## Investigate the achievability of Internet Explorer as a Selenium node in a container

For the execution of web based test suites, there is a need for the tests to be run on Internet Explorer to ensure a good coverage of use cases. Unfortunately, the repository I got the images from to run the selenium hub and nodes in containers, did not offer an image for an Internet Explorer node.

There is, however, a NodeBase dockerfile provided to serve as a basis from where to build your own dockerfile to create a non-standard image. The NodeBase is equipped with only the install of selenium, and does not include a browser. So maybe I will be able to put an Internet Explorer on there.

However, the issue here is that the NodeBase image is based on the Base image in the repository that in is turn based on Ubuntu 16.04. In addition, Internet explorer never was ported to Ubuntu, or any other Linux distribution for that matter, so installing it on the NodeBase image is practically impossible.

There is always the possibility of installing wine (a compatibility layer capable of running windows applications on other operating systems such as Linux and macOS), but that would be a bad idea as running in on a compatibility layer in a container seems like more trouble than it’s worth. Especially considering that Internet Explorer is known for running slowly and being generally unstable on wine.

Another problem is that if you were to build a docker image based on Windows and run an Internet Explorer on it that way, then you wouldn’t be able to run that image on a Linux. This is because a container image always needs to be based on the same OS as the one you are running it on.

The workaround here is just to run a selenium node running Internet Explorer on a windows machine and adding it to the grid. This way we lose the scalability of running it as a container, but it is necessary to get it working.