

# National Taipei University of Technology

## Windows Programming (Fall 2018)

### Homework #5

Deadline: 11/28 (Wed), before 2:00 PM

**Attention: the follows are rules that you must follow. If you violate these rules, your homework gets zero point, no mercy.**

1. No late homework is accepted.
2. Coping is not allowed – you should complete your homework by yourself.

In this week you are required to write the GUI tests for your program.

**This homework is incremental, meaning that you need to make sure that your design is easy to maintain. You will need to extend your program in the future.**

#### [20 pts] GUI Testing

You are required to write acceptance tests by using UI Automation Framework. Every control (e.g., textbox, button, menu item, radio button, etc.) belongs to your Form should be tested for at least once. You should test every control with independent test cases, and then test the entire application with one or more integrated test cases. Please report **the code coverage of your acceptance tests (not including the code covered by unit tests)**. You need to assign accessible names for the controls. Note that every test method should have some (at least one) meaningful assertions.

#### [8 pts] Code Quality

The grading of code quality will be based on whether your programs have bad smells. Your score depends on the smell density (number of smells per thousand lines of code) of your code. **You have to ensure that the code generated by Windows Form Designer do not infringe your coding standard.**

#### [2 pts] Summary

You are required to turn in your homework summary with time log (the time in hours that you spent in this homework, including documentation, as precisely as possible) in Word format. Please download a template from the instructor's website.

#### Notice:

1. **You need to put your unit and GUI test files to an independent “project”.**
2. After finishing your homework, please pack and compress your summary and your project *without binary files; please deleting the “bin” and “TestResults” folders.*