TASK2 :Create a Choropleth to display the number of EV vehicles based on location

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


df=pd.read_csv(r"C:\Users\Suri\Downloads\dataset.csv")
```

In [2]:
```
df2=pd.DataFrame(df["County"].value_counts())

df2=df2.reset_index()
df2=df2.rename(columns={"index":"County","County":"no_of_vechiles"})
```

In [3]:
```
df2
```

Out[3]:

	County	no_of_vechiles
0	King	59000
1	Snohomish	12434
2	Pierce	8535
3	Clark	6689
4	Thurston	4126
...	...	...
160	Pinal	1
161	Elmore	1
162	Portsmouth	1
163	Kings	1
164	Kootenai	1

165 rows × 2 columns


```
import json
fileName=r"C:\Users\Suri\Downloads\\us-states.json"
with urlopen("https://raw.githubusercontent.com/plotly/datasets/master/geojson-counties-fips.json") as response:
    counties = json.load(response)

counties["features"][0]
```

Out[4]:

```
{'type': 'Feature',
 'properties': {'GEO_ID': '0500000US01001',
  'STATE': '01',
  'COUNTY': '001',
  'NAME': 'Autauga',
  'LSAD': 'County',
  'CENSUSAREA': 594.436},
 'geometry': {'type': 'Polygon',
  'coordinates': [[[-86.496774, 32.344437],
    [-86.717897, 32.402814],
    [-86.814912, 32.340803],
    [-86.890581, 32.502974],
    [-86.917595, 32.664169],
    [-86.71339, 32.661732],
    [-86.714219, 32.705694],
    [-86.413116, 32.707386],
    [-86.411172, 32.409937],
    [-86.496774, 32.344437]]]},
 'id': '01001'}
```


In [5]:
```
df2=pd.DataFrame(df["County"].value_counts())

df2=df2.reset_index()
df2=df2.rename(columns={"index":"County","County":"no_of_vechiles"})
```

In [6]:
```
state_id={}
for feature in counties["features"]:
    state_id[feature["properties"]['NAME']]=feature['id']



df2["id"]=df2["County"].apply(lambda x:state_id[x])
```

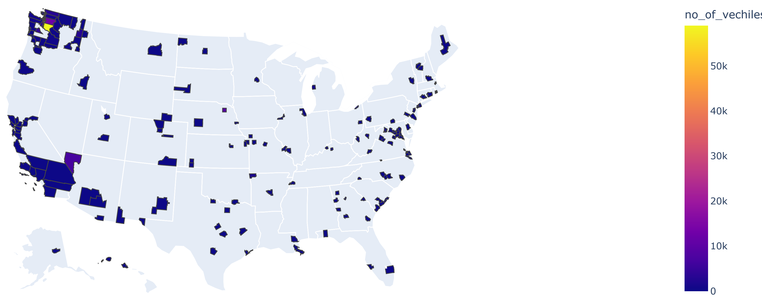
In [7]:
```
df2.sort_values(by="id",inplace=True)
df2
```

Out[7]:

	County	no_of_vechiles	id
157	Fairbanks North Star	1	02090
48	Maricopa	5	04013
160	Pinal	1	04021
91	Santa Cruz	1	04023
8	Benton	1376	05007
...	...	...	...
15	Yakima	617	53077
139	Jackson	1	54035
18	Lewis	431	54041
120	Monroe	1	54063
95	Laramie	1	56021

165 rows × 3 columns

In [8]:
```
#TASK2 Create a Choropleth to display the number of EV vehicles based on location.
import plotly.express as px
fig=px.choropleth(df2,locations="id",geojson=counties,color="no_of_vechiles",hover_name="County",scope="usa")
fig.show()
```

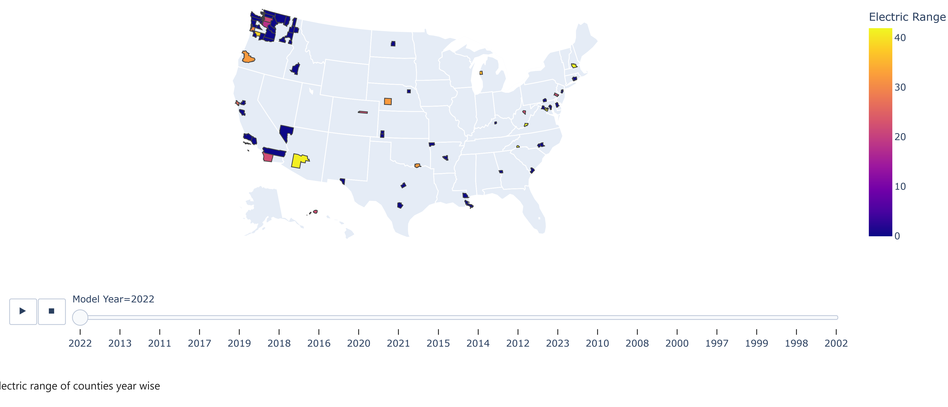


In [9]:
```
state_id={}
for feature in counties["features"]:
    state_id[feature["properties"]['NAME']]=feature['id']



df["id"]=df["County"].apply(lambda x:state_id[x])
```

In [10]:
```
fig=px.choropleth(df,locations="id",geojson=counties,color="Electric Range",hover_name="County",scope="usa",animation_frame="Model Year")
fig.show()
```



Observation:Electric range of counties year wise

In [ ]:
```

```

In [ ]:
```

```