I used chatpgt for help with creating a map in 4A. I had already done all the steps but I ended up with just a blank grid. I tried multiple things, made multiple changes, but it did not work. I asked chatgpt what might be the issue and it gave me a fix. I got to know that my merged data it was missing coordinates. I cleaned the placenames columns, and got a working map.

Here is the whole conversation with Chatgpt

I am trying to create a map using plotly express as px. I have done all the things that i know. It is generating a map, but the map only has grids with nothing in it. it is giving me the shared image.

ChatGPT said:

Thanks for sharing the image — it confirms that your map is rendering as an **empty plot** with just gridlines, which typically means:



### 1. Missing or NaN coordinates (Latitude / Longitude)

If your merged DataFrame (merged\_df) has null or zero values for coordinates, no markers will show.

## Fix: Check coordinates with this:

```
python
CopyEdit
print(merged_df[['placename', 'latitude', 'longitude']].head(10))
print(merged_df[['latitude', 'longitude']].isna().sum())
print((merged_df['latitude'] == 0).sum(), (merged_df['longitude'] == 0).sum())
```

### 2. Latitude and longitude columns are strings

They **must be numeric**. If read as strings, Plotly can't interpret them.

## Fix: Convert them to floats:

```
python
CopyEdit
merged_df['latitude'] = pd.to_numeric(merged_df['latitude'],
errors='coerce')
merged_df['longitude'] = pd.to_numeric(merged_df['longitude'],
errors='coerce')
```

Then re-run the map code.

### 3. Month format issue in animation\_frame="month"

Even if the column name is month, values may be invalid (e.g., strings like "January" instead of sortable values like "2024-01").

## Fix: Check unique values:

```
python
CopyEdit
print(merged_df['month'].unique())
```

You may need to sort or standardize the month column to work well with animation\_frame.

# **✓** Next Steps

Please run the above checks and share the outputs, or simply paste the first 5 rows of your merged\_df using:

```
python
CopyEdit
print(merged df.head())
```

This will help confirm if coordinates and animation frame values are valid. Would you like help cleaning or converting the values if needed?

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#### You said:

#### 1\. \*\*Missing or NaN coordinates (`latitude` / `longitude`)\*\* If your merged DataFrame (`merged\_df`) has null or zero values for coordinates, no markers will show. #### Fix: Check coordinates with this: python CopyEdit `print(merged\_df[['placename', 'latitude', 'longitude']].head(10)) print(merged\_df[['latitude', 'longitude']].isna().sum()) print((merged\_df['latitude'] == 0).sum(), (merged\_df['longitude'] == 0).sum())`

Python 3.13.2 (tags/v3.13.2:4f8bb39, Feb 4 2025, 15:23:48) [MSC v.1942 64 bit (AMD64)] on win32 Type "help", "copyright", "credits" or "license()" for more information. = RESTART: C:/Users/Haroon Traders/Downloads/FASDH25-portfolio2/Scripts/regex\_map.py Index(['placename', 'month', 'frequency', 'latitude', 'longitude', 'geonameid', 'name', 'alternatenames'], dtype='object') Empty DataFrame Columns: [placename, latitude, longitude] Index: [] latitude 0 longitude 0 dtype: int64 0 0

ChatGPT said:

Thanks for running the check — here's the problem:

### Your merged DataFrame is completely empty.

This means the merge between freq\_df and coordinates\_df failed — **no matching placename values** exist between the two files after renaming.

# What's likely wrong?

There are **mismatches between placename values** in your two files. These could be caused by:

- Differences in capitalization
- Extra spaces
- Different spellings

• One file using Asciiname, the other using asciiname, but you renamed asciiname in both, which may be a mistake.

# Fix in 3 steps:

### 1. Revert one renaming line — likely this one is wrong:

```
python
CopyEdit
freq_df.rename(columns={"asciiname": "placename"}, inplace=True) # X
likely incorrect

It should probably be:

python
CopyEdit
freq_df.rename(columns={"Asciiname": "placename"}, inplace=True)

2. Clean the placename columns in both DataFrames:

python
CopyEdit
freq_df['placename'] = freq_df['placename'].str.strip().str.lower()
coordinates_df['placename'] = coordinates_df['placename'].str.strip().str.lower()
```

### 3. Try merging again and print the first few rows:

```
python
CopyEdit
merged_df = pd.merge(freq_df, coordinates_df, on="placename",
how="inner")
print(merged_df.head())
```

If this doesn't fix it, I can help you inspect the actual values. Would you like to print a sample of  $freq_df['placename']$  and  $coordinates_df['placename']$  to compare them?