Package ‘aws.comprehend’

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Description Client for 'AWS Comprehend' <https://aws.amazon.com/comprehend>, a cloud natural language processing service that can perform a number of quantitative text analyses, including language detection, sentiment analysis, and feature extraction.
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R topics documented:

aws.comprehend-package ......................................... 2
bind_and_index .................................................. 2
comprehendHTTP .................................................. 3
detect_entities .................................................. 4
aws.comprehend-package

aws.comprehend

Description
AWS Comprehend Client Package

Details
Client for AWS Comprehend (https://aws.amazon.com/comprehend), a cloud natural language processing service that can perform a number of quantitative text analyses, including language detection, sentiment analysis, and feature extraction.

Author(s)
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See Also
detect_language, detect_sentiment, detect_entities, detect_phrases

bind_and_index

Bind and index a ResultList

Description
Turn a list of data.frames (of different lengths and potentially empty) into a single indexed data.frame. Useful to process a ResultList from 'comprehendHTTP'.

Usage
bind_and_index(index, df_list)

Arguments
index Vector of indices
df_list List of data.frames to bind and index. Should NOT be a data.frame.
Details

‘index’ and ‘df_list’ should be the same length. An error is raised otherwise.
bind_and_index(1:2, list(data.frame(col = "a"), data.frame(col = "b")))
bind_and_index(1:3, list(data.frame(col = "a"), data.frame(), data.frame(c("b", "c"))))

comprehendHTTP

Execute AWS Comprehend API Request

Description

This is the workhorse function to execute calls to the Comprehend API.

Usage

comprehendHTTP(
  action,
  query = list(),
  headers = list(),
  body = NULL,
  verbose = getOption("verbose", FALSE),
  region = Sys.getenv("AWS_DEFAULT_REGION", "us-east-1"),
  key = NULL,
  secret = NULL,
  session_token = NULL,
  service = c("comprehend", "comprehendmedical"),
  ...
)

Arguments

action A character string specifying the API action to take
query An optional named list containing query string parameters and their character values.
headers A list of headers to pass to the HTTP request.
body A request body
verbose A logical indicating whether to be verbose. Default is given by options("verbose").
region A character string containing the AWS region. If missing, defaults to “us-east-1”.
key A character string containing an AWS Access Key ID. See locate_credentials.
secret A character string containing an AWS Secret Access Key. See locate_credentials.
session_token A character string containing an AWS Session Token. See locate_credentials.
service the Comprehend service to use. Currently either ‘comprehend’ for the base service or ‘comprehendmedical’ for the Comprehend Medical service.
... Additional arguments passed to GET.
detect_entities

details
This function constructs and signs an Polly API request and returns the results thereof, or relevant debugging information in the case of error.

Value
If successful, a named list. Otherwise, a data structure of class “aws-error” containing any error message(s) from AWS and information about the request attempt.

Author(s)
Thomas J. Leeper

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detect_entities  Detect named entities in a source text

Description
Detect entities in a source text

Usage
detect_entities(text, language = "en", ...)

Arguments
text A character string containing a text to entities analyze, or a character vector to perform analysis separately for each element.
language A character string containing a two-letter language code. Currently “en” and “es” are supported.
... Additional arguments passed to comprehendHTTP.

Value
A data frame

Examples
## Not run:
# simple example
detect_entities("Amazon provides web services. Jeff is their leader.")

txt <-c("Amazon provides web services, like Google.",
  "Jeff is their leader.")
detect_entities(txt)

## End(Not run)
detect_language

Detect language in a source text

Description
Detect language(s) in a source text

Usage
detect_language(text, ...)

Arguments
text A character string containing a textual source, or a character vector to detect languages separately for each element.
...
Additional arguments passed to comprehendHTTP.

Value
A data frame of language probabilities.

Examples
## Not run:
# simple example
detect_language("This is a test sentence in English")

# two languages in a single text
txt <- "A: ¡Hola! ¿Cómo está, usted?\nB: Ça va bien. Merci. Ét toi?"
detect_language(txt)

# "batch" mode
detect_language(c("A: ¡Hola! ¿Cómo está, usted?",
"B: Ça va bien. Merci. Ét toi?
))

## End(Not run)

detect_medical_entities

Detect named entities in a source medical text

Description
Detect named entities in a source medical text
detect_medical_phi

Detect Protected Health Information (PHI) in a source medical text

Usage

detect_medical_phi(text, language = "en", ...)
detect_phrases

Value
A data frame

Examples
## Not run:
# simple example
medical_detect_phi("Mrs. Smith comes in today complaining of shortness of breath.")

txt <-c("Mrs. Smith comes in today.",
   "She is complaining of shortness of breath.")
medical_detect_phi(txt)

## End(Not run)

detect_phrases | Detect key phrases

Description
Detect key phrases in a source text

Usage
detect_phrases(text, language = "en", ...)

Arguments
text A character string containing a text to analyze, or a character vector to perform analysis separately for each element.
language A character string containing a two-letter language code. Currently “en” and “es” are supported.
... Additional arguments passed to comprehendHTTP.

Value
A data frame

Examples
## Not run:
# simple example
detect_phrases("Amazon provides web services. Jeff is their leader.")

txt <-c("Amazon provides web services.",
   "Jeff is their leader.")
detect_phrases(txt)

## End(Not run)
detect_sentiment  Detect sentiment in a source text

Description
Detect sentiment in a source text

Usage
detect_sentiment(text, language = "en", ...)

Arguments
text  A character string containing a text to sentiment analyze, or a character vector to perform analysis separately for each element.
language  A character string containing a two-letter language code. Currently “en” and “es” are supported.
...  Additional arguments passed to comprehendHTTP.

Value
A data frame

Examples
## Not run:
# simple example
detect_sentiment("I have never been happier. This is the best day ever.")

txt <- c("I have never been happier. This is the best day ever.",
         "I have always been happier. This is the worst day ever.")
detect_sentiment(txt)
## End(Not run)

detect_syntax  Detect syntax in a source text

Description
Detect syntax in a source text

Usage
detect_syntax(text, language = "en", ...)

Examples
## Not run:
# simple example
detect_syntax("I have never been happier. This is the best day ever.")

txt <- c("I have never been happier. This is the best day ever.",
         "I have always been happier. This is the worst day ever.")
detect_syntax(txt)
## End(Not run)
Arguments

- **text**: A character string containing a text to syntax analyze, or a character vector to perform analysis separately for each element.
- **language**: A character string containing a two-letter language code.
- **...**: Additional arguments passed to `comprehendHTTP`.

Value

A data frame

Examples

```r
## Not run:
# simple example
detect_syntax("The quick brown fox jumps over the lazy dog.")

txt <- c("The quick brown fox jumps over the lazy dog.",
          "I have never been happier!")
detect_syntax(txt)

## End(Not run)
```

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**flatten**

Flatten embedded data.frames (1 level max)

Description

Flatten embedded data.frames (1 level max)

Usage

`flatten(df)`

Arguments

- **df**: data.frame to flatten
Index

*Topic package
  aws.comprehend-package, 2

aws.comprehend
  (aws.comprehend-package), 2
aws.comprehend-package, 2

bind_and_index, 2

comprehendHTTP, 3, 4–9

detect_entities, 2, 4
detect_language, 2, 5
detect_medical_entities, 5
detect_medical_phi, 6
detect_phrases, 2, 7
detect_sentiment, 2, 8
detect_syntax, 8

flatten, 9

GET, 3

locate_credentials, 3