Onetutor

Programmieren 3

Kevin Kosinski, Ron Wagner, Paul Hentgen

Table of contents

[OneTutor 2](#_Toc476499083)

[What is OneTutor 2](#_Toc476499084)

[Structure 2](#_Toc476499085)

[How does OneTutor work 2](#_Toc476499086)

[Registration/Login 2](#_Toc476499087)

[Create and edit courses 2](#_Toc476499088)

[Logging in to a course 3](#_Toc476499089)

[Evaluating exercises 3](#_Toc476499090)

[Known issues 3](#_Toc476499091)

[UML-diagram 4](#_Toc476499092)

# OneTutor

## What is OneTutor

OneTutor is a learning software for pupils and students. When registered, you have the possibility to access one of many courses. Tutors or professors can add or remove courses. Every course has a license key. The tutors/professors need to hand their students this license key. The courses can be edited by the tutors/professors by uploading or deleting material (worksheets, lecture notes…), as well as multiple-choice or cloze exercises. For the exercises the tutor/professor can upload a sample solution. That way the exercises are automatically checked and evaluated.

## Structure

The platform represents OneTutor. The platform keeps track of all the members. There are administrators for the platform that can create institutions. Inside the platform many institutions can be created. Each institution has administrators that can create or delete courses. Courses can be entered by members with the correct license key. Courses also have an administrator. This administrator can edit the course and its contents.

## How does OneTutor work

### Registration/Login

On registration, the user is required to enter the first name, last name and an e-mail address. If the e-mail address is not already in use, a new member, with an according ID, is created.

On login, the entered e-mail address is checked. If it matches an e-mail address of an existing member, the login will be successful.

### Create and edit courses

On creation, it is first checked, if the user trying to create a course is an administrator of the according institution. If that is the case a new course with the given title and a new ID, as well as a randomly generated license key is created.

All expansions and edits can only be done by an administrator. This is checked on every edit or expansion of the course. When adding an exercise and the according solution you can differentiate between a cloze and a multiple-choice exercise.

On uploading a new material, the desired file is being read from the home directory. The file will then be converted and copied into a new file on the server. The file does not need to be a .txt file.

### Logging in to a course

When a user is trying to log into a course, his entered license key is compared with the one that is assigned to the course. If they match the user is allowed access to the course.

### Evaluating exercises

When an exercise is submitted, every task solved by the user is compared with the solution the tutor/professor submitted. For each matching solution, the student is granted a point. In the end the points the student reached are compared with maximum possible amount of points to reach. The student then gets his result as a percentage.

## Known issues

When executing the class CMultipleChoiceTest, the test testControlMultipleChoice() will most likely fail. If you execute the test testControlMultipleChoice() on its own though, it will finish successfully.

## UML-diagram



