

# Package ‘moodleR’

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**Type** Package

**Title** Helper Functions to Work with 'Moodle' Data

**Version** 1.0.1

**Maintainer** Aleksander Dietrichson <dietrichson@gmail.com>

**Description** A collection of functions to connect to a 'Moodle' database, cache relevant tables locally and generate learning analytics.

'Moodle' is an open source Learning Management System (LMS) developed by MoodleHQ. For more information about Moodle, visit <<https://moodle.org>>.

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**URL** <https://github.com/chi2labs/moodleR>,  
<https://chi2labs.github.io/moodleR/>

**Encoding** UTF-8

**VignetteBuilder** knitr

**Suggests** knitr, rmarkdown, prettyunits, lubridate, testthat

**Imports** DBI, dplyr, ggplot2, tidytext, ggwordcloud, utils, stringr, rlang, scales, RMariaDB, glue, config, anytime, cli, lifecycle, RSQLite, usethis, RPostgres

**RdMacros** lifecycle

**RoxygenNote** 7.2.1

**NeedsCompilation** no

**Author** Aleksander Dietrichson [aut, cre],  
Chi Square Laboratories [cph],  
Darko Miletic [ctb],  
Pablo Pagnone [ctb],  
Alex Ondrus [ctb]

**Repository** CRAN

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check_md1_cache	<i>Check Cached Data</i>
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**Description**

Checks that the cached data is available.

**Usage**

```
check_md1_cache()
```

**Value**

invisible(NULL)

**Examples**

```
## Not run:
check_md1_cache()
```

```
## End(Not run)
```

---

example_config.yml	<i>Example Config yml File</i>
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**Description**

Opens an example config file in the active editor. If you already have a config.yml file cut-and-paste the "moodleR" section, and update the respective fields. Alternatively use "save as" to save this file as config.yml It is recommended that you check the config with config::get()

**Usage**

```
example_config.yml()
```

**Value**

invisible(TRUE) on success

**Examples**

```
## Not run:  
example_config.yml()  
  
## End(Not run)
```

---

mdl_config	<i>Moodle Configuration Table</i>
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**Description**

Get the complete moodle configuration table. Different from most mdl\_\* functions this function calls dplyr::collect() before returning (as a config-table is not going to cause memory overflow).

**Usage**

```
mdl_config(con = mdl_get_connection(), tbl_prefix = "mdl_")
```

**Arguments**

con	database connection object
tbl_prefix	table prefix

**Value**

A tibble

---

 mdl\_courses

*Get Courses*


---

### Description

Returns a reference to the (cached) course table, with the most relevant columns selected.

### Usage

```
mdl_courses(con = mdl_get_connection(), tbl_prefix = "mdl_")
```

### Arguments

con	a database connection object
tbl_prefix	prefix for tables

### Details

For convenience a join with the category table is made, and "category\_name" added

### Value

A dbplyr reference object.

---

 mdl\_create\_cache

*Creates a Local Cache*


---

### Description

Create local cache from a Moodle Database.

### Usage

```
mdl_create_cache(
  con = mdl_get_connection(use_cache = FALSE),
  format = c("sqlite"),
  tbl_prefix = "mdl_",
  output_dir = mdl_get_cache_dir(),
  output_filename = mdl_get_cache_filename()
)
```

**Arguments**

con	a database connection (to a moodle database)
format	output format (mysql, csv)
tbl_prefix	Moodle DB table prefix
output_dir	where does the cache go
output_filename	filename (in the case of sqlite output), or prefix (in_case of CSV download)

**Value**

invisible(NULL)

---

mdl_forum_posts	<i>Get Forum Posts</i>
-----------------	------------------------

---

**Description**

Returns a reference to the (cached) forum\_posts table, with the most relevant columns selected.

**Usage**

```
mdl_forum_posts(con = mdl_get_connection(), tbl_prefix = "mdl_")
```

**Arguments**

con	a database connection object
tbl_prefix	table prefix

**Details**

For convenience two additional columns: forum\_name and thread\_name; are added.

**Value**

A dbplyr reference object.

---

mdl\_get\_cache\_connection

*Connection to Cached Moodle Data*

---

### **Description**

Connection to Cached Moodle Data

### **Usage**

```
mdl_get_cache_connection(access = c("RO", "RWC"))
```

### **Arguments**

access            Specifies RO or RWC access

### **Value**

a DBI connection object

---

mdl\_get\_cache\_dir

*Get the Cache Directory*

---

### **Description**

The cache directory can be set in the config-file (moodleR:->cache\_dir:), which is recommended. If it is not present, or no config is found, a tempdir() will be returned.

### **Usage**

```
mdl_get_cache_dir()
```

### **Value**

Character vector with path

---

`mdl_get_cache_filename`*Get the Cache Filename*

---

**Description**

The cache filename ("mdl\_cache.sqlite" by default), can be set in the config-file((moodleR:->cache\_dir)).

**Usage**

```
mdl_get_cache_filename()
```

**Value**

Character vector with path

---

`mdl_get_connection`      *Connect to Moodle Data*

---

**Description**

Returns a connection to a Moodle database or the cached version if available.

**Usage**

```
mdl_get_connection(use_cache = TRUE, config = "default")
```

**Arguments**

<code>use_cache</code>	If TRUE (the default) connection to the local cache is returned.
<code>config</code>	Select configuration from config file

**Value**

a DBI connection object

---

mdl\_grades

*Get Grades*

---

### Description

Returns a reference to the (cached) grades table, with the most relevant columns selected.

### Usage

```
mdl_grades(con = mdl_get_connection(), tbl_prefix = "mdl_")
```

### Arguments

con	database connection object
tbl_prefix	table prefix

### Value

A dbplyr reference object

### Examples

```
## Not run:  
# Get the course grades for courseid 52  
course_grades <- mdl_grades() %>%  
  filter(courseid == 52, item_type == "course") %>%  
  collect()  
# Get the other grades items:  
grades_items_grades <- mdl_grades() %>%  
  filter(courseid == 52, item_type != "course") %>%  
  collect()  
  
## End(Not run)
```

---

mdl\_log

*Access Moodle's Logs*

---

### Description

Returns a reference to the log-table.

### Usage

```
mdl_log(con = mdl_get_connection(), tbl_prefix = "mdl_")
```



**Arguments**

con	A database connection object
tbl_prefix	table prefix

**Value**

A dbplyr reference object.

---

mdl_users	<i>Get Moodle Users</i>
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---

**Description**

Returns a reference to the (cached) users table, with the most relevant columns selected.

**Usage**

```
mdl_users(con = mdl_get_connection(), tbl_prefix = "mdl_")
```

**Arguments**

con	database connection object
tbl_prefix	table prefix

**Value**

A dbplyr reference object

---

plot.mdl_forum_posts	<i>Wordcloud Plot</i>
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---

**Description**

Create a simple wordcloud plot based on a mdl\_posts object.

**Usage**

```
## S3 method for class 'mdl_forum_posts'
plot(x, use_base_graphics = FALSE, ...)
```

**Arguments**

x	a lazy tbl reference or data.frame.
use_base_graphics	Should base graphics be produces instead of ggplot?
...	passed to ggplot or base graphics

**Value**

A ggplot

---

plot.mdl_grades	<i>Plot Moodle Grades</i>
-----------------	---------------------------

---

**Description**

Histogram (density) of normalized grades

**Usage**

```
## S3 method for class 'mdl_grades'
plot(x, use_base_graphics = FALSE, ...)
```

**Arguments**

x	a lazy tbl reference
use_base_graphics	Should base graphics be used (instead of ggplot)
...	passed along to ggplot or base graphic function

**Value**

A ggplot or base graphic plot

---

print.mdl_courses_summary	<i>Print Moodle Courses Summary</i>
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---

**Description**

Overrides generic print function to pretty-print a summary of the course information.

**Usage**

```
## S3 method for class 'mdl_courses_summary'
print(x, ...)
```

**Arguments**

x	an object used to select a method.
...	further arguments passed to or from other methods.

**Value**

invisible(x). Typically called for its side effect which is a pretty-print of the relevant information.

---

```
print.mdl_grades_summary
```

*Print Moodle Grades Summary*

---

**Description**

Overrides generic print function to pretty-print a summary of the grades from the gradebook.

**Usage**

```
## S3 method for class 'mdl_grades_summary'  
print(x, ...)
```

**Arguments**

x	an object used to select a method.
...	further arguments passed to or from other methods.

**Value**

invisible(x). Typically called for its side effect which is a pretty-print of the relevant information.

---

```
print.mdl_post_summary
```

*Print Moodle Forum Post Summary*

---

**Description**

Overrides generic print function to pretty-print a summary of the Moodle posts.

**Usage**

```
## S3 method for class 'mdl_post_summary'  
print(x, ...)
```

**Arguments**

x	an object used to select a method.
...	further arguments passed to or from other methods.

**Value**

invisible(x). Typically called for its side effect which is a pretty-print of the relevant information.

---

```
print.mdl_users_summary
```

*Print Moodle Users Summary*

---

### Description

Overrides generic print function to pretty-print a summary of the users.

### Usage

```
## S3 method for class 'mdl_users_summary'  
print(x, ...)
```

### Arguments

x                    an object used to select a method.  
...                  further arguments passed to or from other methods.

### Value

invisible(x). Typically called for its side effect which is a pretty-print of the relevant information.

---

```
summary.mdl_courses    Summary of mdl_courses Object
```

---

### Description

Provides summary statistics for moodle courses

### Usage

```
## S3 method for class 'mdl_courses'  
summary(object, ...)
```

### Arguments

object              a lazy tbl reference with class mdl\_grades  
...                  currently ignored

### Value

a tibble with the summary.

---

`summary.mdl_forum_posts`*Summary of mdl\_forum\_posts Object*

---

**Description**

Provides summary statistics for forum posts.

**Usage**

```
## S3 method for class 'mdl_forum_posts'  
summary(object, ...)
```

**Arguments**

<code>object</code>	a lazy tbl reference with class <code>mdl_grades</code>
<code>...</code>	currently ignored

**Value**

a tibble with the summary.

---

`summary.mdl_grades`*Summary of mdl\_grades Object*

---

**Description**

Provides summary statistics for moodle grades

**Usage**

```
## S3 method for class 'mdl_grades'  
summary(object, ...)
```

**Arguments**

<code>object</code>	a lazy tbl reference with class <code>mdl_grades</code>
<code>...</code>	currently ignored

**Value**

a tibble with the summary.

---

summary.mdl\_users      *Summary of mdl\_users Object*

---

**Description**

Provides summary statistics for moodle courses

**Usage**

```
## S3 method for class 'mdl_users'  
summary(object, ...)
```

**Arguments**

object	a lazy tbl reference with class mdl_grades
...	currently ignored

**Value**

a tibble with the summary.

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