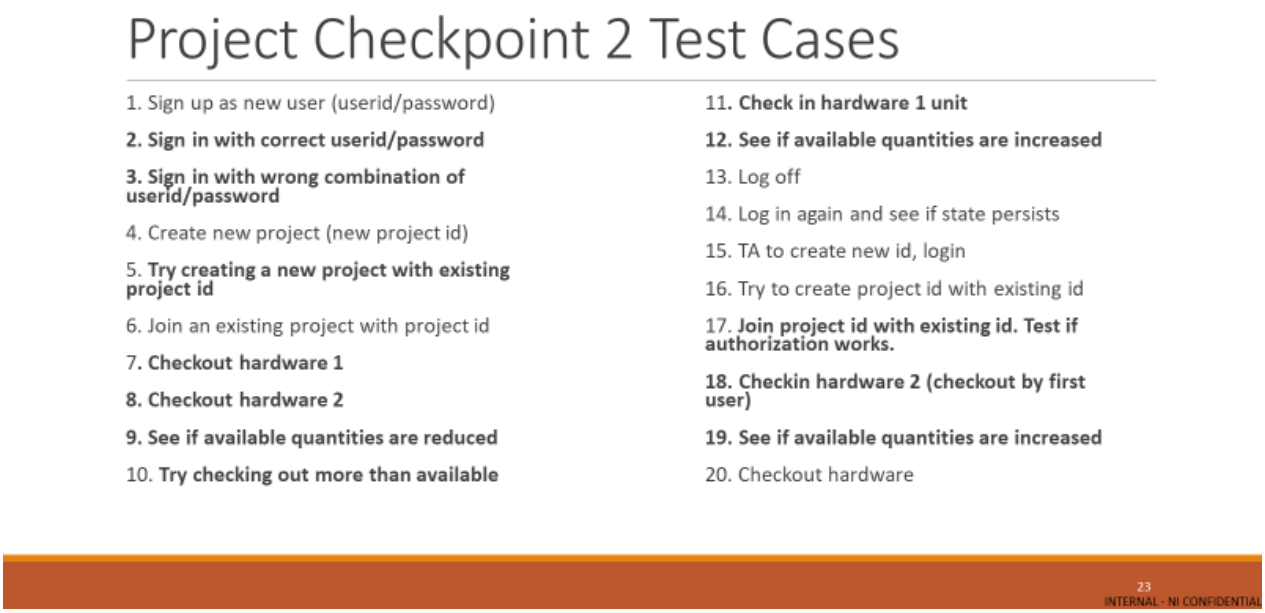
Homework 7

In this homework, you will use the fundamentals of Test Driven Development (TDD) and test frameworks that we have discussed in the class.



This slide shows the test cases that your TA and I will be using for grading checkpoint 2. In this homework, you will be using the concepts of TDD to develop test code for the test cases in bold font (in the above figure).

In your test code, you can use a function prototype for the server-side code. As part of this homework, you are not required to write the actual function that is being tested.

I am providing a sample test code below for reference. My test code assumes that the methods such as `addUserToDatabase`, `checkPassword` have been defined elsewhere

```
import userLogin

import inspect

import pytest_check as check


def test_userLogin():

    # Add new user name to the database

    X = userLogin.addUserToDatabase(newUserName)
```

```
# Check if new user name is added successfully to the database
check.equal(x, True)
# Add existing user name to the database
X = userLogin.addUserToDatabase(existingUserName)
# Check if existing user name exists in database
check.equal(x, False)
# Send password to the database
X = userLogin.checkPassword(password)

# check if correct password is decrypted correctly
check.equal(x, True)
```

Complete the following tasks for this homework:

1. Review the code provided above.
2. Write test code for Step 5
3. Write test code for Steps 7,8,9
4. Write test code for Steps 11,12
5. Write test code for Steps 17,18,19

What to submit:

Python file for your test code

Rubric:

This homework will be graded in two phases. In Phase 1 (for 3 points), TAs will manually review the test code that you have provided. We will not run the test code, since we do not have any of the methods that your test code is calling.

During Checkpoint3 discussions, TAs and I will revisit the test code that you have written and discuss the following

1. Were you able to use the testcode to test the final implementation?
2. If yes, what was the outcome of the testing
3. If no, what kind of refactoring would the test code require

Requirement	Points

TAs will manually review the test code that you have submitted. Goal here is to review the approach that you have taken in developing test code.	3
Checkpoint3 Discussions	3