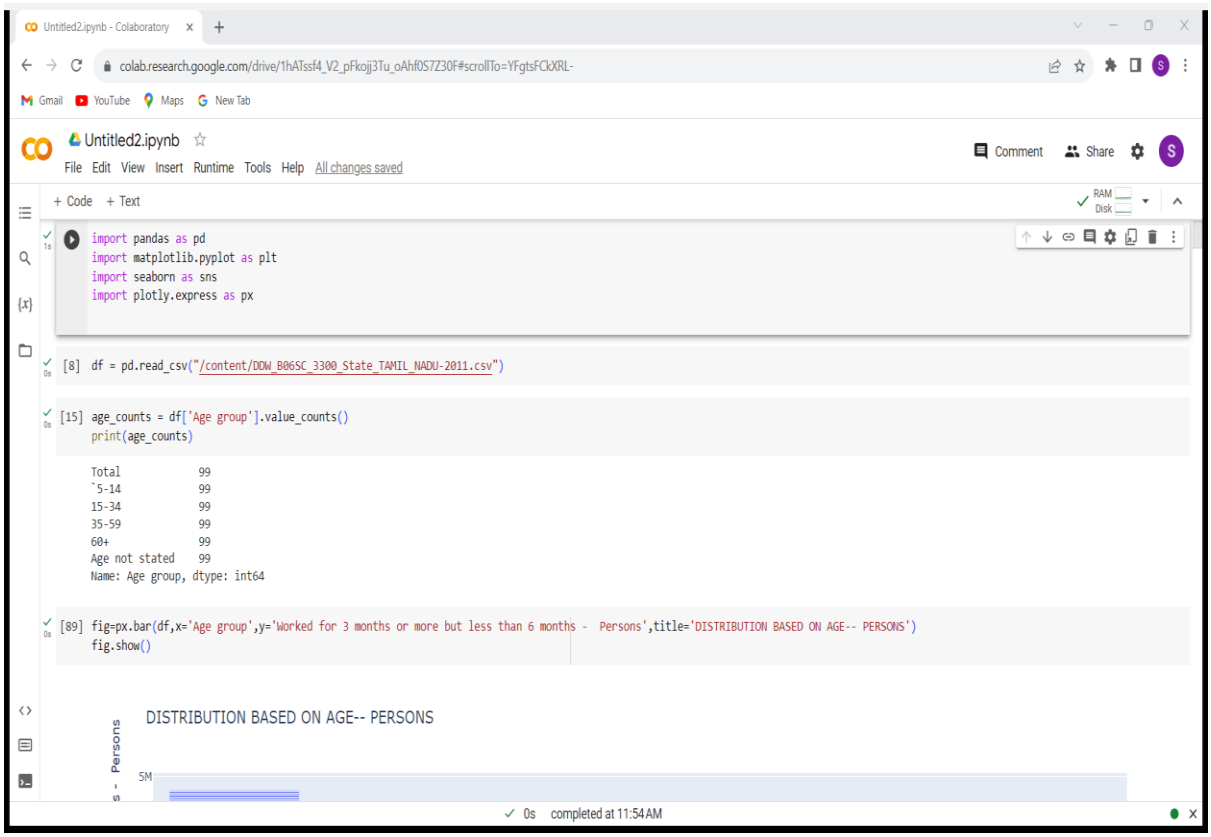
DEVELOPMENT PART 2: DEMOGRAPHIC ANALYSIS AND CREATING VISUALIZATIONS USINGS IBM COGNOS

OBJECTIVES:

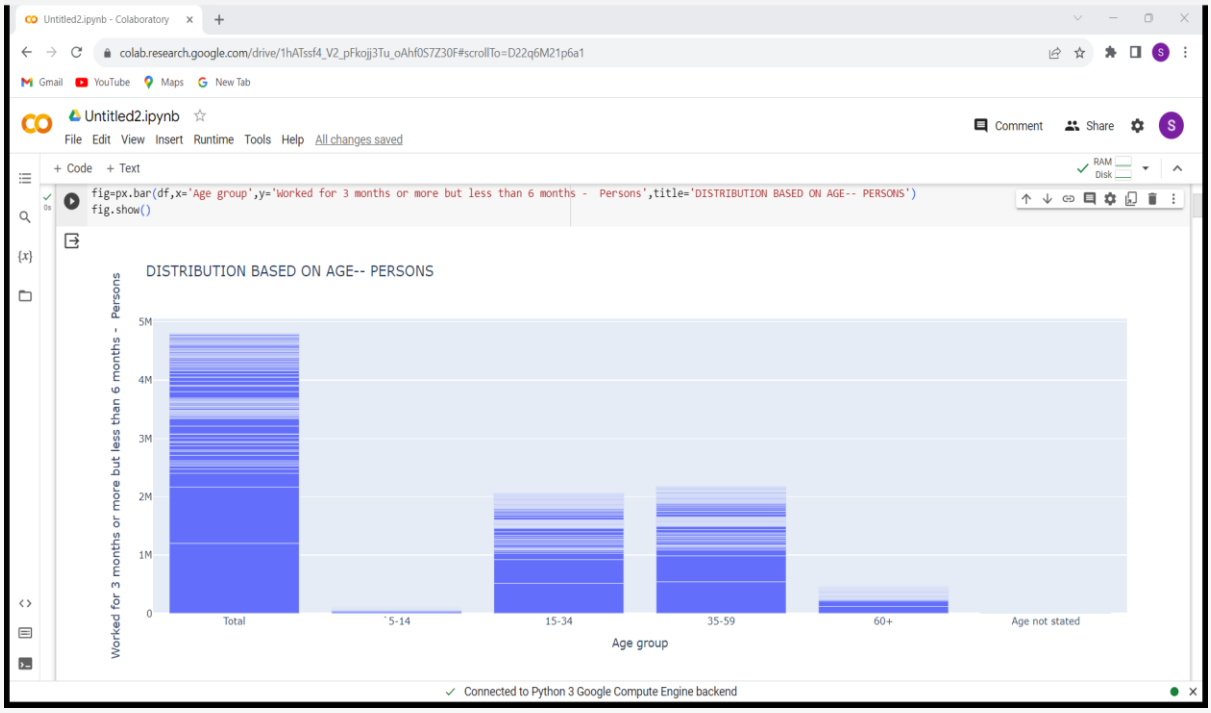
- Perform demographic analysis on the marginal workers dataset.
- Create visualizations using data visualization libraries (e.g., Matplotlib, Seaborn) to show the distribution of marginal workers based on age, industrial category, and sex.

DISTRIBUTION MARGINAL WORKERS BASED ON AGE:

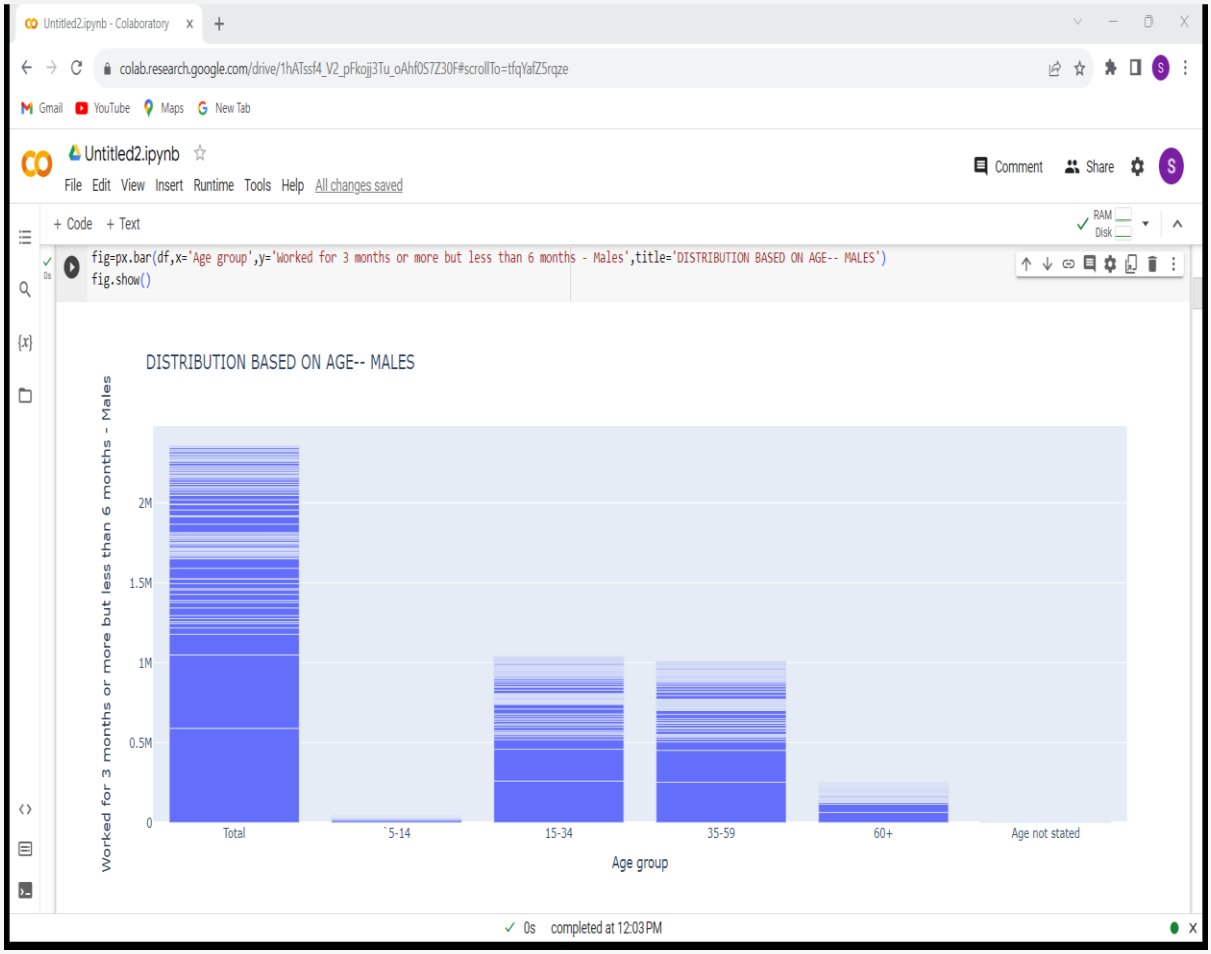
DEMOGRAPHIC ANALYSIS:



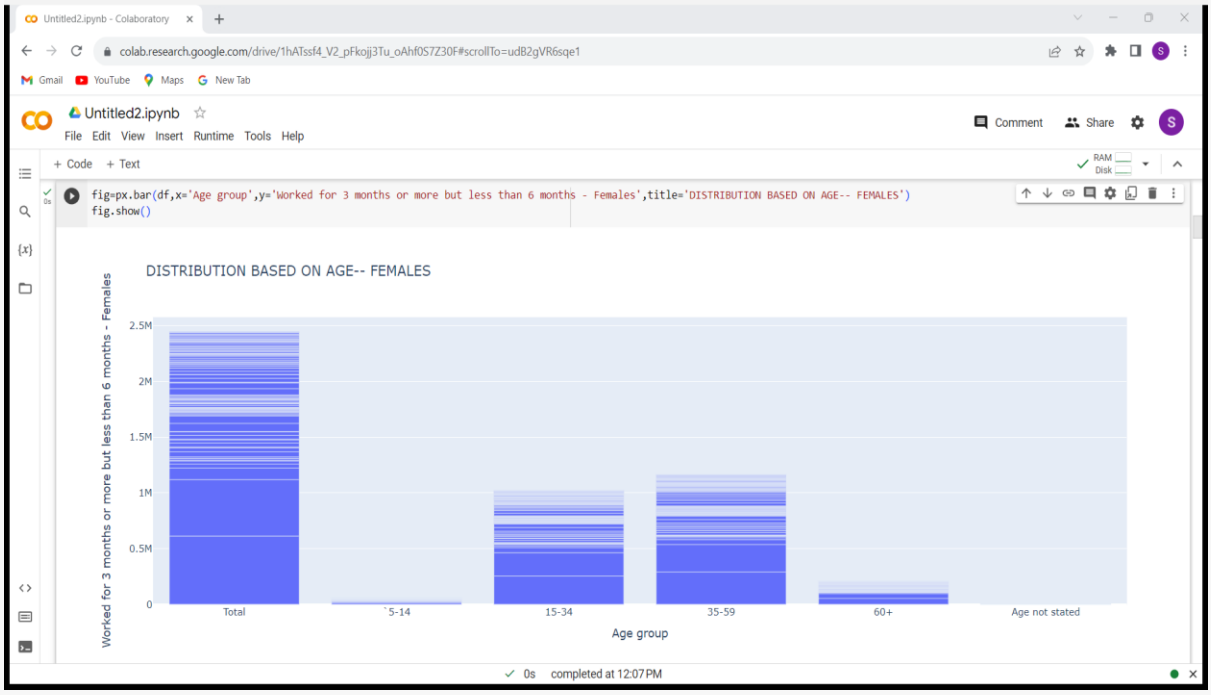
VISUALIZATION(Worked for 3 months or more but less than 6 months Persons WITH RESPECT TO AGE GROUP):



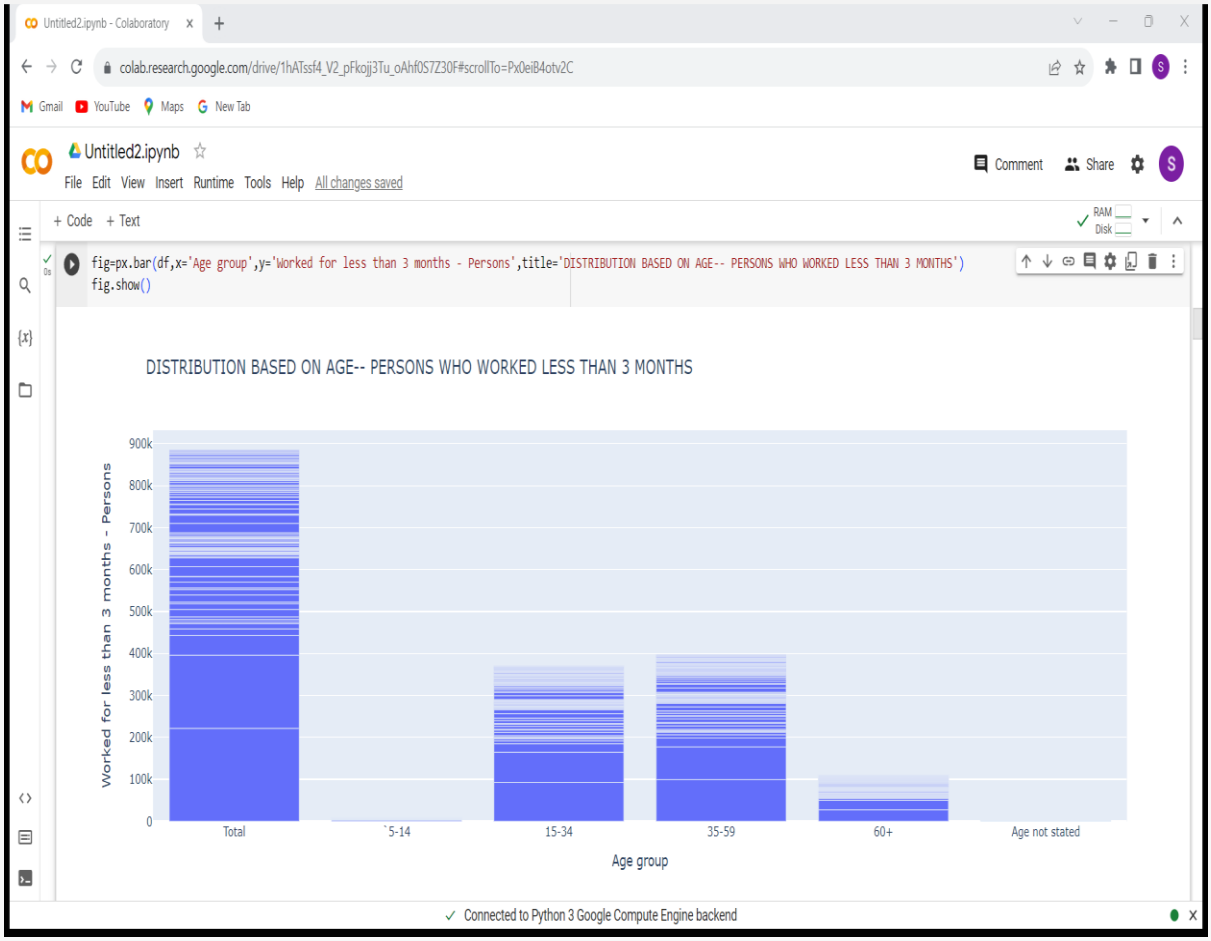
VISUALIZATION(Worked for 3 months or more but less than 6 months Males WITH RESPECT TO AGE GROUP):



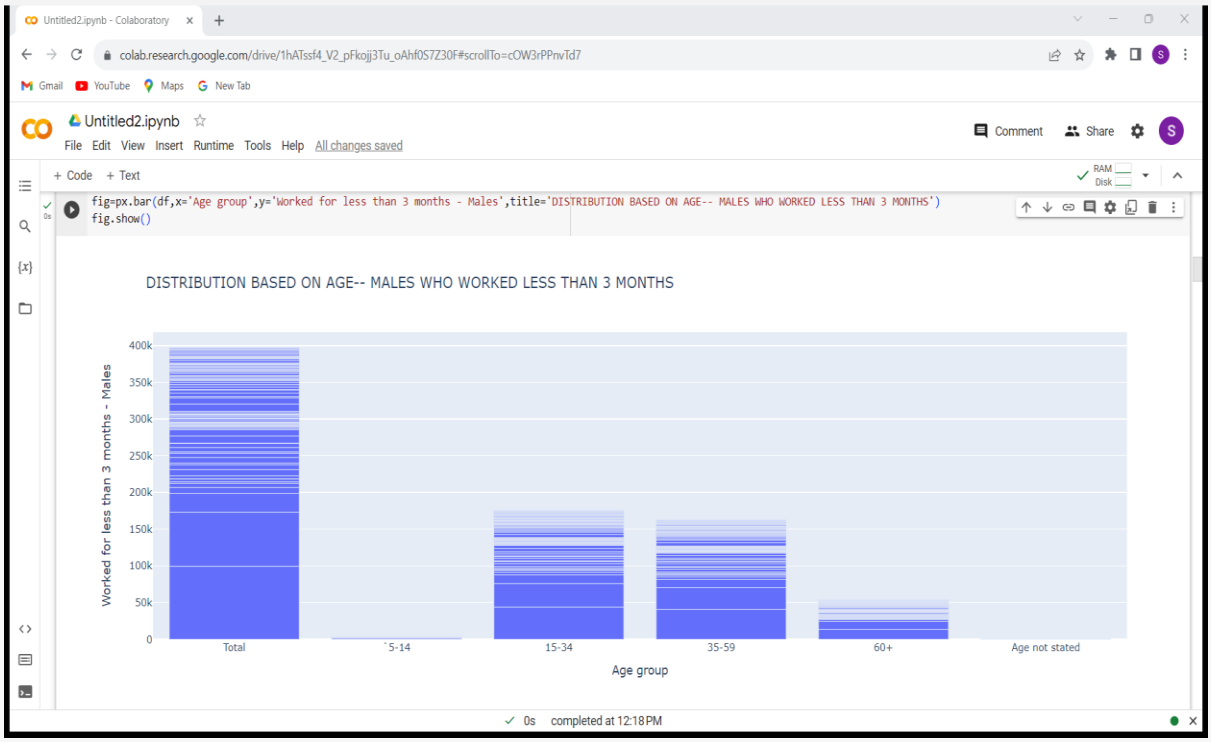
VISUALIZATION(Worked for 3 months or more but less than 6 months Females WITH RESPECT TO AGE GROUP):



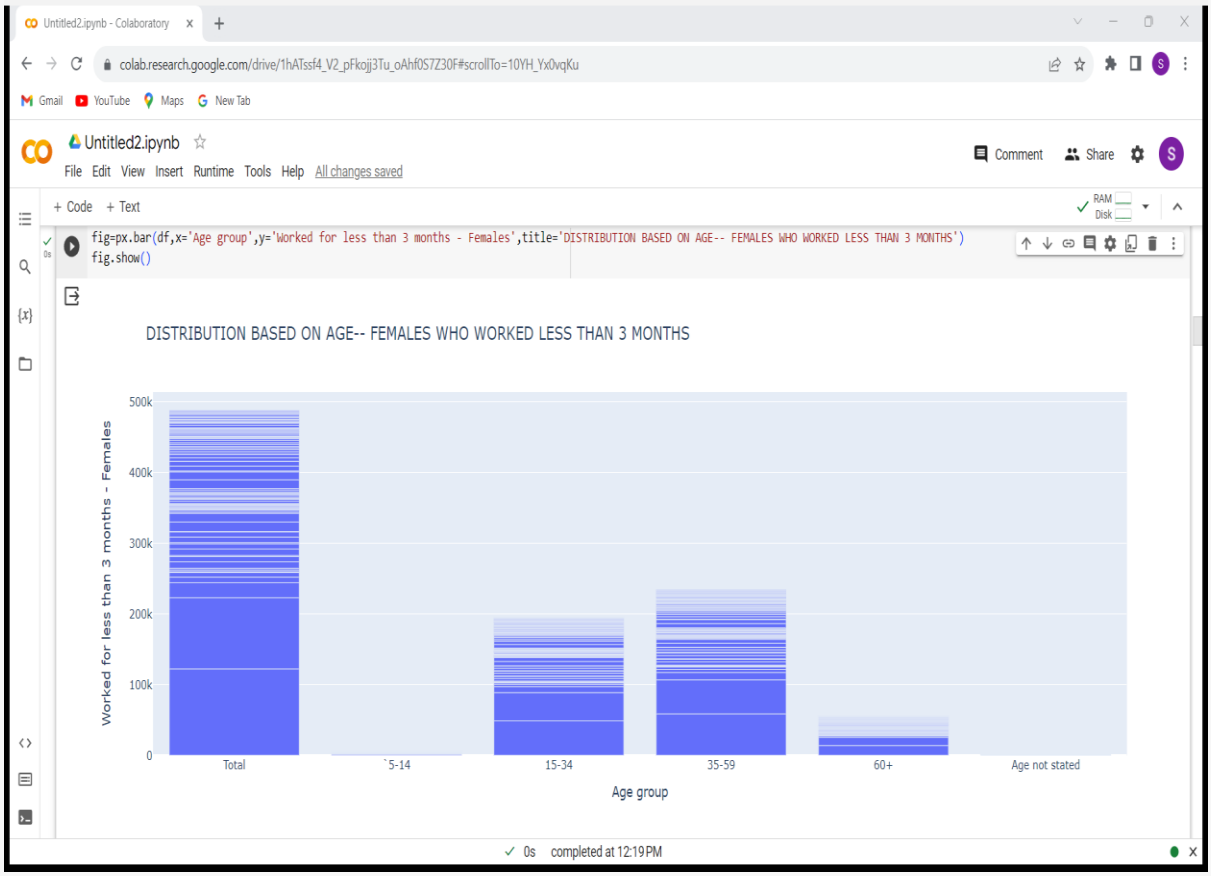
VISUALIZATION(Worked less than 3 months-Persons WITH RESPECT TO AGE GROUP):



VISUALIZATION(Worked less than 3 months-Males WITH RESPECT TO AGE GROUP):

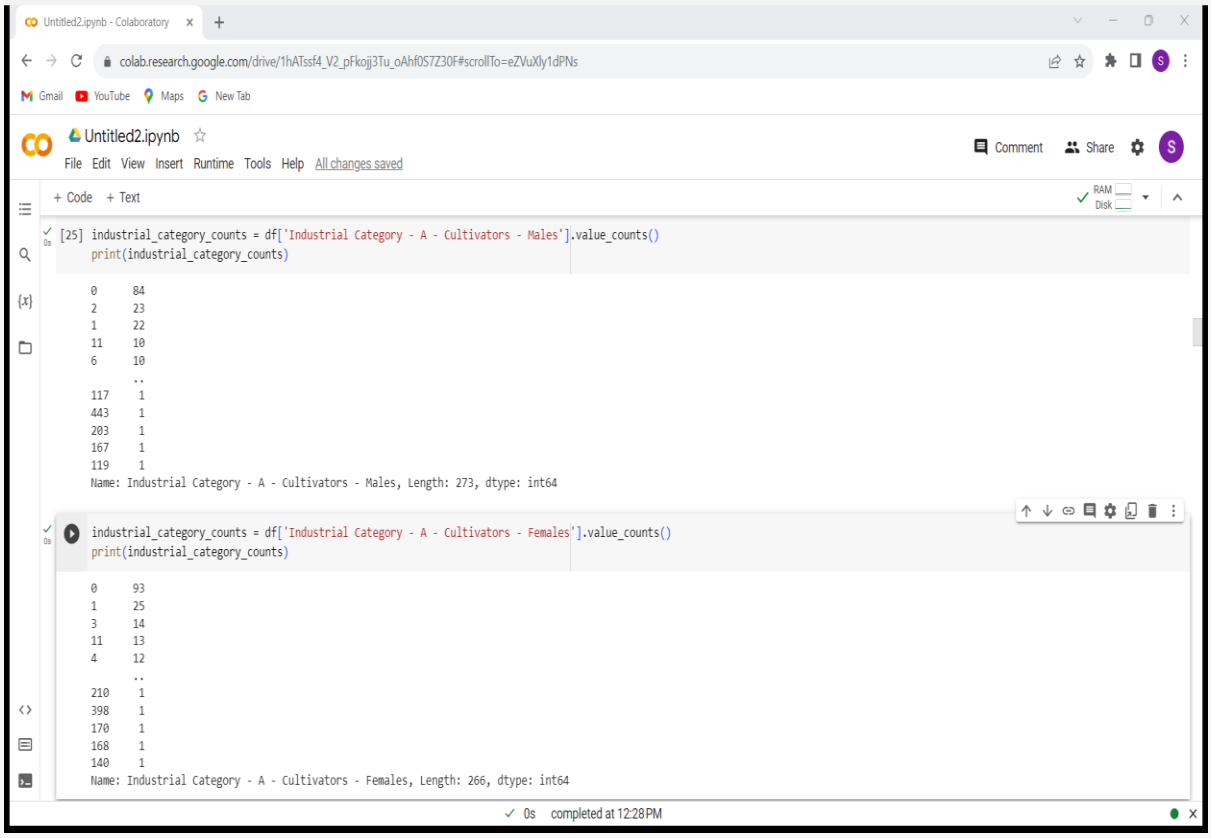


VISUALIZATION(Worked less than 3 months-Females WITH RESPECT TO AGE GROUP):

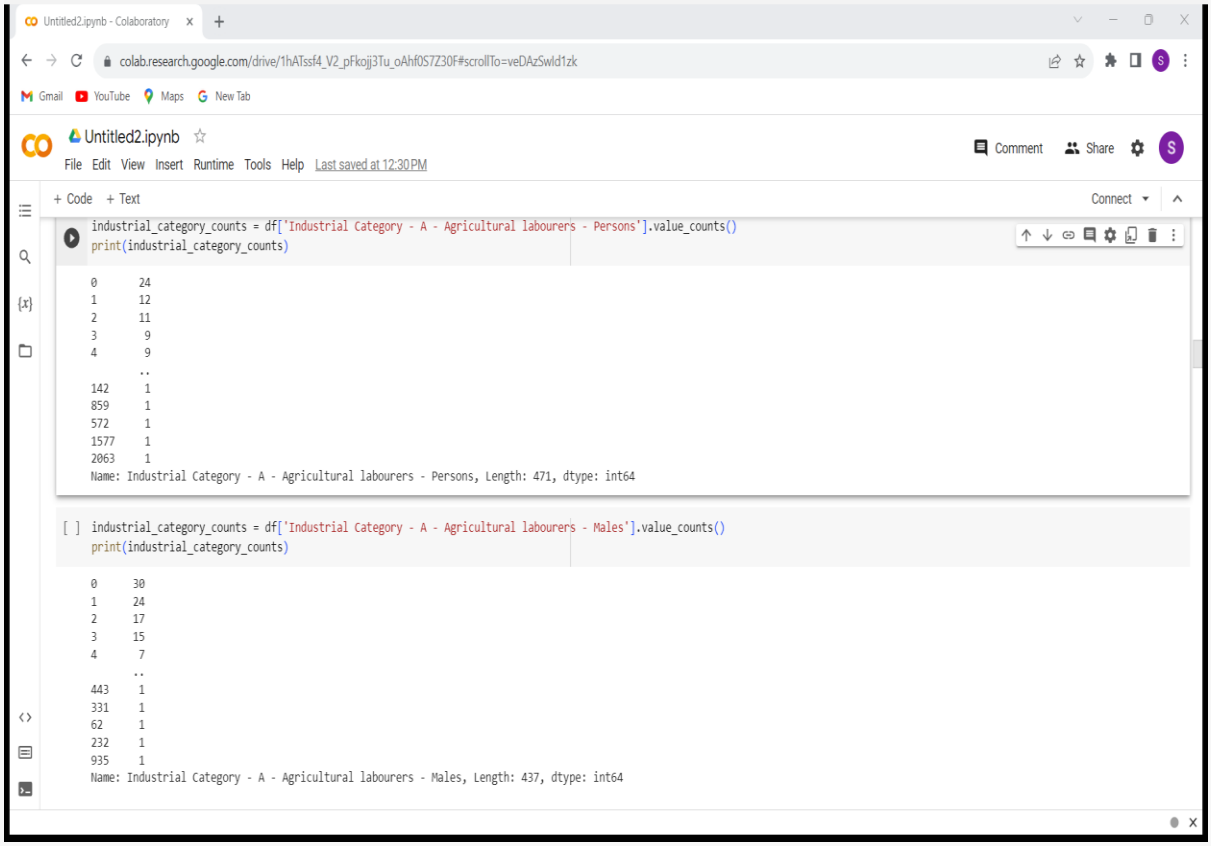


DISTRIBUTION MARGINAL WORKERS BASED ON INDUSTRIAL CATEGORY:

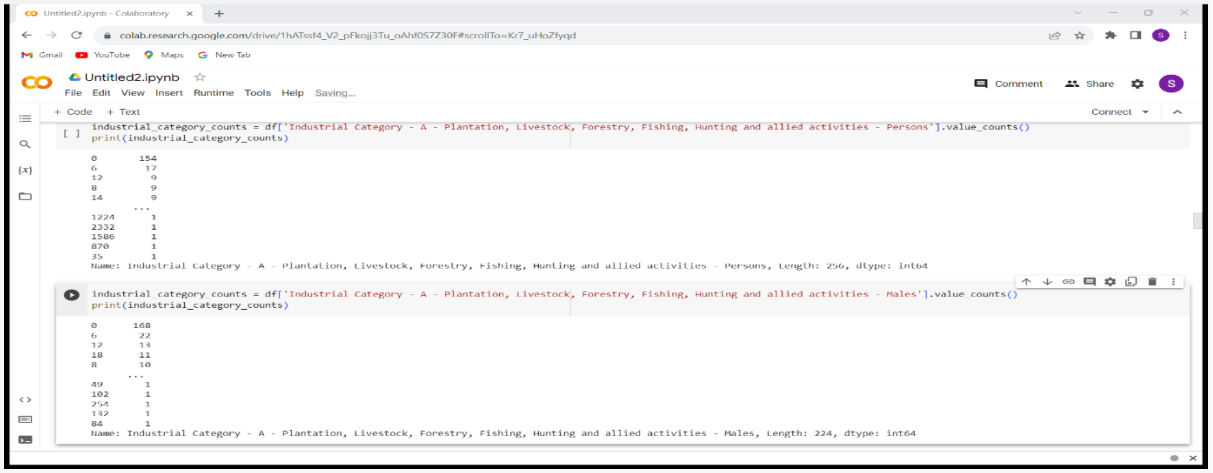
DEMOGRAPHIC ANALYSIS(CULTIVATORS):



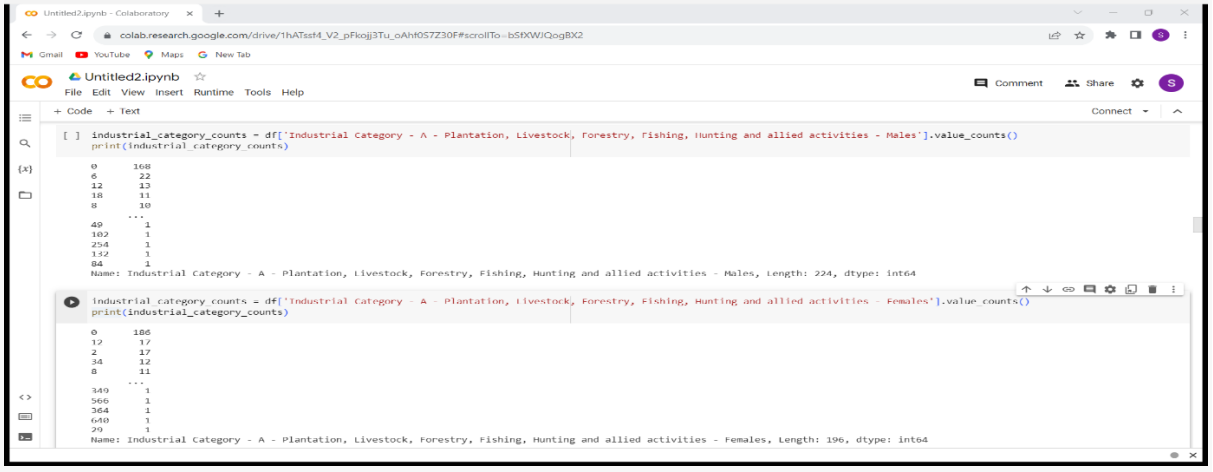
DEMOGRAPHIC ANALYSIS(AGRICULTUAL LABORS):



DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY -A):

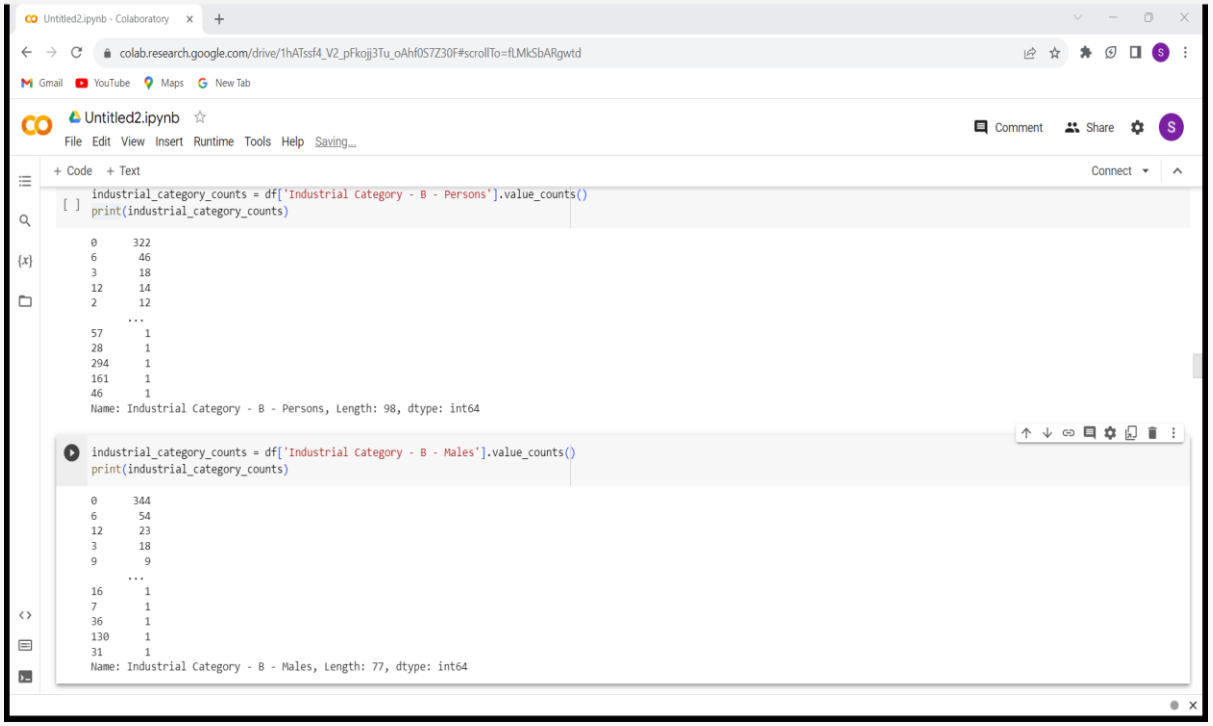


```
industrial_category_counts = df['Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Persons'].value_counts()
print(industrial_category_counts)

0       154
6        17
12        9
8         9
14        9
       ...
1224      1
2332      1
1586      1
870       1
35        1
Name: Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Persons, Length: 256, dtype: int64

industrial_category_counts = df['Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Males'].value_counts()
print(industrial_category_counts)

0      168
6       22
12      13
18      11
8       10
      ...
49       1
102      1
254      1
132      1
84       1
Name: Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Males, Length: 224, dtype: int64
```

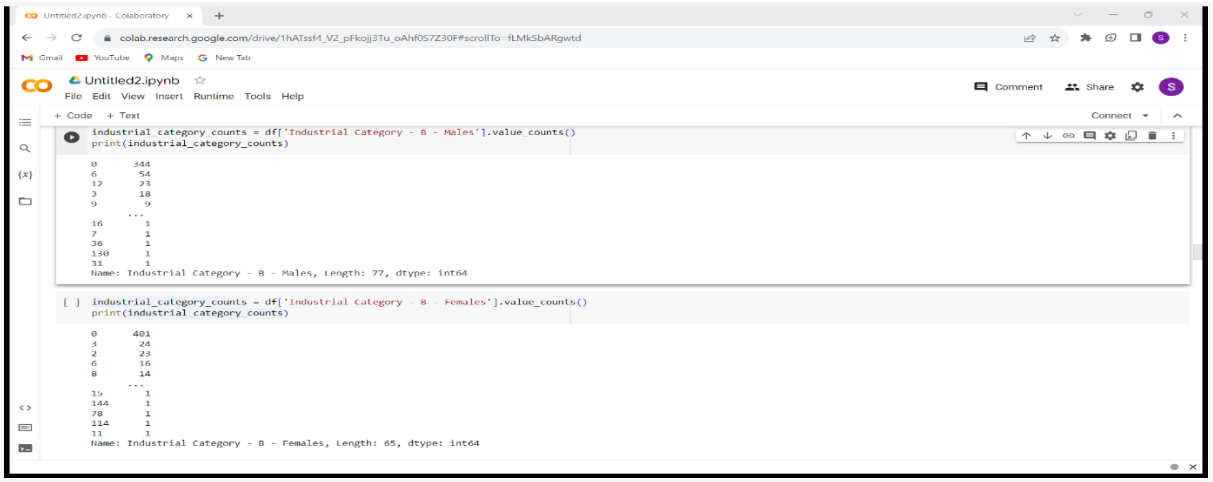


```
industrial_category_counts = df['Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Males'].value_counts()
print(industrial_category_counts)

0      168
6       22
12      13
18      11
8       10
      ...
49       1
102      1
254      1
132      1
84       1
Name: Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Males, Length: 224, dtype: int64

industrial_category_counts = df['Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Females'].value_counts()
print(industrial_category_counts)

0      186
12      17
2       17
34      12
8       11
      ...
349      1
566      1
364      1
640      1
29       1
Name: Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Females, Length: 196, dtype: int64
```

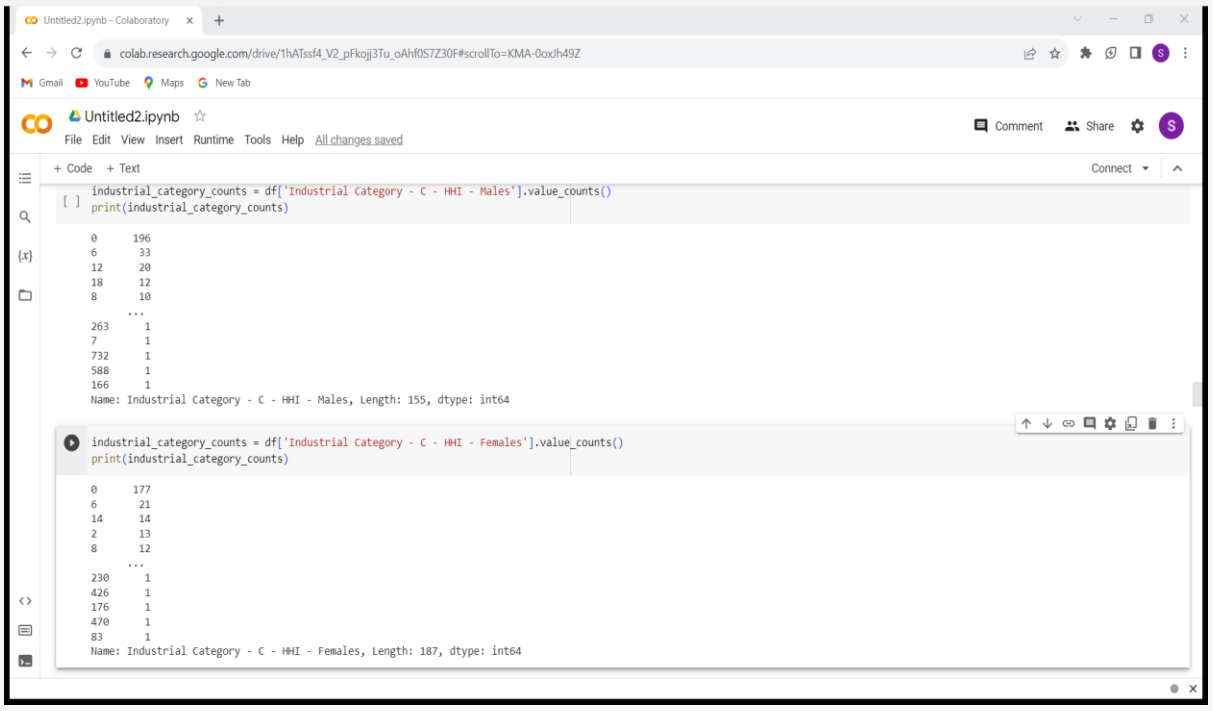
DEMOGRAPHIC ANALYSIS(I NDUSTRIAL CATEGORY B):



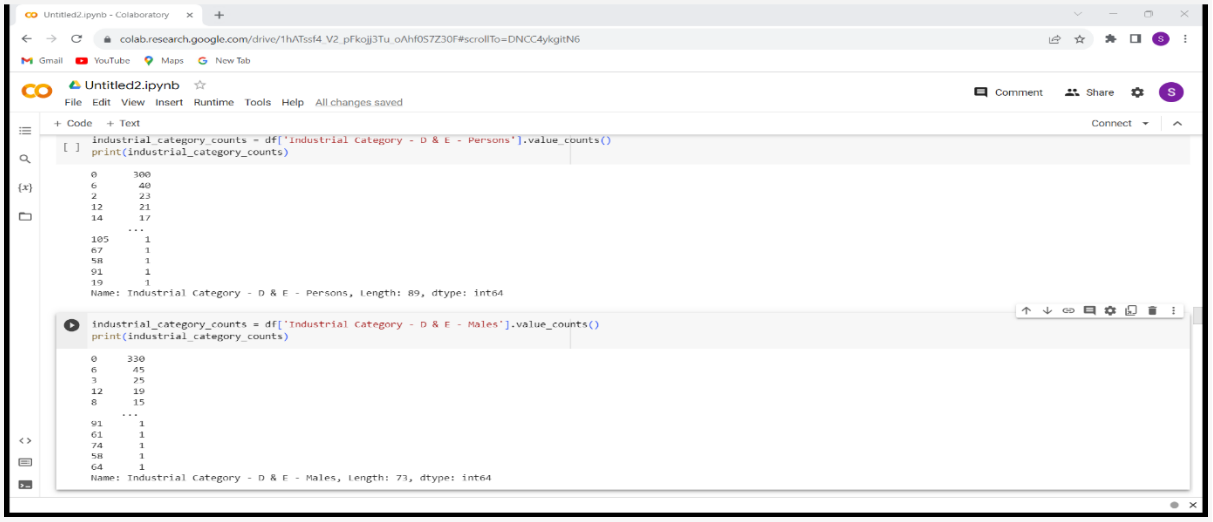
```
industrial_category_counts = df['Industrial Category - B - Persons'].value_counts()
print(industrial_category_counts)

0      322
6       46
3       18
12      14
2       12
      ...
57       1
28       1
294      1
161      1
46       1
Name: Industrial Category - B - Persons, Length: 98, dtype: int64

industrial_category_counts = df['Industrial Category - B - Males'].value_counts()
print(industrial_category_counts)

0      344
6       54
12      23
3       18
9        9
      ...
16       1
7        1
36       1
130      1
31       1
Name: Industrial Category - B - Males, Length: 77, dtype: int64
```



DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY C):



DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY D&E):

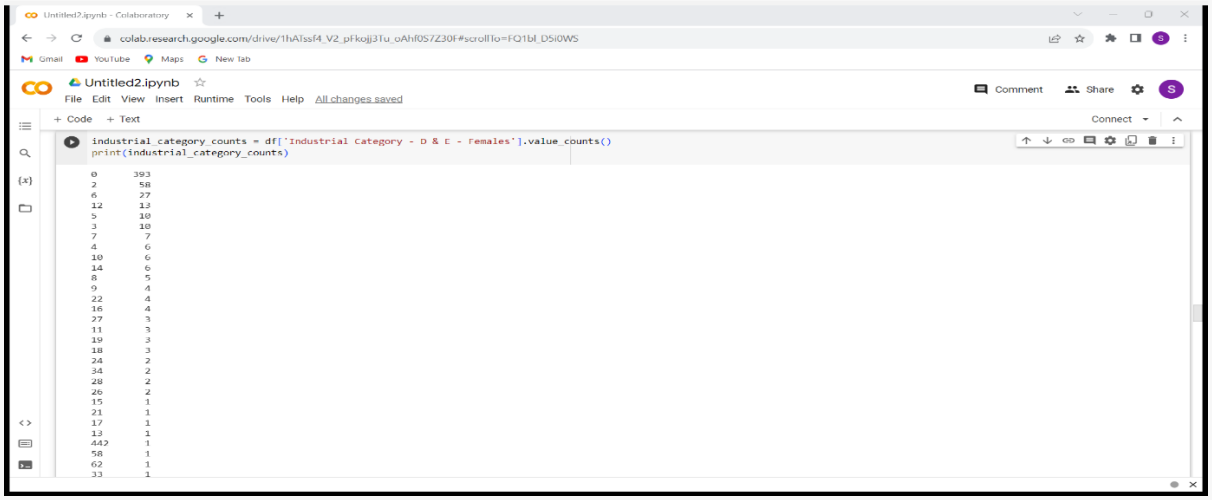


```
industrial_category_counts = df['Industrial Category - D & E - Persons'].value_counts()
print(industrial_category_counts)
```

```
0      300
6       40
2       23
12      21
14      17
      ...
105      1
67       1
58       1
91       1
19       1
Name: Industrial Category - D & E - Persons, Length: 89, dtype: int64
```

```
industrial_category_counts = df['Industrial Category - D & E - Males'].value_counts()
print(industrial_category_counts)
```

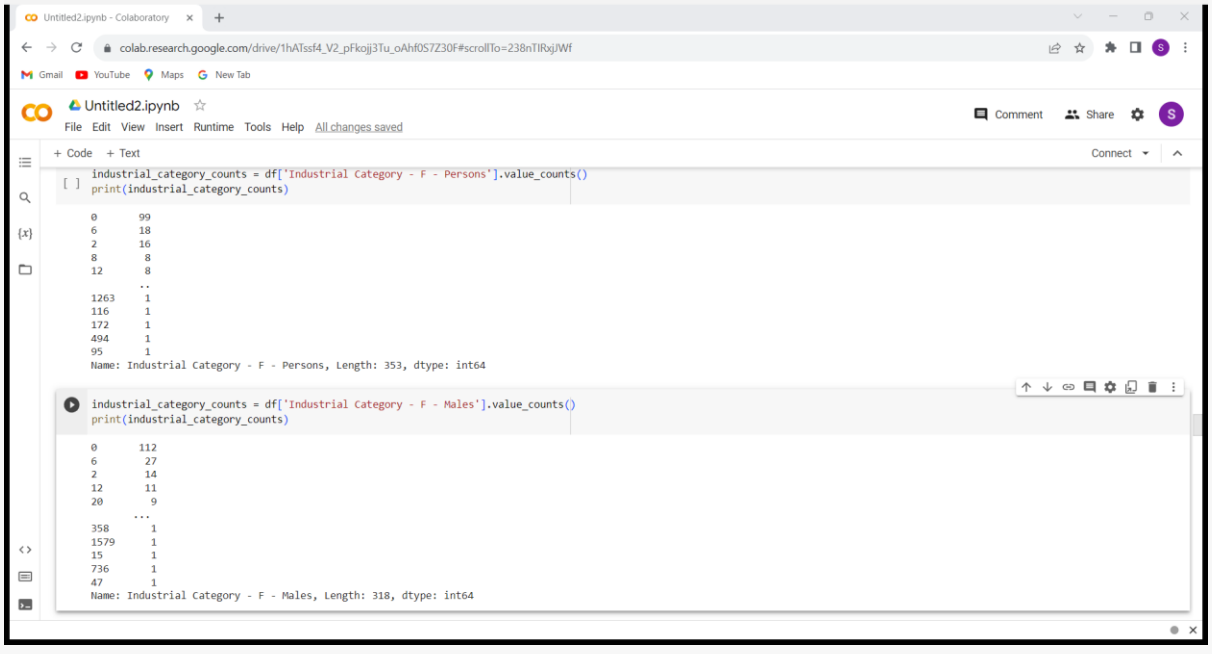
```
0      330
6       45
3       25
12      19
8       15
      ...
91       1
61       1
74       1
58       1
64       1
Name: Industrial Category - D & E - Males, Length: 73, dtype: int64
```



```
industrial_category_counts = df['Industrial Category - D & E - Females'].value_counts()
print(industrial_category_counts)
```

```
0      393
2       58
6       27
12      13
5       10
3       10
7        7
4        6
10       6
14       6
8        5
9        4
22       4
16       4
27       3
11       3
19       3
18       3
24       2
34       2
28       2
26       2
15       1
21       1
17       1
13       1
442      1
58       1
62       1
33       1
```

DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY F):

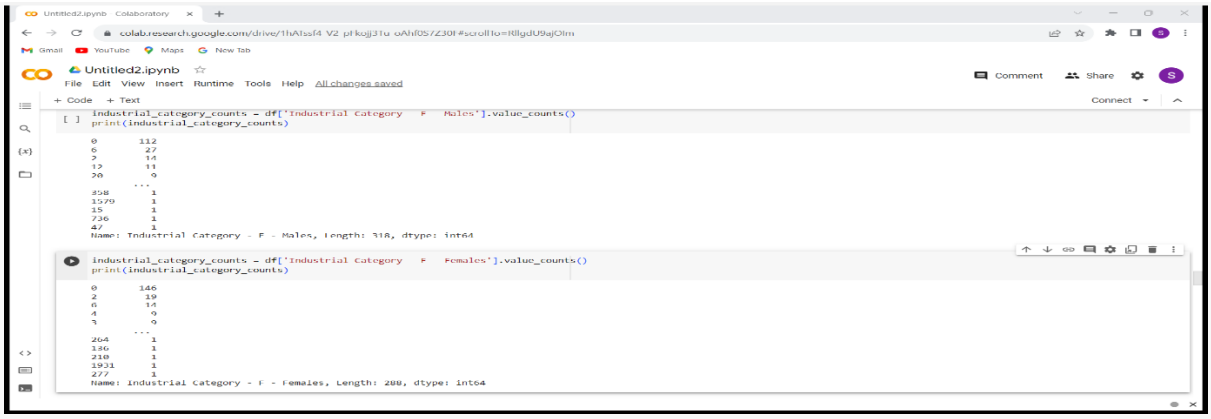


```
industrial_category_counts = df['Industrial Category - F - Persons'].value_counts()
print(industrial_category_counts)
```

```
0      99
6      18
2      16
8       8
12      8
      ..
1263    1
116     1
172     1
494     1
95      1
Name: Industrial Category - F - Persons, Length: 353, dtype: int64
```

```
industrial_category_counts = df['Industrial Category - F - Males'].value_counts()
print(industrial_category_counts)
```

```
0      112
6       27
2       14
12      11
20       9
      ...
358      1
1579     1
15       1
736      1
47       1
Name: Industrial Category - F - Males, Length: 318, dtype: int64
```



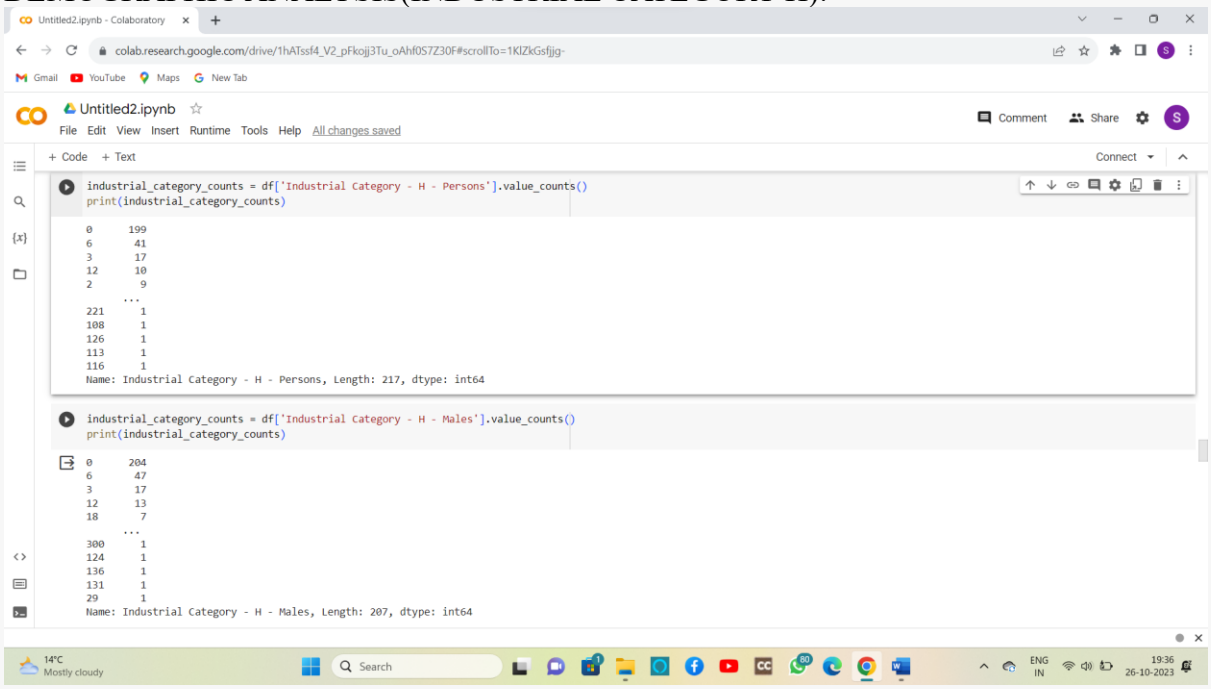
```
industrial_category_counts = df['Industrial Category - F - Males'].value_counts()
print(industrial_category_counts)
```

```
0       112
6        27
2        14
12       11
20        9
       ...
358       1
1579      1
15        1
736       1
47        1
Name: Industrial Category - F - Males, Length: 318, dtype: int64
```

```
industrial_category_counts = df['Industrial Category - F - Females'].value_counts()
print(industrial_category_counts)
```

```
0       146
2        19
6        14
4         9
3         9
       ...
264       1
186       1
210       1
1931      1
277       1
Name: Industrial Category - F - Females, Length: 208, dtype: int64
```

DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY H):

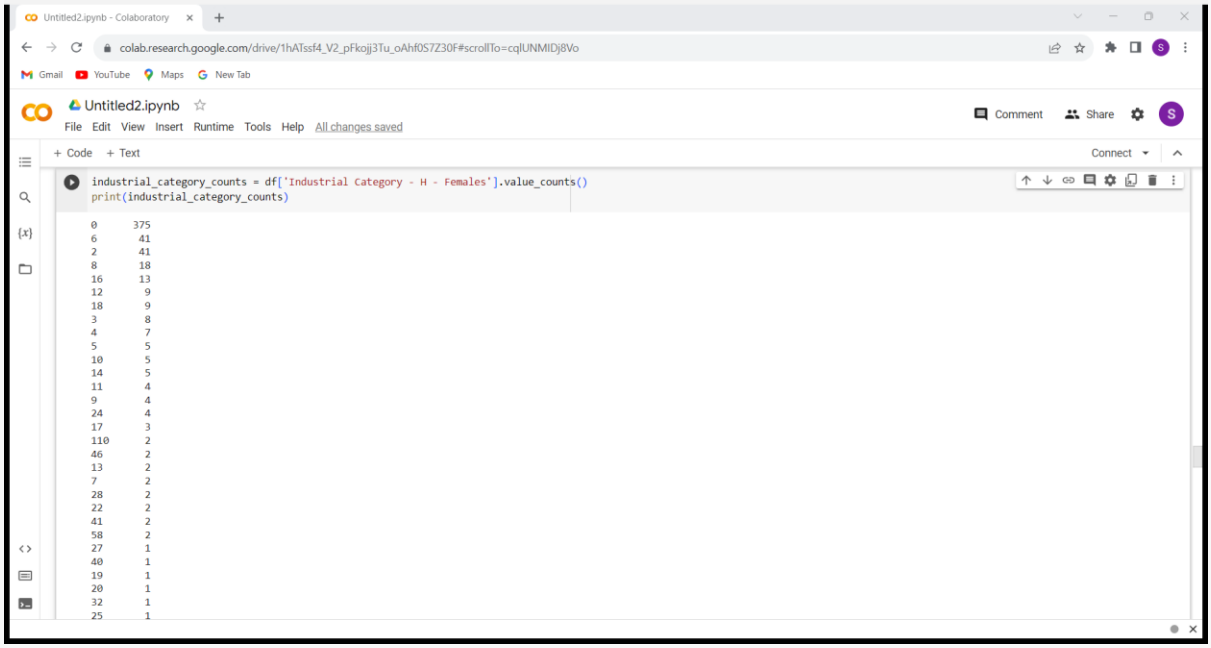


```
industrial_category_counts = df['Industrial Category - H - Persons'].value_counts()
print(industrial_category_counts)
```

```
0      199
6       41
3       17
12      10
2        9
      ...
221      1
108      1
126      1
113      1
116      1
Name: Industrial Category - H - Persons, Length: 217, dtype: int64
```

```
industrial_category_counts = df['Industrial Category - H - Males'].value_counts()
print(industrial_category_counts)
```

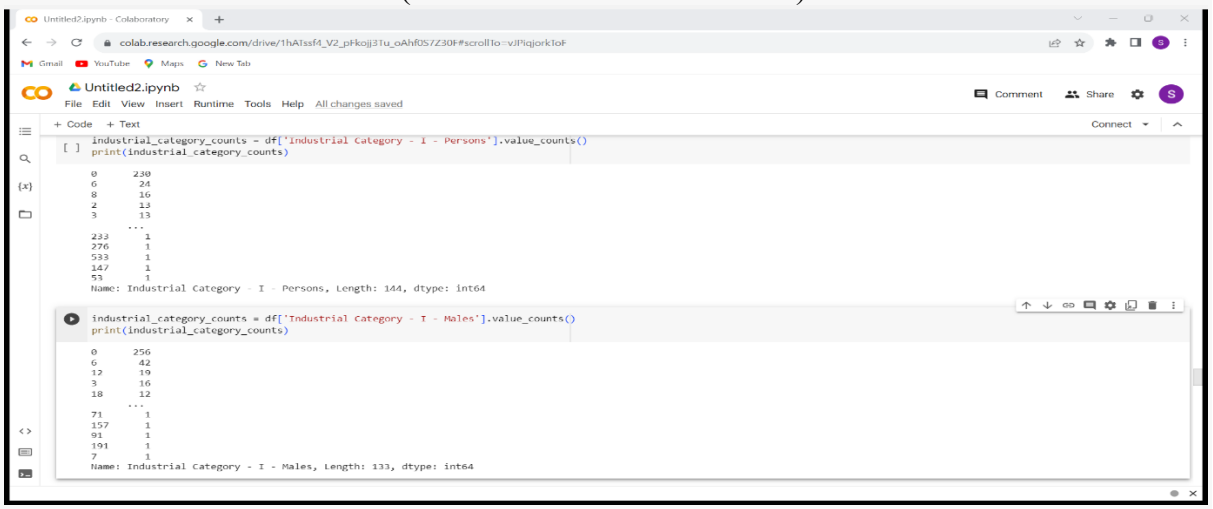
```
0      204
6       47
3       17
12      13
18       7
      ...
300      1
124      1
136      1
131      1
29       1
Name: Industrial Category - H - Males, Length: 207, dtype: int64
```

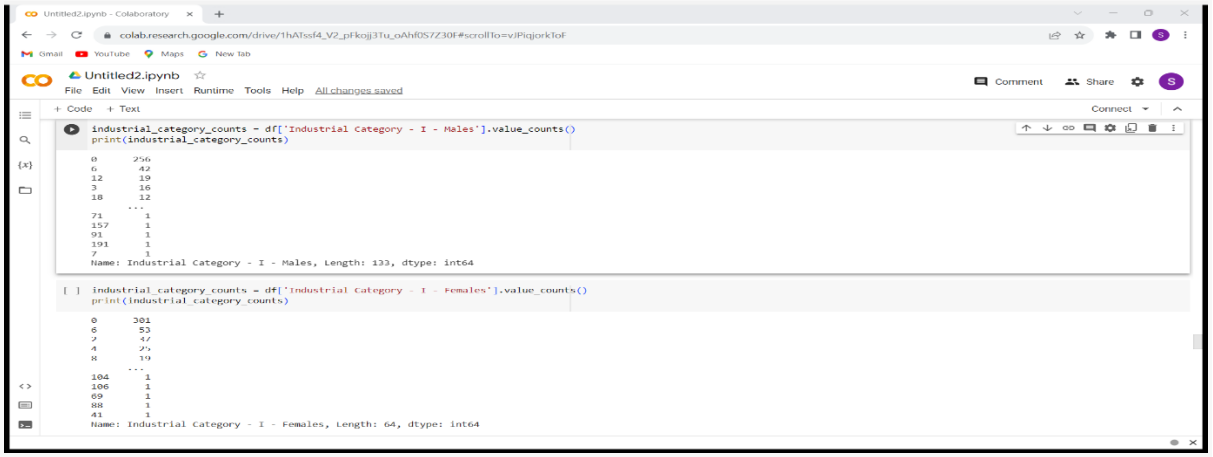


```
industrial_category_counts = df['Industrial Category - H - Females'].value_counts()
print(industrial_category_counts)
```

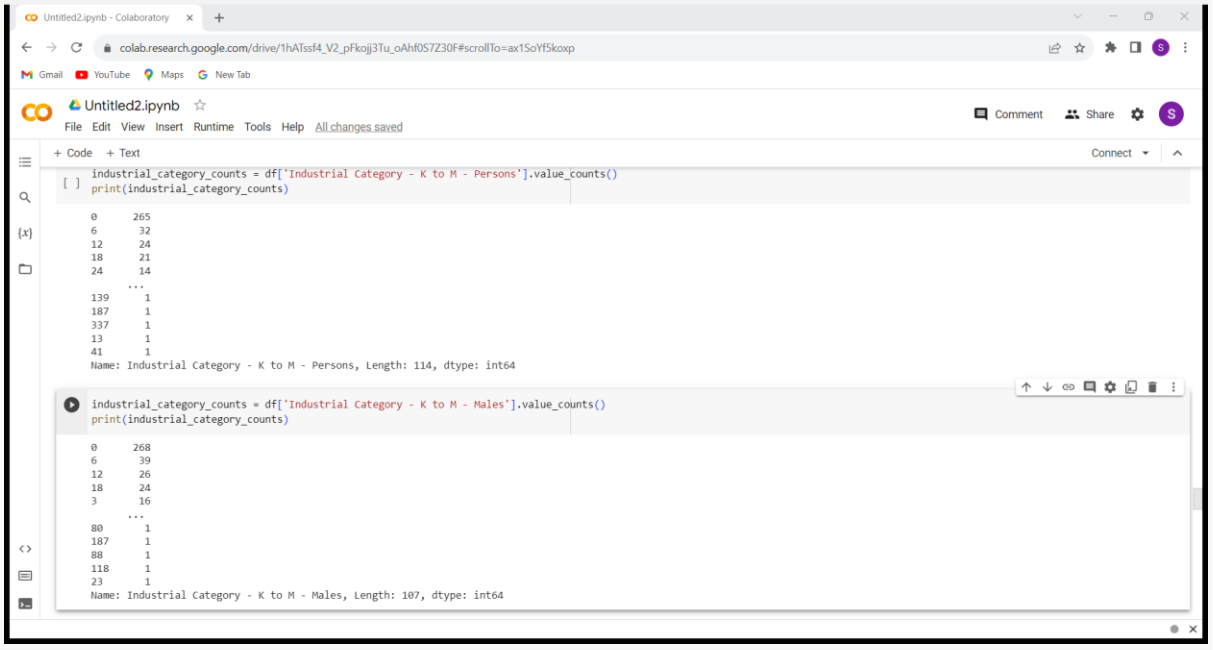
```
0      375
6       41
2       41
8       18
16      13
12       9
18       9
3        8
4        7
5        5
10       5
14       5
11       4
9        4
24       4
17       3
110      2
46       2
13       2
7        2
28       2
22       2
41       2
58       2
27       1
40       1
19       1
20       1
32       1
25       1
```

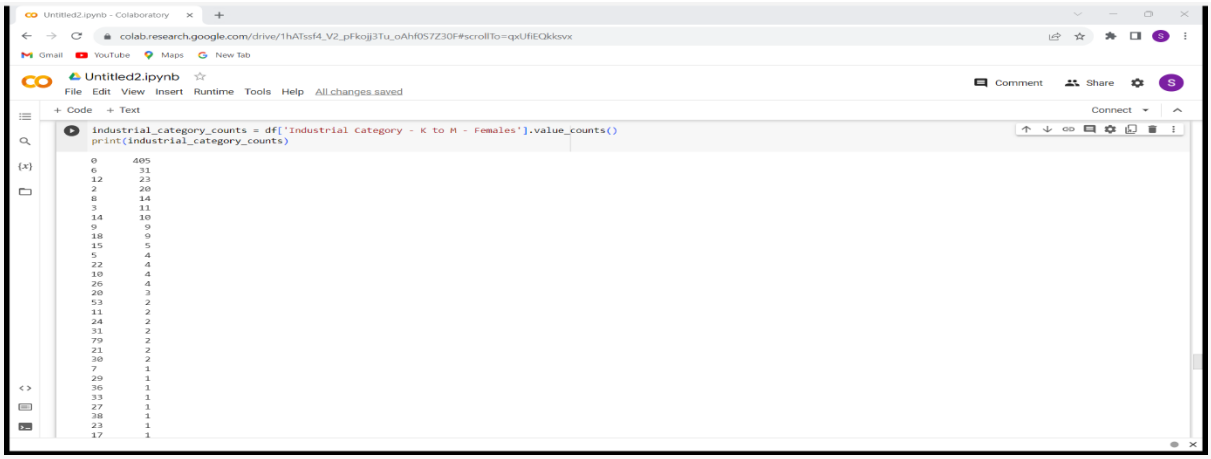
DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY I):



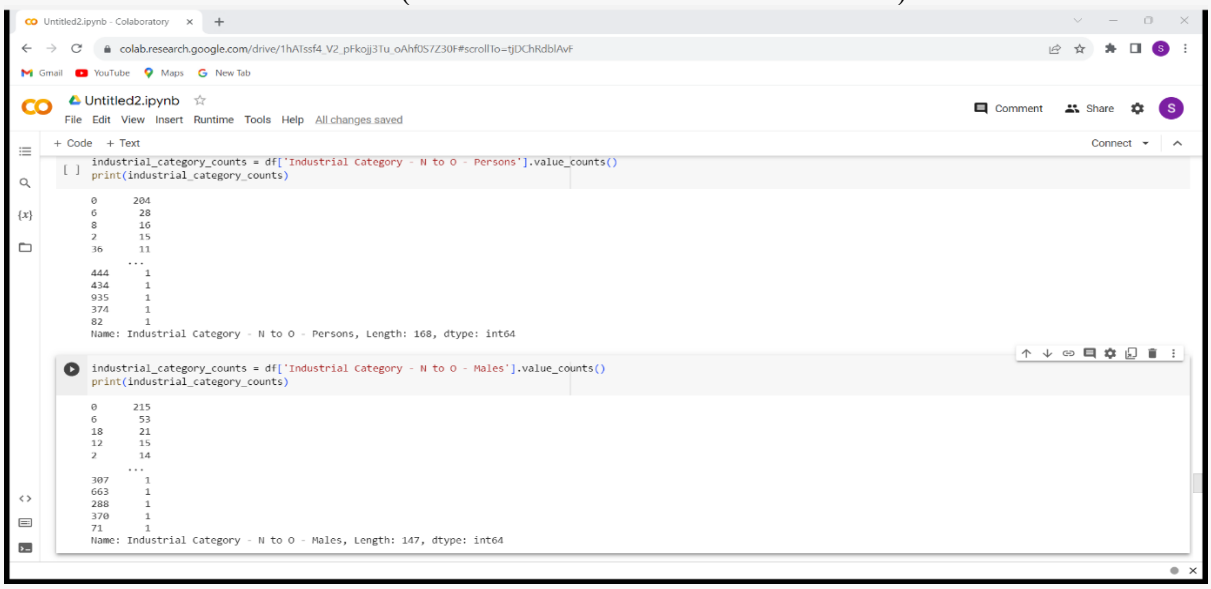


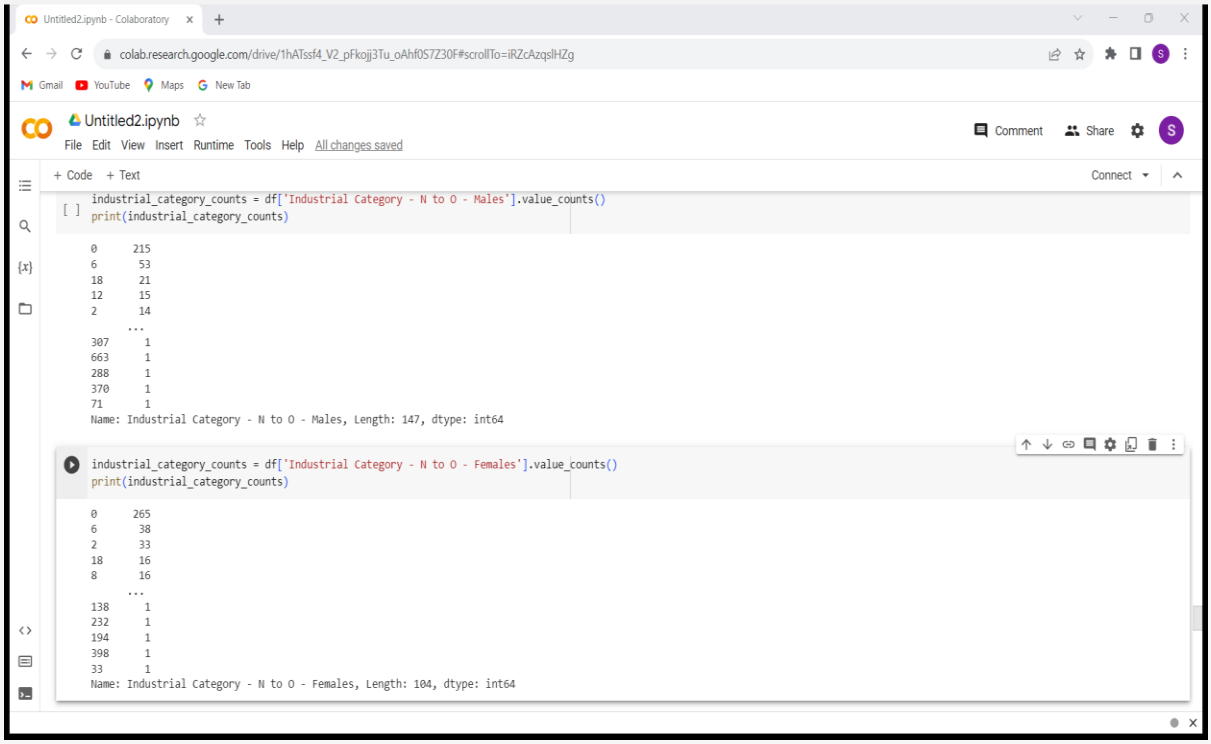
DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORK K&M):



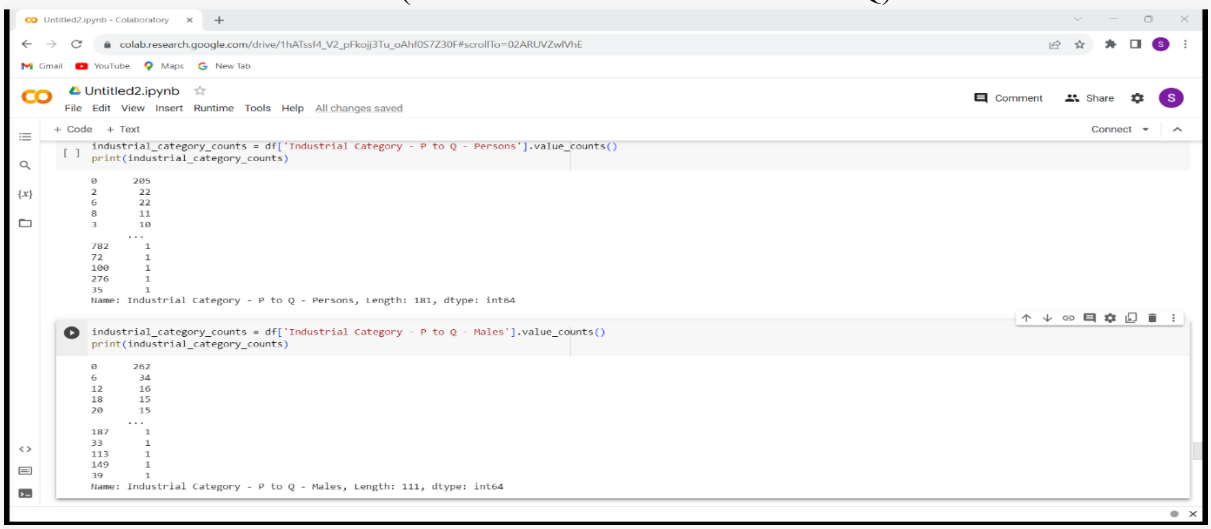


DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY N TO O):



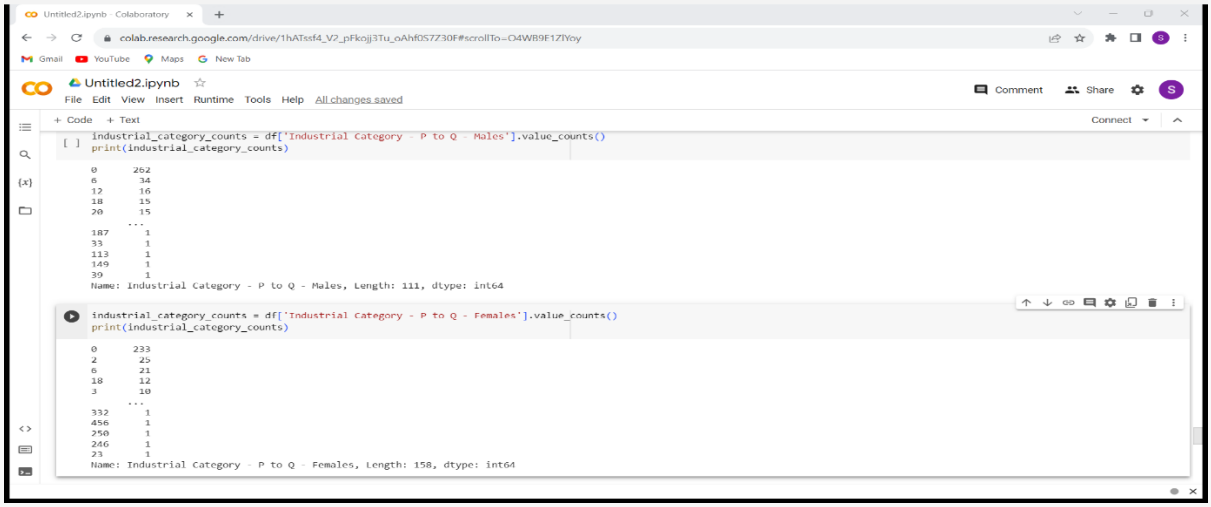


DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY P TO Q):



```
industrial_category_counts = df['Industrial Category - P to Q - Persons'].value_counts()
print(industrial_category_counts)

0      205
2       22
6       22
8       11
3       10
      ...
782      1
72       1
100      1
276      1
35       1
Name: Industrial Category - P to Q - Persons, Length: 181, dtype: int64
```

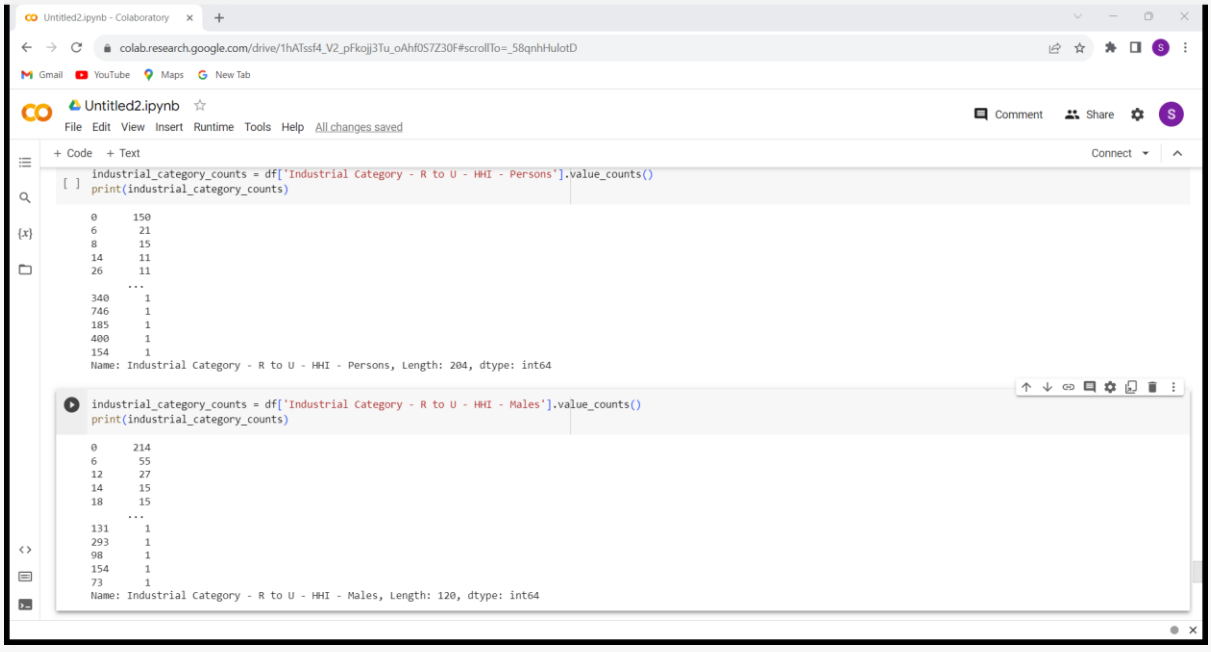
```
industrial_category_counts = df['Industrial Category - P to Q - Males'].value_counts()
print(industrial_category_counts)

0      262
6       34
12      16
18      15
20      15
      ...
187      1
33       1
113      1
149      1
39       1
Name: Industrial Category - P to Q - Males, Length: 111, dtype: int64
```



```
industrial_category_counts = df['Industrial Category - P to Q - Males'].value_counts()
print(industrial_category_counts)

0      262
6       34
12      16
18      15
20      15
      ...
187      1
33       1
113      1
149      1
39       1
Name: Industrial Category - P to Q - Males, Length: 111, dtype: int64
```

```
industrial_category_counts = df['Industrial Category - P to Q - Females'].value_counts()
print(industrial_category_counts)

0      233
2       25
6       21
18      12
3       10
      ...
332      1
456      1
250      1
246      1
23       1
Name: Industrial Category - P to Q - Females, Length: 158, dtype: int64
```

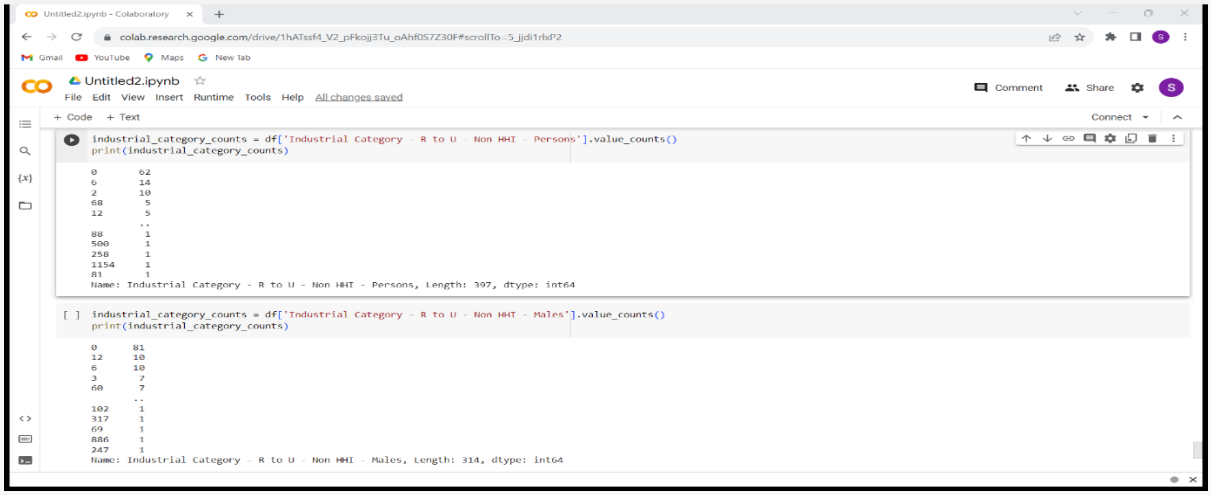
DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY R TO U):

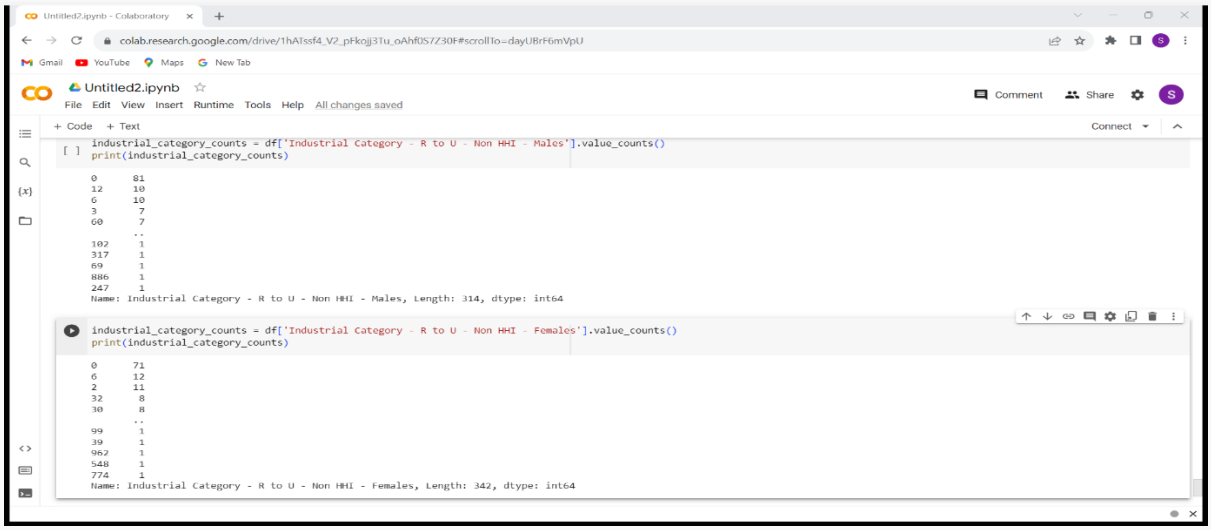


```
industrial_category_counts = df['Industrial Category - R to U - HHI - Persons'].value_counts()
print(industrial_category_counts)

0      150
6       21
8       15
14      11
26      11
      ...
340      1
746      1
185      1
400      1
154      1
Name: Industrial Category - R to U - HHI - Persons, Length: 204, dtype: int64
```

```
industrial_category_counts = df['Industrial Category - R to U - HHI - Males'].value_counts()
print(industrial_category_counts)

0      214
6       55
12      27
14      15
18      15
      ...
131      1
293      1
98       1
154      1
73       1
Name: Industrial Category - R to U - HHI - Males, Length: 120, dtype: int64
```

DEMOGRAPHIC ANALYSIS(INDUSTRIAL CATEGORY (R TO U NON HHI):





CONCLUSION:

Thus the demographic analysis and create visualizations are created

The distribution of marginal workers based on age, industrial category, and sex are calculated using data aggregation and manipulation.