

VBA Project – Isysguy.com

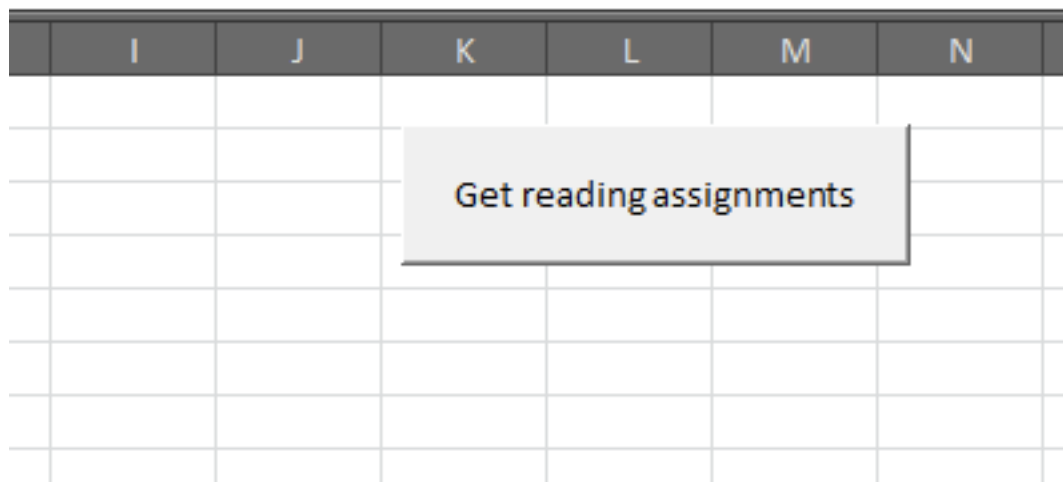
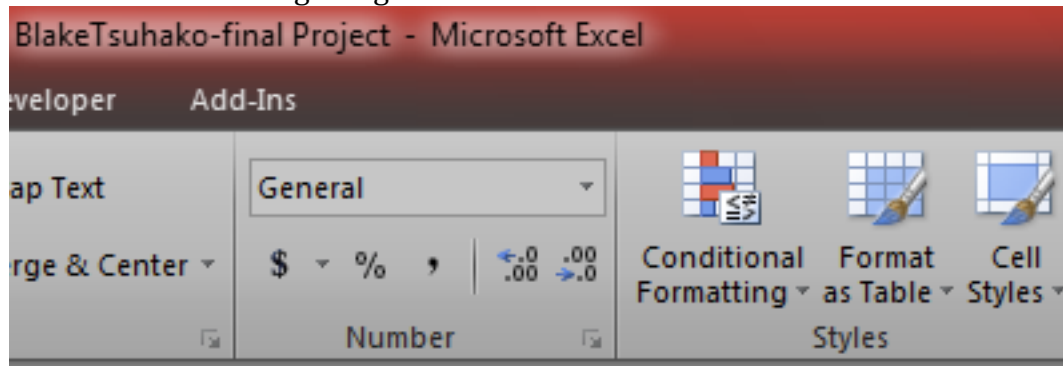
Executive Summary

As a TA for data communications, I use Professor Lindstrom's site, isysguy.com, to manage student assignments and grades. With the site as it currently exists, it is hard to see a student's assignment from week to week. It would be nice to download that data into Excel to see progression from week to week, as well as check for duplicate submissions. After entering your isysguy.com username and password, the worksheet checks the classes you TA for and downloads all the reading assignments. Once that's finished, the system looks for duplicates (highlighting matches along the way), and creates a summary report.

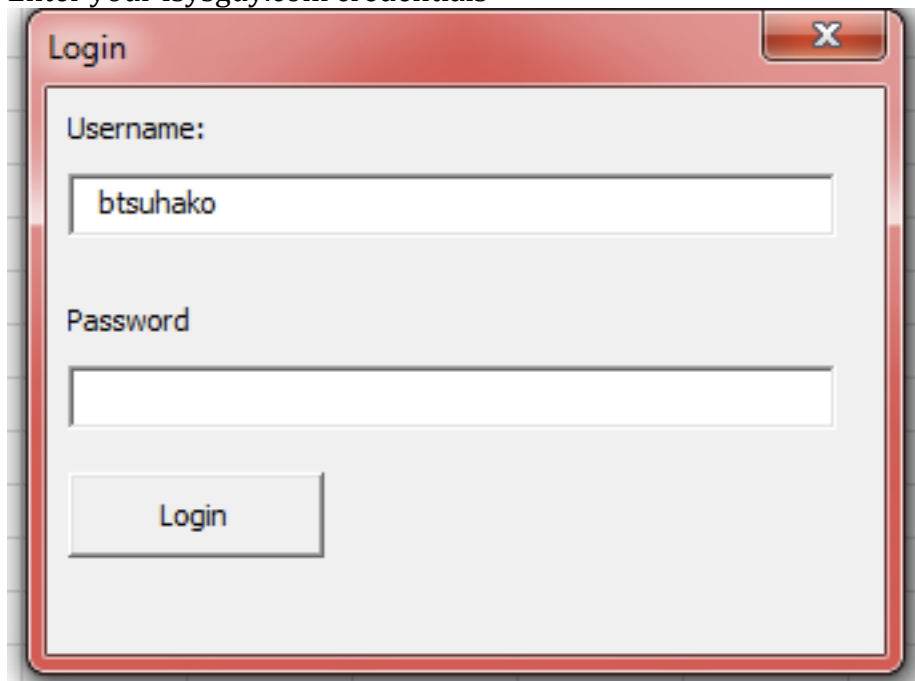
Documentation

The overall flow of the application goes as follows:

1. Click the "Get Reading Assignments" button

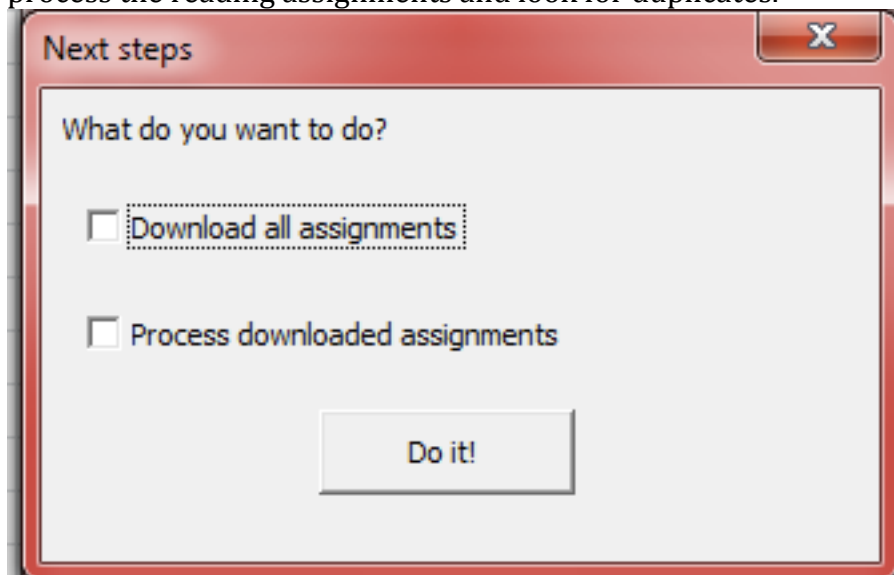


2. Enter your Isysguy.com credentials



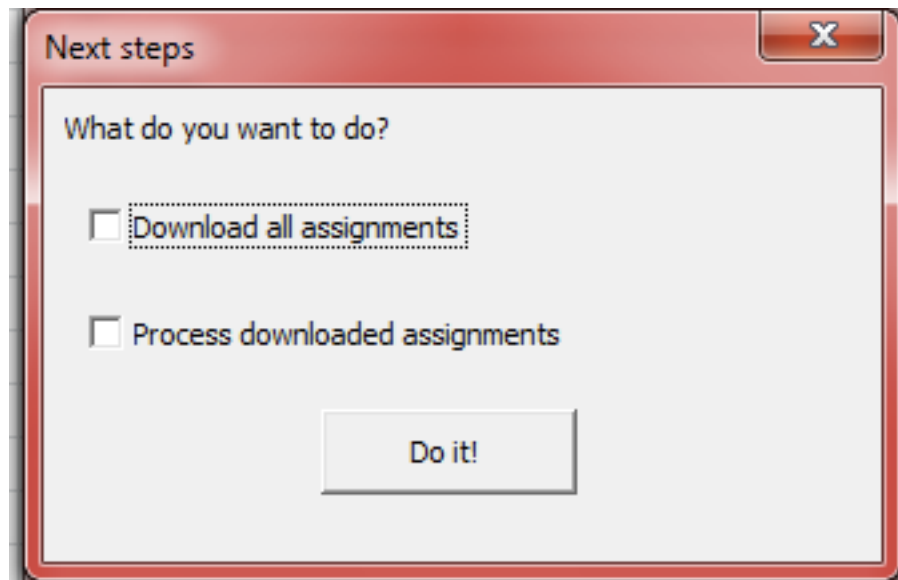
A screenshot of a 'Login' dialog box with a red title bar and a close button (X). It contains two input fields: 'Username:' with the text 'btsuhako' and 'Password:' which is empty. Below the fields is a 'Login' button.

3. Select your options
 - a. Download assignments – the macro goes to the Isysguy.com website to scrape for all reading assignments.
 - b. Process – If there is data in the spreadsheet, then the macro will process the reading assignments and look for duplicates.



A screenshot of a 'Next steps' dialog box with a red title bar and a close button (X). It contains the text 'What do you want to do?' followed by two checkboxes: 'Download all assignments' and 'Process downloaded assignments'. Both checkboxes are currently unchecked. Below the checkboxes is a 'Do it!' button.

4. A report is created on the first worksheet of assignments that are flagged as possible duplicates. You can drill down to the downloaded assignments in the section tabs, and the flagged reading assignments are flagged in yellow.



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	UNIX is an operating system that was originally created in the 1960's for	An active directory is a directory structure used on Microsoft Windows based	An active directory is a directory structure used on Microsoft Windows based

Difficulties

A lot of Googling was necessary to solve some of the problems encountered, and sometimes plain trial and error worked to figure things out.

Several difficulties were encountered when completing this project, but the system accomplishes everything set out in the proposal. One of the difficulties was the nested tables on the website. Fortunately Excel / IE condenses <table> data inside of a <td> tag. This made things easier when identifying the rows that were labeled with "Reading Assignment"

Another problem overcome was extracting URLs from links on the page. Fortunately Microsoft provides an `IHTMLAnchorElement` with the necessary properties to access the link's attributes.

A useful and robust feature included is the use of regular expressions. I used regex to extract URLs from the students' submissions. These URLs were loaded into a collection and compared to the students' other assignments to find duplicate submitted assignments. Sadly some duplicated assignments were found.