

Image quantization using Machine Learning program

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#import files
import numpy as np
import matplotlib.pyplot as plt
import matplotlib.colors as mcolors
import math
import random
import time
import operator
import pandas as pd
import datetime

#importing datasets
dataset=pd.read_csv("/home/kiran/DMLJY/covide-19.csv")
conformed=dataset.iloc[:,4].values
recoverd=dataset.iloc[:,5:6].values
death=dataset.iloc[:,6:7].values
confirmd_sum=sum(conformed)
recoverd_sum=sum(recoverd)
death_sum=sum(death)
unique_state=list(dataset['State/UnionTerritory'].unique())
unique_state.sort()
groupby_state=dataset.groupby(['State/UnionTerritory']).sum()
state_confirmd_case=groupby_state.iloc[:,1].values
state_confirmd_case=state_confirmd_case.tolist()

#visulatization
plt.figure(figsize=(32,32))
plt.barh(unique_state,state_confirmd_case)
plt.title('state_confirmed_case covid19')
plt.xlabel('number of confirmed cases')
plt.show()

c=random.choices(list(mcolors.CSS4_COLORS.values()),k =
len(unique_state))
plt.figure(figsize=(20,20))
plt.title('confirmed cases in india (in state)',fontsize=70)
plt.pie(state_confirmd_case,colors=c)
plt.legend( unique_state,loc='best')
plt.show()

c=random.choices(list(mcolors.CSS4_COLORS.values()),k =
len(unique_state))
plt.figure(figsize=(20,20))
plt.title('confirmed cases in india (in state)',fontsize=70)
plt.pie(visual_state_confirmed_case,colors=c)
plt.legend( visual_state,loc='best')
plt.show()
```

```
#DEATH
plt.figure(figsize=(32,32))
plt.barh(unique_state,state_death)
plt.title('covid 19 death in state',fontsize=70)
plt.xlabel('number of death cases',fontsize=70)
plt.show()
```

```
visual_state1=[]
visual_state_death=[]
visualize_death=sorted(list(zip(unique_state,state_death)),key=lambda x:x[1])
visualize_death=visualize_death[::-1]
for i in range(0, 7):
visual_state1.append(visualize_death[i][0])
visual_state_death.append(visualize_death[i][1])
plt.figure(figsize=(32,32))
plt.barh(visual_state1,visual_state_death)
plt.title('state_death covid19 top state',fontsize=70)
plt.xlabel('number of death cases',fontsize=70 )
plt.show()
```

```
c=random.choices(list(mcolors.CSS4_COLORS.values()),k =
len(unique_state))
plt.figure(figsize=(20,20))
plt.title('death in india (in state)',fontsize=70)
plt.pie(state_death,colors=c)
plt.legend( unique_state,loc='best')
plt.show()
```

```
c=random.choices(list(mcolors.CSS4_COLORS.values()),k =
len(visual_state1))
plt.figure(figsize=(20,20))
plt.title('death in india (top state)',fontsize=70)
plt.pie(visual_state_death,colors=c)
plt.legend( visual_state,loc='best')
plt.show()
```