

Analytical Programming



Question 1.

Using Groupby function write a program that can calculate the average age for each single country.

Question 2.

Some countries in the attack csv file have multiple different areas, e.g.,

AUSTRALIA New South Wales

AUSTRALIA Victoria

....

Write a function that can count the number of different areas for each country and print the name of the country along with the number of different areas mentioned in the file.

Question 3.

There are some cells in the attack file with no value (empty, NaN). Repeat the previous question and this time, for each country, only count the number of different areas where the area has an actual value (no empty cell should be considered).

Question 5.

Write a program that will show the number of fatal attacks for each country using groupby.

Question 6.

Write a program that calculates the average age for each year. Note that some cells contain noises, for instance, some cells are empty or some contain an extra space or some contain non-numerical value. You first need to clean the required columns and then calculate the average and sort them based on the average age. The following lines show you how to clean a column:

```
df['Age'] = df['Age'].apply(pd.to_numeric, errors='coerce')
df = df.dropna(subset=['Age'])
```

Removing cells with non-numerical values:

- 1) Making the cells with non-numerical value empty.
- 2) Dropping the rows with empty cells in a given column from the dataframe.

```
df['colA '] = df['colA'].str.replace(" ","")
```

Removing spaces
from all the cells in
the given column.



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