Package 'SnowballC'

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Type Package

Version 0.7.1

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Title Snowball Stemmers Based on the C 'libstemmer' UTF-8 Library

Description An R interface to the C 'libstemmer' library that implements
Porter's word stemming algorithm for collapsing words to a common
root to aid comparison of vocabulary. Currently supported languages are
Arabic, Basque, Catalan, Danish, Dutch, English, Finnish, French, German, Greek,
Hindi, Hungarian, Indonesian, Irish, Italian, Lithuanian, Nepali,
Norwegian, Portuguese, Romanian, Russian, Spanish, Swedish, Tamil
and Turkish.

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Copyright Dr Martin Porter (2001) and Richard Boulton (2004, 2005) for
the 'libstemmer' C library, and Milan Bouchet-Valat (2013) for
the R package contents.

URL https://github.com/nalimilan/R.TeMiS

BugReports https://github.com/nalimilan/R.TeMiS/issues

NeedsCompilation yes

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getStemLanguages   *Query the list of supported languages*

Description

This dynamically determines the names of the languages for which stemming is currently supported by this package.

Usage

```
getStemLanguages()
```

Details

The language names in lower case are returned, though please note that two- and three- letter ISO-639 codes are also accepted by wordStem (see references for the list of codes).

This queries the C code for the list of languages that were compiled when the package was installed which in turn is determined by the code that was included in the distributed package itself.

Value

A character vector giving the names of the languages.

Author(s)

Milan Bouchet-Valat

References

<http://snowball.tartarus.org/>

<http://www.loc.gov/standards/iso639-2/php/code_list.php> for a list of ISO-639 language codes.

See Also

wordStem

Examples

```
getStemLanguages()
```

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wordStem   *Get the stem of words*

Description

This function extracts the stems of each of the given words in the vector.

Usage

```
wordStem(words, language = "porter")
```

Arguments

words	a character vector of words whose stems are to be extracted.
language	the name of a recognized language, as returned by getStemLanguages, or a two- or three-letter ISO-639 code corresponding to one of these languages (see references for the list of codes).

Details

This uses Dr. Martin Porter's stemming algorithm and the C libstemmer library generated by Snowball.

Value

A character vector with as many elements as there are in the input vector with the corresponding elements being the stem of the word. Elements of the vector are converted to UTF-8 encoding before the stemming is performed, and the returned elements are marked as such when they contain non-ASCII characters.

Author(s)

Milan Bouchet-Valat

References

<http://snowball.tartarus.org/>

<http://www.loc.gov/standards/iso639-2/php/code_list.php> for a list of ISO-639 language codes.

Examples

```
# Simple example
wordStem(c("win", "winning", "winner"))

# Test some of the vocabulary supplied at https://github.com/snowballstem/snowball-data
for(lang in getStemLanguages()) {
    load(system.file("words", paste0(lang, ".RData"), package="SnowballC"))
```

```
    stopifnot(all(wordStem(dat$words, lang) == dat$stem))
}

stopifnot(is.na(wordStem(NA)))
```

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