Dependence&Lib

numpy
scipy
matplotlib
sklearn
pandas

Running method

python h1bSystem.py (ensure h1b_history.csv in the same level folder)

Menu description

1. showCASE_STATUS

- def showCASE_STATUS(self,H1Info)

  > Analyze the H1Bs by the status of their visa applications and show the plot

2. showWORKSITE

- def K_meanAnalyze(self,H1Info)

  > ```
  > K-Means Clustering to seperate the h1b location
  > ```

- def showWORKSITE(self,dense,H1LatLong)

  > show the plot of the h1b WORKSITE after k-mean
  > dense is the parameter to control distance between point, when gainning the info from the H1LatLong

3. showSALARY_table

- def showSALARY_table(self,salaryMin,salaryMax,salaryMean,salaryMedian,salaryStd)

  > show the salary detail after k-mean process

4. showSALARY_plot

- def showSALARY_plot(self,salaryMedian,salaryMean)

  > Plotting and comparison to the median US salary (2015)

5. showTOP10com_table

- def showTOP6com_table(self,H1Info)

  > show top 6 company who has apply to the h1b for employee

6. showYearTrend_plot

- def showYearTrend_plot(self,H1Info)

  > show the h1b number in everyear's change

7. showJOBTITLE_plot

- def showJOBTITLE_plot(self,H1Info)

  > show top20 popular Jobtitle and top10 Worksites for H1-B Visa holders

8. showAVGSalary_plot

- def showAVGSalary_plot(self,H1Info)

  > show top20 salary mean Jobtitle

9.showFullvsPart_plot

- def showFullvsPart_plot(self,H1Info)

  > show the difference between fulltime job and part time job.

10.predic_showCASE_STATUS

- def predictCASE_STATUS(self,H1Info,job_TitleName,WORKSITE,EMPLOYER_NAME,PREVAILING_WAGE,dense)

  > CASE_STATUS situation predict. using decision Tree algorithm from sklearn

11.DecisionTreeAcuracy\n12.top10Accuracy

- def testDECISION_ACURACY(self,H1Info,job_TitleName,dense=10)

  > test one specify job's accuracy in 2016 base on 2011-2015 data

12.top10Accuracy

- def testDECISION_ACURACY(self,H1Info,job_TitleName,dense=10)
- def testTOP10JOB_acuracy(self,H1Info)

  > get top10 popular job's accuracy in 2016 base on 2011-2015