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
  + User & pw OK
  + User does not exist
  + User exists, pw wrong
  + User NULL
  + PW NULL
  + SQL code
* Output classes (error codes)
  + 0 -> no error, login
  + 1 -> user not found, no login
  + 2 -> user found, pw wrong, no login
  + Crash
  + Exception
* 1. Test: user & pw OK
  + Fred 123456
  + Liz Richard
  + Markus 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 any
  + Lz any
  + Makus 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 12345
  + Liz Richrd
  + Markus passord
* 4. Test: user exists, pw of another user
  + Fred Richard
  + Liz password
  + Markus 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
  + 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

1. Input OK but not correct 1st and 2nd time -> no login, Input OK and correct 3rd time –> login -> main App
2. 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, …).