

# Package ‘moodleR’

April 20, 2021

**Type** Package

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

**Version** 0.3.2

**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>>.

**License** MIT + file LICENSE

**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, here, cli,  
lifecycle, RSQLite

**RdMacros** lifecycle

**RoxygenNote** 7.1.1

**NeedsCompilation** no

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

**Repository** CRAN

**Date/Publication** 2021-04-20 07:50:02 UTC

**R topics documented:**

check_md1_cache . . . . .	2
mdl_config . . . . .	3
mdl_courses . . . . .	3
mdl_create_cache . . . . .	4
mdl_forum_posts . . . . .	4
mdl_get_cache_connection . . . . .	5
mdl_get_cache_dir . . . . .	5
mdl_get_cache_filename . . . . .	6
mdl_get_connection . . . . .	6
mdl_grades . . . . .	7
mdl_log . . . . .	7
mdl_users . . . . .	8
plot.mdl_forum_posts . . . . .	8
plot.mdl_grades . . . . .	9
print.mdl_courses_summary . . . . .	9
print.mdl_grades_summary . . . . .	10
print.mdl_post_summary . . . . .	10
print.mdl_users_summary . . . . .	11
summary.mdl_courses . . . . .	11
summary.mdl_forum_posts . . . . .	12
summary.mdl_grades . . . . .	12
summary.mdl_users . . . . .	13
<b>Index</b>	<b>14</b>

---

check_md1_cache	<i>Check Cached Data</i>
-----------------	--------------------------

---

**Description**

Checks that the cached data is available.

**Usage**

```
check_md1_cache()
```

**Value**

invisible(NULL)

**Examples**

```
## Not run:
check_md1_cache()

## End(Not run)
```

---

mdl_config	<i>Moodle Configuration Table</i>
------------	-----------------------------------

---

**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())
```

**Arguments**

con                    database connection object

**Value**

A tibble

---

mdl_courses	<i>Get Courses</i>
-------------	--------------------

---

**Description**

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

**Usage**

```
mdl_courses(con = mdl_get_connection())
```

**Arguments**

con                    a database connection object

**Details**

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

**Value**

A dbplyr reference object.

---

mdl_create_cache	<i>Creates a Local Cache</i>
------------------	------------------------------

---

### 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())
```

### Arguments

con	a database connection object
-----	------------------------------

**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())
```

### Arguments

con                    a database connection object

### 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())
```

### Arguments

con                    A database connection object

**Value**

A dbplyr reference object.

---

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

---

**Description**

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

**Usage**

```
mdl_users(con = mdl_get_connection())
```

**Arguments**

con                    a database connection object

**Value**

A dbplyr reference object

---

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

---

**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>
---------------------------	-------------------------------------

---

**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

object	a lazy tbl reference with class mdl_grades
...	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

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

# Index

`check_md1_cache`, 2

`md1_config`, 3

`md1_courses`, 3

`md1_create_cache`, 4

`md1_forum_posts`, 4

`md1_get_cache_connection`, 5

`md1_get_cache_dir`, 5

`md1_get_cache_filename`, 6

`md1_get_connection`, 6

`md1_grades`, 7

`md1_log`, 7

`md1_users`, 8

`plot.md1_forum_posts`, 8

`plot.md1_grades`, 9

`print.md1_courses_summary`, 9

`print.md1_grades_summary`, 10

`print.md1_post_summary`, 10

`print.md1_users_summary`, 11

`summary.md1_courses`, 11

`summary.md1_forum_posts`, 12

`summary.md1_grades`, 12

`summary.md1_users`, 13