

Individual Project Report

Your Name:	Lim Kah Ghi (A0100172A)
Certificate:	Graduate Certificate in Intelligent Software Agents – ISA/IPA project

1. Your personal contribution to the project.

In this project, I was given the opportunity to play with XPath and contributed to the first iteration of our web scrape solution. After CK's class, my groupmate, Ryan, and I realized how a proper XPath should look like and how we can slowly build our robot solution bit by bit into the final solution. While Ryan went on to further improve on the selectors, I started with the report. Besides this, I recorded the video promoting our solution.

2. What you have learnt from the project.

From this project, I have learnt a few key concepts such as using XPath selectors effectively (by anchoring on elements that would rarely change) and how to progressively build our code into a full-fledge solution. This is done by making different versions of the script, with each new version an enhanced version from the previous. This not only ensures that we do not make a change that cannot be reversed, it also keeps a working copy of a software agent available while doing upgrades. The working copies can also be used to build our own library of functions in other projects as well.

Thanks to Ryan, I have also learnt how a simple UI package such as tkinter can be utilized to wrap our code and package it nicely for the user to interact with. This was something new to me as I usually write code for my own use and do not have the experience on wrapping our code and making an interface for the user to use.

3. How you can apply this in future work-related projects.

With experience in XPath and web automation, I have utilized it in a work-related project. In my workplace, we have an accredited test lab that does testing based on various test methods from ASTM. ASTM standards may change and as our company do not subscribe to the auto-notification system, we run into a chance of missing an update until an audit is approaching.

Master of Technology in Intelligent Systems

This leaves very little time to react to any important changes in the accredited test methods. As such, I have written a script tied to Windows Task Scheduler that automatically scrapes the ASTM website weekly for the list of accredited test methods used by the lab. Currently, the software agent can scrape the website, capture the image and evaluate if there has been a change or no change to the test methods. Further work would include having an output (update/no update) emailed to one of the employees in the lab.