

```
In [1]: import pandas as pd
```

```
def calculate_demographic_data(print_data=True):
    # Read data from file
    df = pd.read_csv(r"C:\Users\goura\Desktop\Data Science\Datasets\adult.data.csv")

    # How many of each race are represented in this dataset? This should be a Pandas Series
    race_count = df['race'].value_counts()

    # What is the average age of men?
    average_age_men = df['age'][df['sex']=='Male'].mean()

    # What is the percentage of people who have a Bachelor's degree?
    percentage_bachelors = round(((df['education'] == 'Bachelors').sum()/df.shape[0])*100)

    # What percentage of people with advanced education (`Bachelors`, `Masters`, or `Doctorate`) make more than 50K?
    # What percentage of people without advanced education make more than 50K?

    # with and without `Bachelors`, `Masters`, or `Doctorate`
    higher_education_rich = round((((df['salary']=='>50K') & (df['education'] in ['Bachelors', 'Masters', 'Doctorate'])).sum()/df[(df['education'] in ['Bachelors', 'Masters', 'Doctorate'])].shape[0])*100)
    lower_education_rich = 100-higher_education_rich

    # What is the minimum number of hours a person works per week (hours-per-week)
    min_work_hours = df['hours-per-week'].min()

    # What percentage of the people who work the minimum number of hours per week make more than 50K?
    num_min_workers = (df['hours-per-week']==df['hours-per-week'].min()).sum()/df[(df['hours-per-week']==df['hours-per-week'].min())].shape[0]*100

    rich_percentage = round((((df['hours-per-week']==df['hours-per-week'].min()) & (df['salary']=='>50K')).sum()/df[(df['hours-per-week']==df['hours-per-week'].min())].shape[0])*100)

    # What country has the highest percentage of people that earn >50K?
    highest_earning_country = df[df['salary']=='>50K']['native-country'].value_counts().index[0]
    highest_earning_country_percentage = round(((df[df['salary']=='>50K']['native-country']==highest_earning_country).sum()/df[(df['native-country']==highest_earning_country)].shape[0])*100)

    # Identify the most popular occupation for those who earn >50K in India.
    top_IN_occupation = df[(df['native-country']=="India") & (df['salary']=='>50K')].occupation.value_counts().index[0]

    # DO NOT MODIFY BELOW THIS LINE

    if print_data:
        print("Number of each race:\n", race_count)
        print("Average age of men:", average_age_men)
        print(f"Percentage with Bachelors degrees: {percentage_bachelors}%")
        print(f"Percentage with higher education that earn >50K: {higher_education_rich}%")
        print(f"Percentage without higher education that earn >50K: {lower_education_rich}%")
        print(f"Min work time: {min_work_hours} hours/week")
        print(f"Percentage of rich among those who work fewest hours: {rich_percentage}%")
        print(f"Country with highest percentage of rich: {highest_earning_country}")
        print(f"Highest percentage of rich people in country: {highest_earning_country_percentage}%")
        print(f"Top occupations in India: {top_IN_occupation}")

    return {
        'race_count': race_count,
        'average_age_men': average_age_men,
        'percentage_bachelors': percentage_bachelors,
        'higher_education_rich': higher_education_rich,
        'lower_education_rich': lower_education_rich,
    }
```

```

    'min_work_hours': min_work_hours,
    'rich_percentage': rich_percentage,
    'highest_earning_country': highest_earning_country,
    'highest_earning_country_percentage':
highest_earning_country_percentage,
    'top_IN_occupation': top_IN_occupation
}

```

In [2]: `a=calculate_demographic_data()`

```

Number of each race:
  race
White                27816
Black                 3124
Asian-Pac-Islander   1039
Amer-Indian-Eskimo    311
Other                 271
Name: count, dtype: int64
Average age of men: 39.43354749885268
Percentage with Bachelors degrees: 16.45%
Percentage with higher education that earn >50K: 12.3%
Percentage without higher education that earn >50K: 87.7%
Min work time: 1 hours/week
Percentage of rich among those who work fewest hours: 0.06%
Country with highest percentage of rich: United-States
Highest percentage of rich people in country: 67.56%
Top occupations in India: Prof-specialty

```

In [3]: `for key,values in a.items():`
 `print(key," ",values)`

```

race_count  race
White                27816
Black                 3124
Asian-Pac-Islander   1039
Amer-Indian-Eskimo    311
Other                 271
Name: count, dtype: int64
average_age_men  39.43354749885268
percentage_bachelors  16.45
higher_education_rich  12.3
lower_education_rich  87.7
min_work_hours  1
rich_percentage  0.06
highest_earning_country  United-States
highest_earning_country_percentage  67.56
top_IN_occupation  Prof-specialty

```