

# Package ‘labstepR’

April 1, 2019

**Title** An R Package for Working with the Labstep API

**Version** 0.0.1

**Description** Convenient wrapper functions around the Labstep API. Document your experiments, attach files, comments and more.

**Depends** R (>= 3.1.0)

**Imports** http

**License** MIT

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 6.1.1.9000

**NeedsCompilation** no

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|            |  |
|------------|--|
| addComment | <i>Adds a comment to a thread on Labstep</i> |
|------------|--|

---

**Description**

This function allows you to comment on different content types

**Arguments**

|        |  |
|--------|--|
| user   | A labstep user object. Must contain an 'api_key' field. Returned from 'login' commande   |
| object | The labstep object you want to comment on. Can be 'protocol', 'experiment' or 'resource' |
| body   | The body of the comment in plain text.   |

**Value**

Returns a 'comment' object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
expName = 'My First Experiment'
expDesc = 'An experiment testing the labstepR library'
experiment <- createExperiment(user, expName, expDesc)
commentBody = 'An experiment testing the labstepR library'
comment <- addComment(user, experiment, commentBody)
print(comment)
```

---

|            |   |
|------------|---|
| attachFile | <i>Attaches a file to a thread on Labstep</i> |
|------------|---|

---

**Description**

This function allows you to attach a file to different content types

**Usage**

```
attachFile(user, object, filepath, caption)
```

**Arguments**

|          |  |
|----------|--|
| user     | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command    |
| object   | The labstep object you want to comment on. Can be 'protocol', 'experiment' or 'resource' |
| filepath | The path to ther file to attach.   |
| caption  | A caption describing your file (optional)  |

**Value**

Returns a 'comment' object with the file attached

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
expName = 'My First Experiment'
expDesc = 'An experiment testing the labstepR library'
experiment <- createExperiment(user, expName, expDesc)
filepath = 'mydata.RData'
save.image(filepath)
caption = 'The R workspace after running this script'
file <- attachFile(user, experiment, filepath, caption)
print(file)
```

---

attachProtocol

---

*Attach a Protocol to an Experiment on Labstep*


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**Description**

This function allows you to attach a Protocol to an existing Experiment.

**Usage**

```
attachProtocol(user, experiment, protocol)
```

**Arguments**

|            |   |
|------------|---|
| user       | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| experiment | The experiment you want to attach the protocol to. Must have at least an 'id' field.  |
| protocol   | The protocol you want to attach. Must have at least an 'id' field                     |

**Value**

Returns an 'experiment' object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
expName = 'My First Experiment'
expDesc = 'An experiment testing the labstepR library'
experiment <- createExperiment(user, expName, expDesc)
protocol <- createProtocol(user, 'My First Protocol')
experiment <- attachProtocol(user, experiment, protocol)
print(experiment)
```

---

|                  |                                 |
|------------------|---------------------------------|
| createExperiment | Create an Experiment on Labstep |
|------------------|---------------------------------|

---

**Description**

This function allows you to create an experiment card.

**Usage**

```
createExperiment(user, name, description = NULL, protocolIds = NULL)
```

**Arguments**

|             |   |
|-------------|---|
| user        | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| name        | The name you want to give your experiment.  |
| description | Give your experiment a description to help you remember what it was about.            |
| protocolIds | List of ids for protocols to attach to the experiment.                                |

**Value**

Returns an 'experiment' object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
expName = 'My First Experiment'
expDesc = 'An experiment testing the labstepR library'
experiment <- createExperiment(user, expName, expDesc)
print(experiment)
```

---

|               |                             |
|---------------|-----------------------------|
| createProject | Create a Project on Labstep |
|---------------|-----------------------------|

---

**Description**

This function allows you to create a Labstep Project.

**Usage**

```
createProject(user, name)
```

**Arguments**

|      |   |
|------|---|
| user | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| name | The name you want to give your Project.   |

**Value**

Returns an 'project' object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
project <- createProject(user, 'My First Project')
print(project)
```

---

|                |                                     |
|----------------|-------------------------------------|
| createProtocol | <i>Create a Protocol on Labstep</i> |
|----------------|-------------------------------------|

---

**Description**

This function allows you to create a protocol.

**Usage**

```
createProtocol(user, name)
```

**Arguments**

|      |   |
|------|---|
| user | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| name | The name you want to give your protocol.  |

**Value**

Returns an 'protocol' object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
protocol <- createProtocol(user, 'My First Protocol')
print(protocol)
```

---

|                |                                     |
|----------------|-------------------------------------|
| createResource | <i>Create a Resource on Labstep</i> |
|----------------|-------------------------------------|

---

**Description**

This function allows you to create a resource on Labstep.

**Usage**

```
createResource(user, name)
```

**Arguments**

|      |  |
|------|--|
| user | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command. |
| name | The name you want to give your resource  |

**Value**

Returns a 'resource' object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
resource <- createResource(user, 'My First Resource')
print(resource)
```

---

getExperiment

*Get Experiment*

---

**Description**

This function allows you to retrieve metadata for a single experiment

**Usage**

```
getExperiment(user, id)
```

**Arguments**

|      |   |
|------|---|
| user | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| id   | ID of the experiment to retrieve  |

**Value**

Returns an 'experiment' object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
experiment <- getExperiment(user, 123)
print(experiment)
```

---

|                |                        |
|----------------|------------------------|
| getExperiments | <i>Get Experiments</i> |
|----------------|------------------------|

---

**Description**

This function allows you to search your Experiments on Labstep.

**Usage**

```
getExperiments(user, count = 100)
```

**Arguments**

|       |   |
|-------|---|
| user  | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| count | Number of results to return. Defaults to 100.   |

**Value**

Returns a list of 'experiment' objects

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
experiments <- getExperiments(user)
print(experiments)
```

---

|            |                    |
|------------|--------------------|
| getProject | <i>Get Project</i> |
|------------|--------------------|

---

**Description**

This function allows you to retrieve metadata for a single project

**Usage**

```
getProject(user, id)
```

**Arguments**

|      |   |
|------|---|
| user | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| id   | ID of the project to retrieve   |

**Value**

Returns a 'project' object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
project <- getProject(user, 123)
print(project)
```

---

`getProtocol`*Get Protocol*

---

**Description**

This function allows you to retrieve metadata for a single protocol

**Usage**

```
getProtocol(user, id)
```

**Arguments**

|                   |   |
|-------------------|---|
| <code>user</code> | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| <code>id</code>   | ID of the protocol to retrieve  |

**Value**

Returns a 'protocol' object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
protocol <- getProtocol(user, 123)
print(protocol)
```

---

`getProtocols`*Get Protocols*

---

**Description**

This function allows you to search your Protocol library on Labstep.

**Usage**

```
getProtocols(user, count = 100)
```

**Arguments**

|                    |   |
|--------------------|---|
| <code>user</code>  | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| <code>count</code> | Number of results to return. Defaults to 100.   |



**Value**

Returns a list of ‘protocol’ objects

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
protocols <- getProtocols(user)
print(protocols)
```

---

getResource

*Get Resource*

---

**Description**

This function allows you to retrieve metadata for a single resource

**Usage**

```
getResource(user, id)
```

**Arguments**

|      |   |
|------|---|
| user | A labstep user object. Must contain an ‘api_key’ field. Returned from ‘login’ command |
| id   | ID of the resource to retrieve  |

**Value**

Returns a ‘resource’ object

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
resource <- getResource(user, 123)
print(resource)
```

---

getResources

*Get Resources*

---

**Description**

This function allows you to search your Resource library on Labstep.

**Usage**

```
getResources(user, count = 100)
```

**Arguments**

|       |   |
|-------|---|
| user  | A labstep user object. Must contain an 'api_key' field. Returned from 'login' command |
| count | Number of results to return. Defaults to 100.   |

**Value**

Returns a list of 'resource' objects

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
resources <- getResources(user)
print(resources)
```

---

|       |                                    |
|-------|------------------------------------|
| login | <i>Authenticate a Labstep user</i> |
|-------|------------------------------------|

---

**Description**

This function allows you to retrieve the user details for your Labstep account. It also returns your unique API key which you need to use the other Labstep API functions.

**Usage**

```
login(username, password)
```

**Arguments**

|          |  |
|----------|--|
| username | Your Labstep username (usually the email address you signed up with) |
| password | Your Labstep password  |

**Value**

Returns a 'user' object.

**Examples**

```
user <- login("demo@labstep.com", "demopassword")
print(user)
```

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