ABSTRACT
For our project, we constructed our own e-commerce website using an open-source template to use within our server as a simulation for a small business. Working through the server assigned through us, we installed our e-commerce site and built a security program around it. Our security includes an Avast anti-virus, Tripwire IDS, Fail2Ban IPS, and the Red Hat firewall. We also changed some settings within the server to only allow for some changes to be made as well as changed user and root passwords.

Methods
We researched the best route to go through with to find the perfect security system with the tools available to us. We found that the best course of action would be to install the Avast anti-virus, the Tripwire IDS, the Fail2Ban IPS, and the important Red Hat firewall.

RESULTS
Our server was safely configured into two layers. The first being the user interface while the second and main one being the security layer. Within that we implemented a firewall, an Avast anti-virus, Tripwire IDS, the Fail2Ban IPS, as well as creating a secure login. With those tools working in our server we were able to secure it from outsiders trying to log into our remote server.

Resources:
Avast: https://www.avast.com/en-us/index#pc
Tripwire: https://www.tripwire.com/free-downloads
Fail2Ban: https://www.fail2ban.org
Red Hat: https://www.redhat.com/en