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1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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Chapter 2

Class Documentation

2.1 AddExceptions Class Reference

Public Member Functions

- bool **readIn** (istream &eStr)
- bool **stringB** (stringstream &line)
- bool **stem** (vector< string > &words)
- bool **stem** (string &word)
- bool **checkAndReplace** (string &word)

The documentation for this class was generated from the following files:

- AddExceptions.h
- AddExceptions.cpp

2.2 DocManager Class Reference

Public Member Functions

- **DocManager** (std::vector< **Document** > D)
- bool **CompAndPrint** ()
- bool **PrintOne** (int index)

The documentation for this class was generated from the following files:

- DocManager.h
- DocManager.cpp

2.3 Document Class Reference

Public Member Functions

- **Document** (vector< **Word** > words)
Document (p. ??) constructor.
- bool **contains** (const **Word** &w) const
- bool **add** (**Word** w)
- bool **setTFIDFs** (vector< **Document** > &Docs)
- bool **setTFIDF** (vector< **Document** > &Docs, **Word** &w)
- double **getIDF** (vector< **Document** > &Docs, **Word** &w)
- double **Sim** (**Document** &Other)
- **Word** & **at** (int index)
- **Word** & **find** (**Word** &w)
- int **findIndex** (**Word** &w, int min, int max)
- int **getNumSents** ()
- int **getNumAlphaWords** ()
- int **getNumAlphaWordsChars** ()
- double **getS** ()
- double **getL** ()
- bool **getFail** ()
- double **getReadingLevel** ()

2.3.1 Constructor & Destructor Documentation

2.3.1.1 Document()

```
Document::Document (
    vector< Word > words )
```

Document (p. ??) constructor.

Takes in a vector of words, and sorts in using the standard sort algorithm Some operators in the word class are overloaded to support standard functions being able to work on the words.

```
*std::sort(wds.begin(), wds.end());
```

=1mm

spread Opt [I]|X[-1,I]|X[-1,I]]Parameters

Parameters

words Vector of words that will be sorted

Returns

its a constructor

Warning

words vector should have no words with duplicate strings

2.3.2 Member Function Documentation

2.3.2.1 getNumSents()

```
int Document::getNumSents ( )
```

@ brief getNumSents

uses the definition of sentence ending punctuation from stringtest to decide if something ends a sentence and counts how many strings have that property

Returns

number of sentences in the file.

Warning

sentence can be empty

The documentation for this class was generated from the following files:

- Document.h
- Document.cpp

2.4 Except Class Reference

Public Member Functions

- bool **capsTest** (vector< string > &words)
- bool **isPlus** (const string &testStr)
- bool **capsTest** (const string &testStr)
- bool **makeLower** (string &testStr)
- bool **capsFind** (const vector< string > &words, string &testStr)

The documentation for this class was generated from the following files:

- Except.h
- Except.cpp

2.5 FileCount Class Reference

Public Member Functions

- bool **ReadIn** (istream &textStrm, istream &exceptStrm)
- **Document Write** () const
- bool **breakStemSort** (vector< string > &strs, istream &exceptStrm)

The documentation for this class was generated from the following files:

- FileCount.h
- FileCount.cpp

2.6 GrammarMachine Class Reference

Public Member Functions

- bool **needsGrammarification** (const string &testStr)
- bool **isVowel** (const string &testStr, unsigned int index)
- bool **isDouble** (const string &testStr)
- bool **isLlending** (char test)
- bool **isEmpty** (const string &testStr)
- bool **isRegion1Empty** (const string &testStr)
- bool **isRegion2Empty** (const string &testStr)
- string **getRegion1** (const string &testStr)
- string **getRegion2** (const string &testStr)
- bool **hasSuffix** (const string &testStr, const string &suffix)
- string **getPreceder** (const string &testStr, const string &suffix)
- string **replaceSuffix** (const string &testStr, const string &suffix, const string &replacement)
- int **getRegionOfSuffix** (const string &testStr, const string &suffix)
- bool **endsInSS** (const string &testStr)
- bool **isShort** (const string &testStr)
- bool **containsVowel** (const string &testStr)
- string **testAndReplace** (const string &testStr, vector< string > suffixes, vector< string > replacements)
- string **testAndReplace** (const string &testStr, vector< string > suffixes, vector< string > replacements, int region)
- string **testAndReplace** (const string &testStr, vector< string > suffixes, int region)
- string **step1** (const string &testStr)
- string **step2** (const string &testStr)
- string **step3** (const string &testStr)
- string **step4** (const string &testStr)
- string **step5** (const string &testStr)
- string **step6** (const string &testStr)
- string **step7** (const string &testStr)
- string **step8** (const string &testStr)
- bool **doSteps** (vector< string > &words)
- bool **doSteps** (string &word)

The documentation for this class was generated from the following files:

- GrammarMachine.h
- GrammarMachine.cpp

2.7 StringTest Class Reference

Public Member Functions

- bool **isAcronym** (const string testStr)
- bool **isAlphaNumeric** (const string &testStr)
- bool **isStartOfSentence** (const vector< string > words, unsigned int index)
- bool **needsPlusMarking** (const vector< string > words, unsigned int index)
- bool **needsToBeBroken** (const string testStr)
- bool **isPeriodValid** (const string &testStr, unsigned int index)
- bool **isCommaValid** (const string &testStr, unsigned int index)
- bool **BreakUpWord** (string testStr, vector< string > &words)
- bool **BreakUp** (vector< string > &words)
- bool **MarkSentStarts** (vector< string > &words)
- bool **hasPEQ** (const string &testStr)
- bool **isSentEnd** (const string &testStr)
- bool **isValidStart** (const string &testStr)
- bool **isSpecialPunctuation** (char testChar)
- bool **isCharValid** (const string &testStr, unsigned int index)

Static Public Member Functions

- static bool **isAlphaNumeric** (char testChar)
- static bool **isCaps** (char testChar)
- static bool **isLetter** (char testChar)
- static bool **isNumber** (char testChar)
- static bool **isPunctOnly** (const string &testStr)

The documentation for this class was generated from the following files:

- StringTest.h
- StringTest.cpp

2.8 Word Class Reference

Public Member Functions

- **Word** (string w)
- **Word** (string w, int f)
- int **operator<** (const **Word** w) const
- bool **operator==** (const **Word** w) const
- const string & **getWord** () const
- int **getfrequency** () const
- void **setfrequency** (int f)
- void **incrFreq** (int i)
- bool **isPunctuation** () const
- void **setTI** (double n)
- double **getTFIDF** () const
- bool **isSentEnd** ()
- bool **isAlphaNumeric** ()
- int **size** ()

The documentation for this class was generated from the following files:

- Word.h
- Word.cpp

