# **Edgar Documentation**

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## **MODULE: FORM10DB**

edgar.form10DB includes functions to download 10 forms from dataset.

It includes ticker to cik transformation, quarter master file download, and 10 form download functions.

#### class form10DB.CIKTranslator

CIKTranslator manages the mapping between cik and ticker

Users can get the dictionary from two members: CIKtranslator.tickerGetter: dictionary with cik:ticker

CIKtranslator.cikGetter: dictionary with ticker:cik

#### updateCIKtable (tickers)

generate a txt file that map ticker to cik

**Args:** sequence of symbol(str): symbols to add to the dictionary

**Return:** emptycik(list): list of ticker without cik

Output: DATA\_ADD + '/Edgar/cik2ticker.txt

#### class form10DB.Form10Manager

MasterFileManager download and maintains quarterly master file of EDGAR database

#### buildIndex()

build index file for each ticker directory

#### listQuraterMasterFile()

List all available quarterly master file

#### updateAndDownload (year, qtr, range='all')

update master file and download new forms

#### updateForms (year, qtr, range='all')

download all 10 forms listed in the master file to corresponding ticker directory

Args: year,qtr(int): year and quarter of master file range(str): specify date range to download

'all': download all forms in the master file 'today': download forms with date == today

return:

#### updateQuarterMasterFile (beginyear, beginqtr, endyear, endqtr)

Download quarterly master file from edgar database Args:

beginyear, ..., endqtr (int): specify required date range

#### **CHAPTER**

## **TWO**

# **MODULE: FORECASTER**

#### class forecaster.DictionaryGenerator

Generate a dictionary from the files indicated in the keyfile

GenerateDictionary (keyfile, outdictname)

Args: keyfile(str): path to look for the keyfile outdictname: name of the output dictionary

#### class forecaster.Forecaster

Forecaster is wrapper class for different classifiers

#### Forecaster can:

- 1. train and test on historical edgar data
- 2. make predictions on new incoming data

Constructor Args: indexFilePath(str): path to the index file of all training data

#### GenerateTrainTestDateSet (traincut, devcut)

cut training set and testing set based on cut date(cut date include in training set)

#### setClassifier (classifier )

set the classifier of the forecaster.

The classifier should have a fit(X,y), score(X,y) and predict(X) functions

Args: classifier: instance of a classifier

#### $\verb|forecaster.doMostCommonClassify| (\textit{keyfile}, \textit{outfile} name)|$

guess all label to be 1, 2,3 Most Common Baseline

 $\texttt{forecaster.doWordListClassify} \ (\textit{keyfile}, \textit{outfilename}, \textit{sue\_weight=0.0}, \textit{k=0})$ 

count pos/neg words to make classification

**MODULE: UTILS** 

edgar.form10DB includes functions to download 10 forms from dataset.

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CIKTranslator manages the mapping between cik and ticker

Users can get the dictionary from two members: CIKtranslator.tickerGetter: dictionary with cik:ticker

CIKtranslator.cikGetter: dictionary with ticker:cik

#### updateCIKtable (tickers)

generate a txt file that map ticker to cik

**Args:** sequence of symbol(str): symbols to add to the dictionary

**Return:** emptycik(list): list of ticker without cik

Output: DATA\_ADD + '/Edgar/cik2ticker.txt

#### class form10DB.Form10Manager

MasterFileManager download and maintains quarterly master file of EDGAR database

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List all available quarterly master file

#### updateAndDownload (year, qtr, range='all')

update master file and download new forms

#### updateForms (year, qtr, range='all')

download all 10 forms listed in the master file to corresponding ticker directory

Args: year,qtr(int): year and quarter of master file range(str): specify date range to download

'all': download all forms in the master file 'today': download forms with date == today

return:

#### updateQuarterMasterFile (beginyear, beginqtr, endyear, endqtr)

Download quarterly master file from edgar database Args:

beginyear, ..., endqtr (int): specify required date range

# **MODULE: DATAGENERATOR**

#### DataGenerator.DatabaseIndex (sector)

generate a key file indexing all data points for a sector file format:

date symbol label path

**TODO:** reset path

#### DataGenerator. GenerateDataset (sector, data, begin, end)

Generate data set Args:

sector(str): currenyly only 'Industrials' available data: data returned by loadData begin: begin index of the symbol list end: end index of the symbol list

#### DataGenerator.checkEmpty(symbolList)

return ticker list with empty index file

**Args:** symbolList: list of symbols

#### **Return:**

**result:{'NoSymbol': symbols not in the cik-ticker dict** 'NoIndex': symbol in the cik-ticker dict, but does not have index file}

#### DataGenerator.cleanPrice(price)

check same ticker used by two companies

#### DataGenerator.loadData(sector)

read the pricce, portfolio and sue data into memory

#### DataGenerator.updateCoreIndex()

Core index file stores 10QK filing information of all ticker Update core index file based on the indexfile of each stock

# **CHAPTER**

# **FIVE**

# **INDICES AND TABLES**

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- modindex
- search

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