4. Homework – exercises – login

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Test cases

- 1. Test user that does not exist.
- 2. Test wrong passwords
- 3. 1. and 2. more than 3 times
- 4. Otherwise login?

Equivalence classes

- Input classes
 - o User & pw OK
 - User does not exist
 - User exists, pw wrong
 - User NULL
 - o PW NULL
 - o SQL code
- Output classes (error codes)
 - 0 -> no error, login
 - o 1 -> user not found, no login
 - o 2 -> user found, pw wrong, no login
 - o Crash
 - o Exception
- 1. Test: user & pw OK

Fred 123456Liz RichardMarkus password

During this test existing users and correct passwords are entered and a correct login and the error code 0 are expected.

- 2. Test: user does not exist
 - Fre anyLz anyMakus any

During this test unexisting users are tested, the pw does not matter. The expected error code is 1, no login is expected, the app should close.

- 3. Test: user exists, pw wrong
 - Fred 12345Liz RichrdMarkus passord
- 4. Test: user exists, pw of another user
 - Fred RichardLiz passwordMarkus 123456

During these two tests existing users are tested, firstly with wrong passwords, secondly with existing passwords of another user. Both expect error code 2, no login, app closes.

- 5. Test: User NULL
 - Not defined, app could crash
- 6. Test: PW NULL
 - Not defined, app could crash
- 7. SQL code in PW-box
 - o Exception should be thrown

There are no "Grenzfälle".?

Path tests

- 1. Input not OK (no name, no pw, unallowed characters in name,...) -> no login
- 2. Input OK and correct 1st time (checked with database) -> login -> main app
- 3. Input OK but not correct 1st time -> no login, Input OK and correct 2nd time -> login -> main App
- 4. Input OK but not correct 1st and 2nd time -> no login, Input OK and correct 3rd time -> login -> main App
- 5. Input OK but not correct 1st, 2nd and 3rd time -> no login, close app

Reflect

In principle a system test is better for equivalence classes, because it only includes in- and output (ignoring the error code in our solution above),

for path test a unit test is better, because one should know the structure of the programm (loops, ifs, ...).