**Bungee Tech Coding Round**

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**Question 1:**

import sys

import numpy as np

import matplotlib.pyplot as plt

import pandas as pd

import io

url = 'https://raw.githubusercontent.com/Bungeetech/internship-test2/master/input/question-1/main.csv'

df = pd.read\_csv(io.StringIO(url), sep="[;,]", engine='python')

print(df)

dates = pd.date\_range('1/1/2001', periods=500, freq="M")

df = pd.DataFrame({"A": 5\*np.arange(len(dates))+2}, index=dates)

df.head()

df.groupby(df.index.year).sum().head()

df.groupby((df.index.year//10)\*10).sum()

**Output:**

**Colab Link:** <https://colab.research.google.com/drive/1kkkaCqO43jefjMnV1gp_EtXXWoMmBw6J?usp=sharing>

Empty DataFrame

Columns: [<https://raw.githubusercontent.com/Bungeetech/internship-test2/master/input/question-1/main.csv>]

Index: []

|  | **A** |
| --- | --- |
| **2000** | 29106 |
| **2010** | 100740 |
| **2020** | 172740 |
| **2030** | 244740 |
| **2040** | 77424 |
|  |  |

**Question 2:**

import pandas as pd

df = pd.read\_csv("https://raw.githubusercontent.com/Bungeetech/internship-test2/master/input/question-2/main.csv")

output = df.groupby('occupation').agg({'age': ['min', 'max']})

print(output)

**Output:**

**Colab Link:**

<https://colab.research.google.com/drive/1un4vyw5jbUX1RffdnhpKRQ4km_mOkJjn?usp=sharing>

age

min max

occupation

administrator 21 70

artist 19 48

doctor 28 64

educator 23 63

engineer 22 70

entertainment 15 50

executive 22 69

healthcare 22 62

homemaker 20 50

lawyer 21 53

librarian 23 69

marketing 24 55

none 11 55

other 13 64

programmer 20 63

retired 51 73

salesman 18 66

scientist 23 55

student 7 42

technician 21 55

writer 18 60

**Question 3:**

import pandas as pd

df = pd.read\_csv("https://raw.githubusercontent.com/Bungeetech/internship-test2/master/input/question-3/main.csv")

output = df[['Team', 'Yellow Cards', 'Red Cards']]

output.sort\_values(by=['Red Cards','Yellow Cards'],ascending=False)

**OUTPUT:**

<https://colab.research.google.com/drive/15TzsClln_hMh_wXzruQU_EcjPGiwv3_W?usp=sharing>

Team Yellow Cards Red Cards

6 Greece 9 1

9 Poland 7 1

11 Republic of Ireland 6 1

7 Italy 16 0

10 Portugal 12 0

13 Spain 11 0

0 Croatia 9 0

1 Czech Republic 7 0

14 Sweden 7 0

4 France 6 0

12 Russia 6 0

3 England 5 0

8 Netherlands 5 0

15 Ukraine 5 0

2 Denmark 4 0

5 Germany 4 0