```python
In [2]:  import pandas as pd
         import numpy as np
         import matplotlib.pyplot as plt
         import seaborn as sns
```

```python
In [4]:  path='Visadataset.csv'
         visa_df=pd.read_csv(path)
         cat=visa_df.select_dtypes(include='object').columns
         num=visa_df.select_dtypes(exclude='object').columns
```

frequeny table

```python
In [ ]:  keys=visa_df['continent'].value_counts().keys()
         values=visa_df['continent'].value_counts().values
         df=pd.DataFrame(zip(keys,value),
                         columns=['Label','No of applicants'])
         df.to_csv('continent.csv',index=False)
```

idea

- I want to create all frequency tables

- and save in a new folder

- The folder is available in python current file location

- All steps automate

step-1: create a folder using python code

```python
In [13]:  import os
          try:
              os.makedirs('frequeny_table')
          except Exception as e:
              print(e)
```

[WinError 183] Cannot create a file when that file already exists: 'frequeny_tabl
e'

```python
In [19]:  os.makedirs('frequeny_table1',exist_ok=True)
```

```python
In [23]:  keys=visa_df['continent'].value_counts().keys()
          values=visa_df['continent'].value_counts().values
          df=pd.DataFrame(zip(keys,values),
                          columns=['Label','No of applicants'])
          # Absolute path
          path=r'C:\Users\omkar\OneDrive\Documents\Data science\Naresh IT\Naresh IT\Data s
          df.to_csv(path,index=False)
```

```python
In [25]:  # Realtive path
          path=r'.\frequeny_table\continent1.csv'
          df.to_csv(path,index=False)
```

```python
In [31]:  cwd=os.getcwd() # EDA
          folder_name='frequeny_table'
```

```python
new_dir=os.path.join(cwd,folder_name)
filename='continent2.csv'
path=os.path.join(new_dir,filename)
df.to_csv(path,index=False)
```

In [37]:
```python
cat   # dont consider case_id
cat[1:]
```

Out[37]:
```
Index(['continent', 'education_of_employee', 'has_job_experience',
       'requires_job_training', 'region_of_employment', 'unit_of_wage',
       'full_time_position', 'case_status'],
      dtype='object')
```

In [35]:
```python
visa_df['case_id'].nunique()
```

Out[35]: 25480

In [ ]:
```python
# step-1:
keys=visa_df['continent'].value_counts().keys()
values=visa_df['continent'].value_counts().values
df=pd.DataFrame(zip(keys,value),
               columns=['Label','No of applicants'])
# step-2
folder_name='frequeny_table'
os.makedirs(folder_name,exist_ok=True)

# step-3:
cwd=os.getcwd()
new_dir=os.path.join(cwd,folder_name)
file_name='continent.csv'
path=os.path.join(new_dir,file_name)

# step-4:
df.to_csv(path,index=False)
```

In [41]:
```python
# step-1:
for i in cat[1:]:
    keys=visa_df[i].value_counts().keys()
    values=visa_df[i].value_counts().values
    df=pd.DataFrame(zip(keys,values),
                   columns=['Label','No of applicants'])
    # step-2
    folder_name='frequeny_table'
    os.makedirs(folder_name,exist_ok=True)

    # step-3:
    cwd=os.getcwd()
    new_dir=os.path.join(cwd,folder_name)
    file_name=f'{i}.csv'
    path=os.path.join(new_dir,file_name)

    # step-4:
    df.to_csv(path,index=False)
```
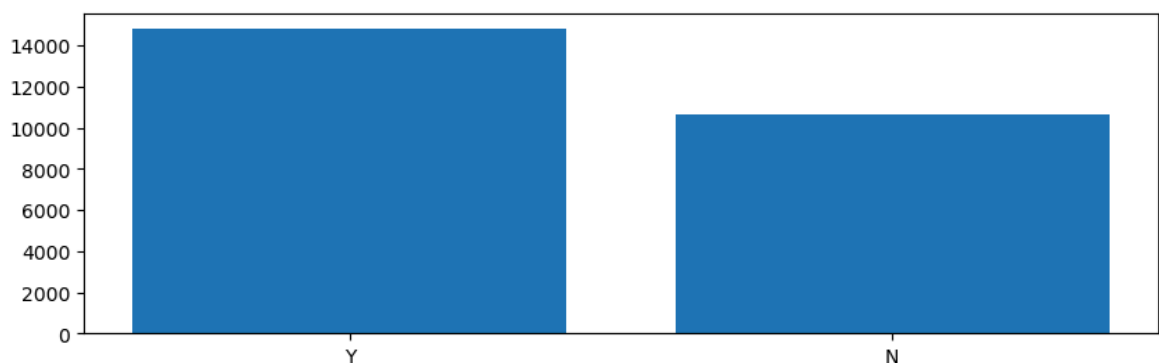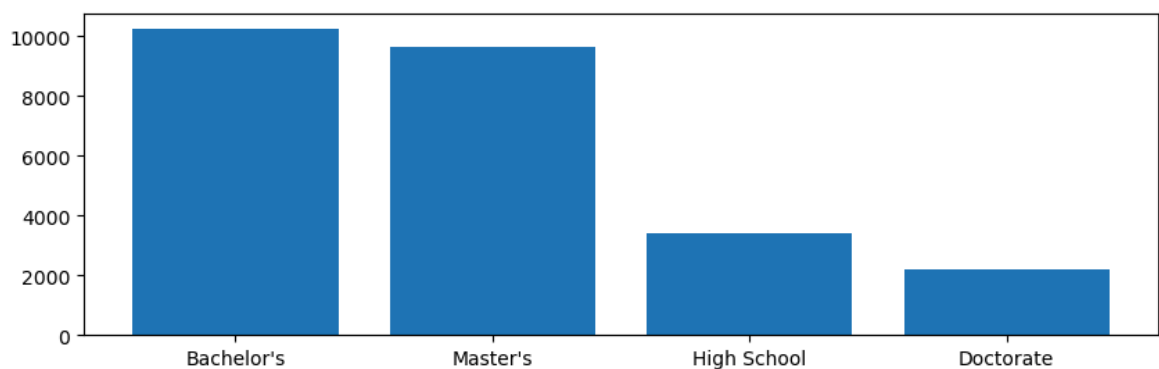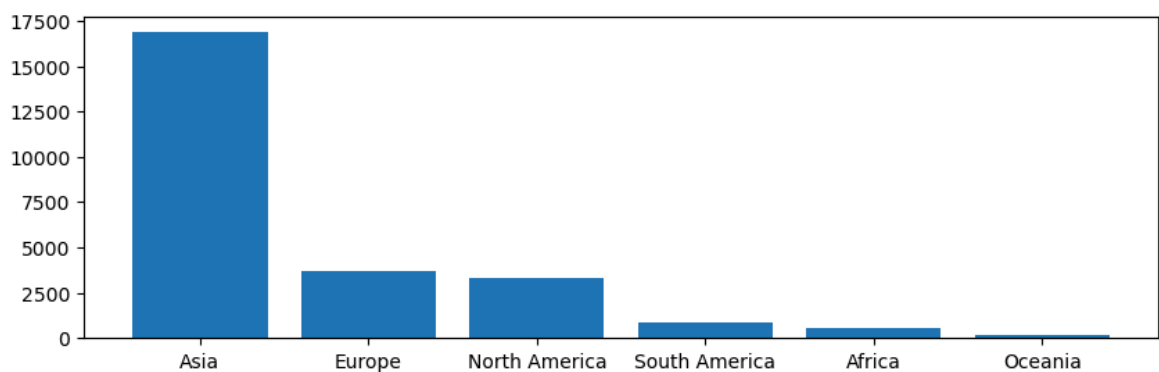
bar chart automate

In [ ]:
```python
keys=visa_df['continent'].value_counts().keys()
values=visa_df['continent'].value_counts().values
```
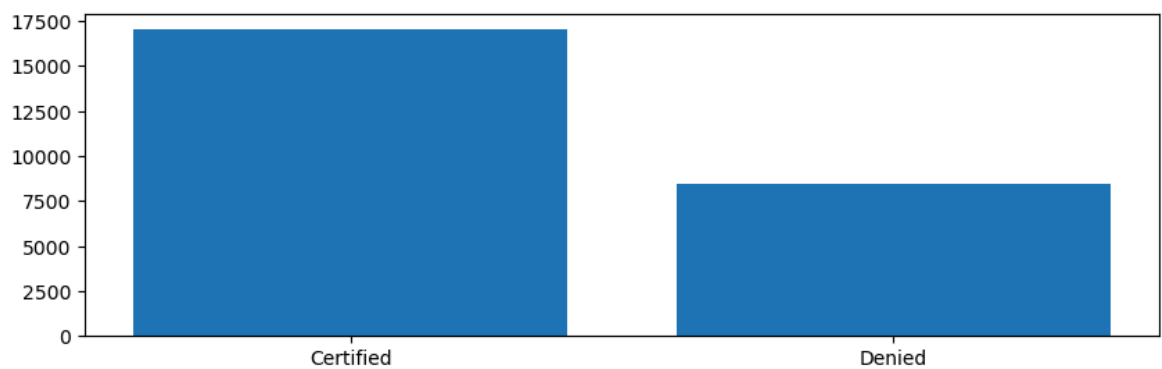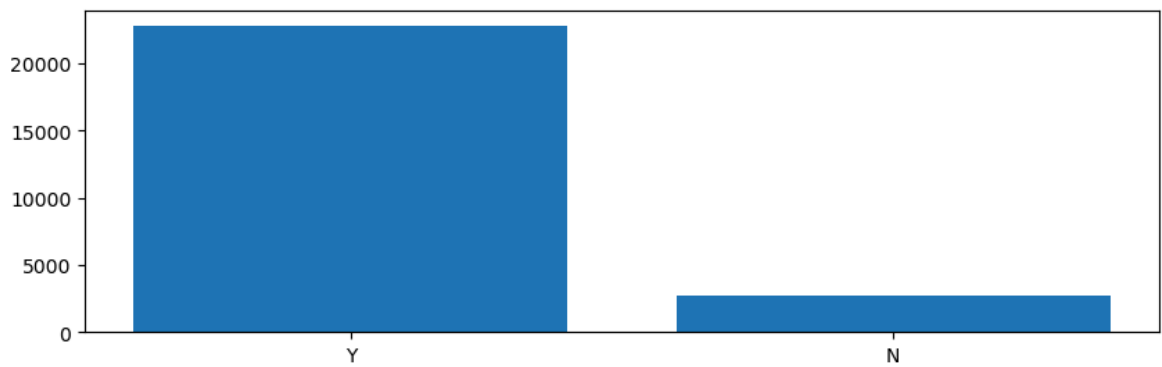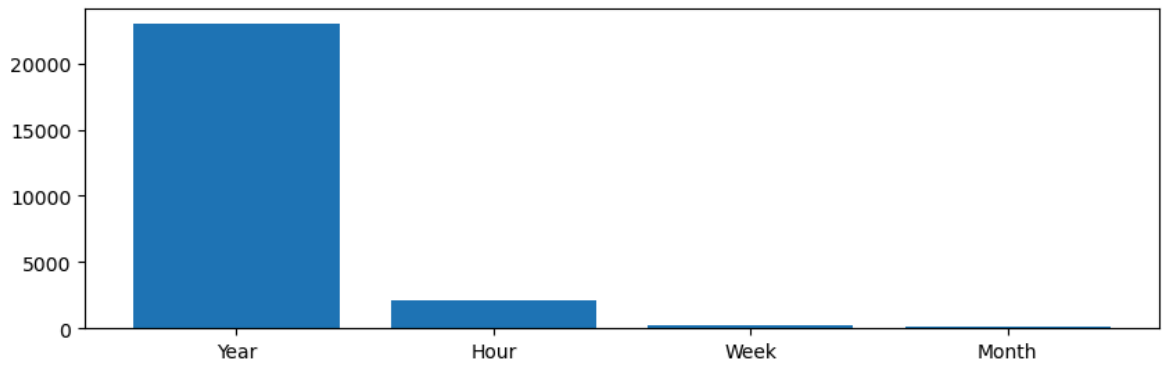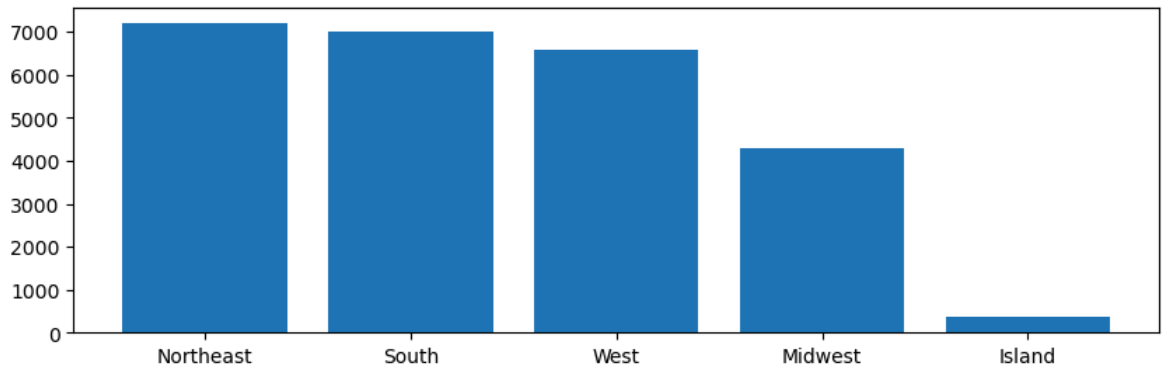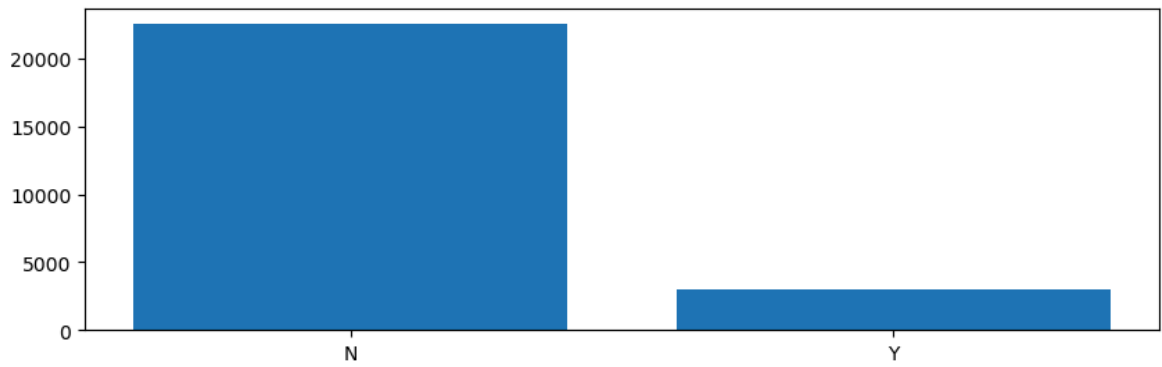
```
plt.figure(figsize=(10,4))
plt.bar(keys,value)
plt.xlabel('labels')
plt.ylabel('count')
plt.title('continet_barchart')
plt.savefig('contienent_bar.jpg')
```

In [46]:
```
# step-1:
for i in cat[1:]:   # misrake cat:
    keys=visa_df[i].value_counts().keys()
    values=visa_df[i].value_counts().values
    plt.figure(figsize=(10,3))
    plt.bar(keys,values)
    # step-2
    folder_name='Bar_charts'
    os.makedirs(folder_name,exist_ok=True)

    # step-3:
    cwd=os.getcwd()
    new_dir=os.path.join(cwd,folder_name)
    file_name=f'{i}.jpg'
    path=os.path.join(new_dir,file_name)

    # step-4:
    plt.savefig(path)
```

```
In [ ]: # step-1:
        for i in cat[1:]:  # misrake cat:
```

```python
keys=visa_df[i].value_counts().keys()
values=visa_df[i].value_counts().values
plt.pie(values,
        explode=[0.1 for i in range(len(keys))]
        labels=keys)
# step-2
folder_name='pie_charts'
os.makedirs(folder_name,exist_ok=True)

# step-3:
cwd=os.getcwd()
new_dir=os.path.join(cwd,folder_name)
file_name=f'{i}.jpg'
path=os.path.join(new_dir,file_name)

# step-4:
plt.savefig(path)
```