

Package ‘ONETr’

June 21, 2014

Type Package

Title Efficient authenticated interaction with the O*NET API.

Version 0.1-1

Date 2014-06-18

Author Eric Knudsen

Maintainer Eric Knudsen <eknudsen@gc.cuny.edu>

Description

This package provides a series of functions designed to enable users to easily search and interact with occupational data from the O*NET API <www.onetonline.org>. The package produces parsed and listed XML data for custom interactions, or pre-packaged functions for easy extraction of specific data (e.g., Knowledge, Skills, Abilities, Work Styles, etc.).

Depends XML, RCurl

License GPL-3

R topics documented:

| | |
|--------------------|----|
| abilities | 2 |
| cacheEnv | 3 |
| education | 3 |
| interests | 4 |
| jobData | 4 |
| jobTitles | 5 |
| jobZone | 6 |
| keySearch | 6 |
| knowledge | 7 |
| occupation | 8 |
| onetr | 8 |
| relatedOccupations | 9 |
| setCreds | 10 |
| skills | 11 |
| socSearch | 11 |
| tasks | 12 |
| technology | 13 |
| tools | 13 |

| | |
|--------------------------|-----------|
| workActivities | 14 |
| workContext | 15 |
| workStyles | 15 |
| workValues | 16 |
| Index | 17 |

abilities

Pull ability data from job extract stored as a list.

Description

This function should be used after a socSearch has been stored. The function extracts ability information for the searched/stored occupation.

Usage

```
abilities(list)
```

Arguments

list the name of the list object that the socSearch data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
## Not run:
# You need to set your credentials with setCreds() prior to use.
abilities(jobData)

## End(Not run)
```

| | |
|----------|--|
| cacheEnv | <i>Environment housing API credentials</i> |
|----------|--|

Description

This environment houses API credentials set with `setCreds`. It is accessed by `keySearch` and `socSearch`.

Usage

```
cacheEnv
```

Format

Environment.

| | |
|-----------|---|
| education | <i>Pull education data from job extract stored as a list.</i> |
|-----------|---|

Description

This function should be used after a `socSearch` has been stored. The function extracts education information for the searched/stored occupation.

Usage

```
education(list)
```

Arguments

`list` the name of the list object that the `socSearch` data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
education(jobData)
```

interests

Pull interest data from job extract stored as a list.

Description

This function should be used after a socSearch has been stored. The function extracts interest information for the searched/stored occupation.

Usage

```
interests(list)
```

Arguments

`list` the name of the list object that the socSearch data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
interests(jobData)
```

jobData

Sample Job Data for Clinical Psychologist

Description

This data set contains job data for 'Clinical Psychologist'. It is the direct output of a socSearch using the O*NET SOC code 19-3031.02, and is parsed into a list for efficient access by all package functions.

Usage

```
jobData
```

Format

A list of length 15.

Source

O*NET Online.

References

O*NET OnLine. *National Center for O*NET Development.*

jobTitles

Pull job title data from job extract stored as a list.

Description

This function should be used after a socSearch has been stored. The function extracts job title information for the searched/stored occupation.

Usage

```
jobTitles(list)
```

Arguments

list the name of the list object that the socSearch data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
jobTitles(jobData)
```

| | |
|---------|--|
| jobZone | <i>Pull "Job Zone" data from job extract stored as a list.</i> |
|---------|--|

Description

This function should be used after a socSearch has been stored. The function extracts "Job Zone" information for the searched/stored occupation.

Usage

```
jobZone(list)
```

Arguments

| | |
|------|--|
| list | the name of the list object that the socSearch data has been stored in |
|------|--|

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
jobZone(jobData)
```

| | |
|-----------|---------------------------------|
| keySearch | <i>Search O*NET by keyword.</i> |
|-----------|---------------------------------|

Description

This function allows you to search O*NET occupations using a keyword, and receive the results in a data frame.

Usage

```
keySearch(keyword)
```

Arguments

| | |
|---------|--|
| keyword | an occupational keyword you'd like to query the API with |
|---------|--|

Value

A data frame containing the search results.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
## Not run:
# You need to set your credentials with setCreds() prior to use.
keySearch("psychologist")

## End(Not run)
```

knowledge

Pull knowledge data from job extract stored as a list.

Description

This function should be used after a socSearch has been stored. The function extracts knowledge information for the searched/stored occupation.

Usage

```
knowledge(list)
```

Arguments

list the name of the list object that the socSearch data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
knowledge(jobData)
```

| | |
|------------|--|
| occupation | <i>Pull occupation data from job extract stored as a list.</i> |
|------------|--|

Description

This function should be used after a socSearch has been stored. The function extracts occupation information for the searched/stored occupation.

Usage

```
occupation(list)
```

Arguments

list the name of the list object that the socSearch data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
occupation(jobData)
```

| | |
|-------|--|
| onetr | <i>Efficient authenticated interaction with the O*NET API.</i> |
|-------|--|

Description

This package provides a series of functions designed to enable users to easily search and interact with occupational data from the O*NET API <www.onetonline.org>. The package produces parsed and listed XML data for custom interactions, or pre-packaged functions for easy extraction of specific data (e.g., Knowledge, Skills, Abilities, Work Styles, etc.).

Details

This package should be used to explore or extract specific occupational data from the O*NET API. The `setCreds` function should be called with the proper arguments prior to the use of any other package functions- the function stores one's API credentials for use by the other functions throughout the session. `keySearch` allows a search by keyword (e.g., "psychologist") and prints the search results, from which occupational SOC codes can be extracted. SOC codes can then be used with `socSearch` to print or store data about a specific occupation. For a list of functions designed for extract of specific data points (e.g., Knowledge, Skills, Abilities, etc.), please read the documentation and explore the package.

Author(s)

Eric Knudsen

Maintainer: Eric Knudsen <eknudsen@gc.cuny.edu>

References

<http://www.onetonline.org/>

Examples

```
## Not run:
  setCreds("username","password") # must have O*NET API developer account
  keySearch("psychologist")
  socSearch("19-3031.02")

## End(Not run)
```

| | |
|--------------------|---|
| relatedOccupations | <i>Pull related occupations data from job extract stored as a list.</i> |
|--------------------|---|

Description

This function should be used after a `socSearch` has been stored. The function extracts related occupations information for the searched/stored occupation.

Usage

```
relatedOccupations(list)
```

Arguments

| | |
|------|---|
| list | the name of the list object that the <code>socSearch</code> data has been stored in |
|------|---|

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
relatedOccupations(jobData)
```

setCreds

*Set O*NET API credentials for functional use.*

Description

This function allows you to store your O*NET API developer credentials for easy authentication when calling package functions. This function must be used before any other function in the package.

Usage

```
setCreds(user, pass)
```

Arguments

| | |
|------|------------------------------|
| user | O*NET API developer username |
| pass | O*NET API developer password |

Value

An list to store the API username and password for access by the package functions.

Author(s)

Eric Knudsen

Examples

```
# store API username and password
setCreds("sampleuser","samplepassword")
```

`skills`*Pull skill data from job extract stored as a list.*

Description

This function should be used after `socSearch` has been stored. The function extracts skill information for the searched/stored occupation.

Usage

```
skills(list)
```

Arguments

`list` the name of the list object that the `socSearch` data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
skills(jobData)
```

`socSearch`*Searches and pulls occupational data based on SOC code.*

Description

This function should be used to extract and store data on a specific job for further analysis/manipulation by package functions.

Usage

```
socSearch(soc)
```

Arguments

`soc` occupation SOC code (if necessary, use `keySearch` to find SOC code)

Value

A list (parsed from XML) of all existing O*NET data on queried occupation.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
## Not run:
# You need to set your credentials with setCreds() prior to use.
socSearch("19-3031.02")

## End(Not run)
```

tasks

Pull task data from job extract stored as a list.

Description

This function should be used after a socSearch has been stored. The function extracts task information for the searched/stored occupation.

Usage

```
tasks(list)
```

Arguments

list the name of the list object that the socSearch data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
tasks(jobData)
```

| | |
|------------|--|
| technology | <i>Pull technology data from job extract stored as a list.</i> |
|------------|--|

Description

This function should be used after a socSearch has been stored. The function extracts technology information for the searched/stored occupation.

Usage

```
technology(list)
```

Arguments

| | |
|------|--|
| list | the name of the list object that the socSearch data has been stored in |
|------|--|

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
technology(jobData)
```

| | |
|-------|---|
| tools | <i>Pull tools data from job extract stored as a list.</i> |
|-------|---|

Description

This function should be used after a socSearch has been stored. The function extracts tools information for the searched/stored occupation.

Usage

```
tools(list)
```

Arguments

| | |
|------|--|
| list | the name of the list object that the socSearch data has been stored in |
|------|--|

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
tools(jobData)
```

workActivities

Pull work activity data from job extract stored as a list.

Description

This function should be used after a socSearch has been stored. The function extracts work activity information for the searched/stored occupation.

Usage

```
workActivities(list)
```

Arguments

list the name of the list object that the socSearch data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
workActivities(jobData)
```

| | |
|-------------|--|
| workContext | <i>Pull work context data from job extract stored as a list.</i> |
|-------------|--|

Description

This function should be used after a socSearch has been stored. The function extracts work context information for the searched/stored occupation.

Usage

```
workContext(list)
```

Arguments

| | |
|------|--|
| list | the name of the list object that the socSearch data has been stored in |
|------|--|

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
workContext(jobData)
```

| | |
|------------|--|
| workStyles | <i>Pull work style data from job extract stored as a list.</i> |
|------------|--|

Description

This function should be used after a socSearch has been stored. The function extracts work style information for the searched/stored occupation.

Usage

```
workStyles(list)
```

Arguments

| | |
|------|--|
| list | the name of the list object that the socSearch data has been stored in |
|------|--|

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
workStyles(jobData)
```

| | |
|------------|--|
| workValues | <i>Pull work value data from job extract stored as a list.</i> |
|------------|--|

Description

This function should be used after a socSearch has been stored. The function extracts work value information for the searched/stored occupation.

Usage

```
workValues(list)
```

Arguments

`list` the name of the list object that the socSearch data has been stored in

Value

A data frame with relevant data.

Note

May not work if data are not properly formatted.

Author(s)

Eric Knudsen

Examples

```
data(jobData)
# You need to set your credentials with setCreds() prior to use.
workValues(jobData)
```


Index

- *Topic \textasciitildeabilities
 - abilities, [2](#)
- *Topic \textasciitildeauthentication
 - setCreds, [10](#)
- *Topic \textasciitildecredentials
 - setCreds, [10](#)
- *Topic \textasciitildeeducation
 - education, [3](#)
- *Topic \textasciitildeinterests
 - interests, [4](#)
- *Topic \textasciitildejobtitles
 - jobTitles, [5](#)
- *Topic \textasciitildejobzone
 - jobZone, [6](#)
- *Topic \textasciitildekeyword
 - keySearch, [6](#)
- *Topic \textasciitildeknowledge
 - knowledge, [7](#)
- *Topic \textasciitildeoccupation
 - occupation, [8](#)
- *Topic \textasciitilderelatedoccupations
 - relatedOccupations, [9](#)
- *Topic \textasciitildesearch
 - keySearch, [6](#)
 - socSearch, [11](#)
- *Topic \textasciitildeskills
 - skills, [11](#)
- *Topic \textasciitildesoccode
 - socSearch, [11](#)
- *Topic \textasciitildetasks
 - tasks, [12](#)
- *Topic \textasciitildetechnology
 - technology, [13](#)
- *Topic \textasciitildetools
 - tools, [13](#)
- *Topic \textasciitildeworkactivities
 - workActivities, [14](#)
- *Topic \textasciitildeworkcontext
 - workContext, [15](#)
- *Topic \textasciitildeworkstyles
 - workStyles, [15](#)
- *Topic \textasciitildeworkvalues
 - workValues, [16](#)
- *Topic **datasets**
 - jobData, [4](#)
- *Topic **environment**
 - cacheEnv, [3](#)
- *Topic **jobs**
 - onetr, [8](#)
- *Topic **occupations**
 - onetr, [8](#)
- *Topic **package**
 - onetr, [8](#)
- abilities, [2](#)
- cacheEnv, [3](#)
- education, [3](#)
- interests, [4](#)
- jobData, [4](#)
- jobTitles, [5](#)
- jobZone, [6](#)
- keySearch, [6](#)
- knowledge, [7](#)
- occupation, [8](#)
- onetr, [8](#)
- relatedOccupations, [9](#)
- setCreds, [10](#)
- skills, [11](#)
- socSearch, [11](#)
- tasks, [12](#)
- technology, [13](#)
- tools, [13](#)
- workActivities, [14](#)
- workContext, [15](#)
- workStyles, [15](#)
- workValues, [16](#)