Submit a technical plan/road map for moving the entire network of a company (TROLL) to the cloud. Below is relevant information.

# Troll Leadership / Development Team

* **Princess Poppy** - Leader of the Trolls and a visionary in offering “hugs-as-a-service” and developing ideas to offer Bergens happiness.
* **Branch** - Chief Information Security Officer for the Trolls. Branch is understandable paranoid and likes to have control and keep all IT in house. He does not like Cloud Guy, I mean who wears socks with no shoes?
* **Cloud Guy** – Chief Information Officer for the Trolls. Cloud Guy leaders the Troll’s IT vision and wants to move the Trolls into the cloud and take advantage of the services that cloud environment can offer. Cloud Guy has hired you as a consultant to help develop a secure cloud implementation for the Troll’s website and to get buy in from Branch.
* **Smidge** – System administrator
* **Guy Diamond** – Web developer
* **Biggie** – Network engineer
* **Cooper** – Web developer / System administrator

# Technical Background

Capitalizing on the massive demand for anything Troll-related, the Trolls began to offer videos of their escapades to Bergens from their website **ENPM809J Troll World**. The site sells videos on demand to Bergen customers all around the world. The site quickly went viral and has since suffered downtime and other issues due to their popularity.

Due to a failure to properly backup the site and do proper code versioning the original site was lost and the current site was quickly written to get content back online. The entire site currently runs on a single Linux host, a copy of which has been provided as the virtual machine in the “**Project**” folder. The code is written in Python3 and Flask (web framework written in Python) with nginx acting as a reverse proxy between the code and the user.

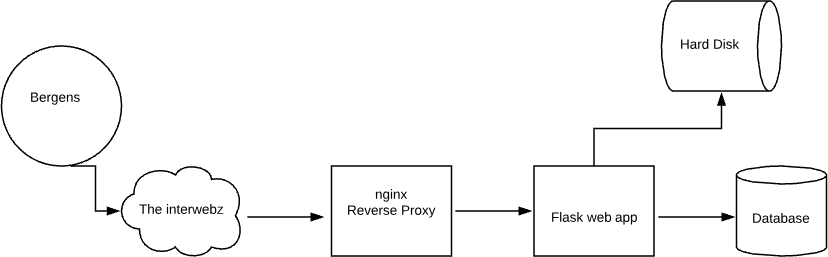
The site as presented to you does not actually offer video on demand or process credit cards –

## PRETEND IT DOES.

**Current Issues To Consider**

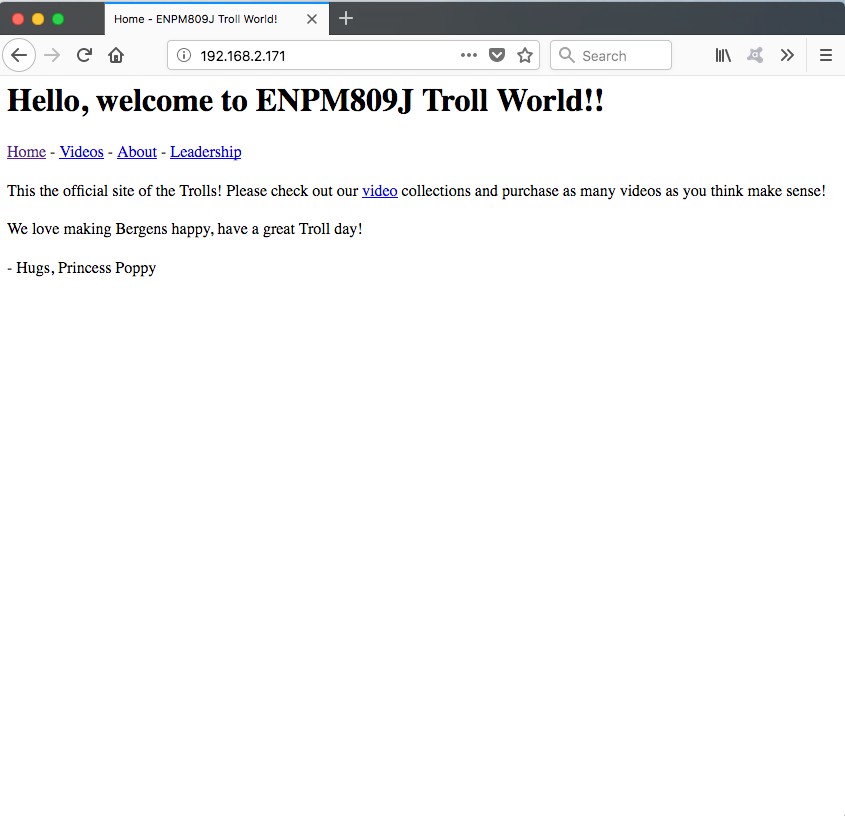
* Firm do not currently have a patching strategy
* Firm do not currently have a backup strategy
* Firm do not currently have an account permission strategy, every use has the ability to run privileged commands on the web server if they want to
* Their entire website infrastructure is highly vulnerable to DDoS, hardware failures, and troll error
* The website has experienced DDoS attacks and compromise attempts
* Website has slow downloads and order processing speed.

# Current Website Architecture

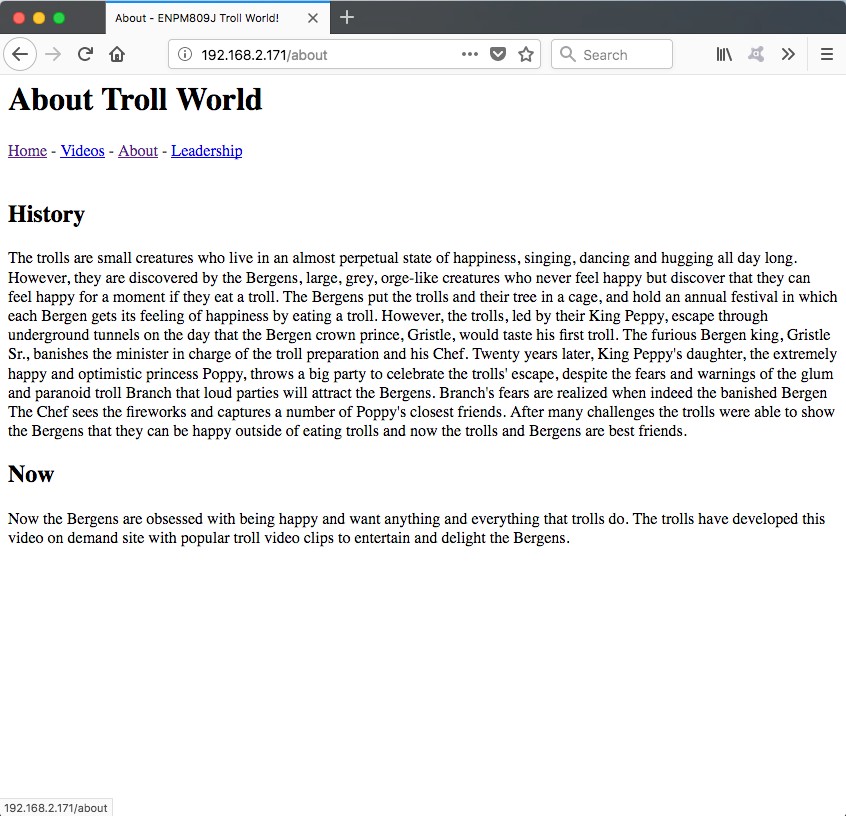


Customer comes over the Internet and connects to an nginx reverse proxy running on port 80. That forwards to the web app (written in Python with the Flask web framework) on port 5000. A MySQL database is running on 3306 for storage of queries. Media for the video-on-demand is stored locally on the hard drive of the web server. The code is also available here: https://github.com/kts262/enpm809j

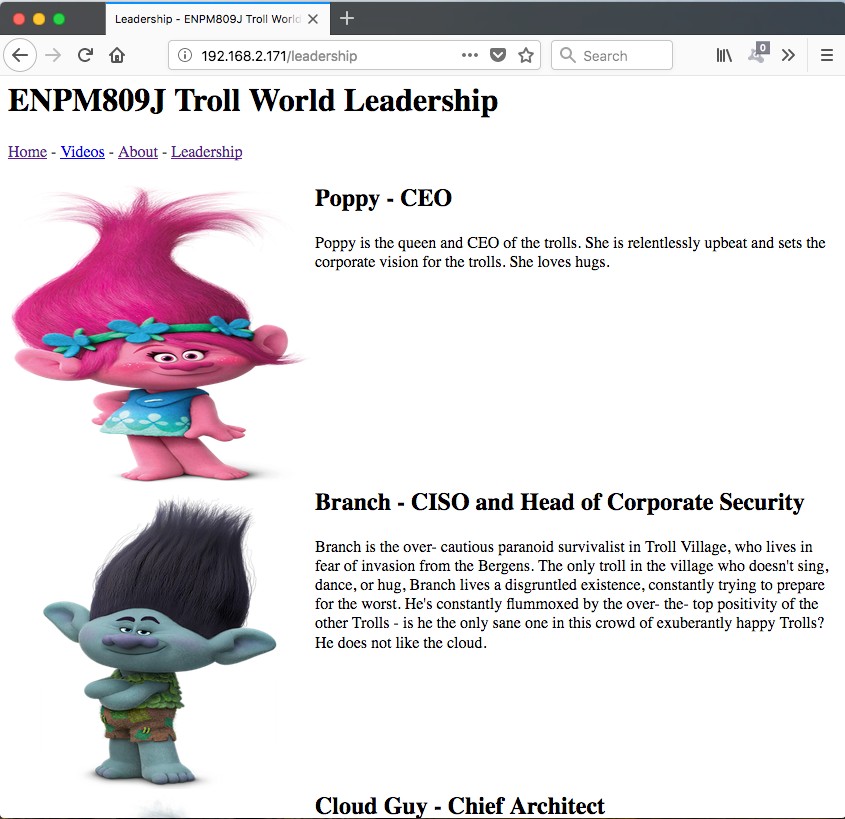
## Appendix – Site Pages Index (static content)



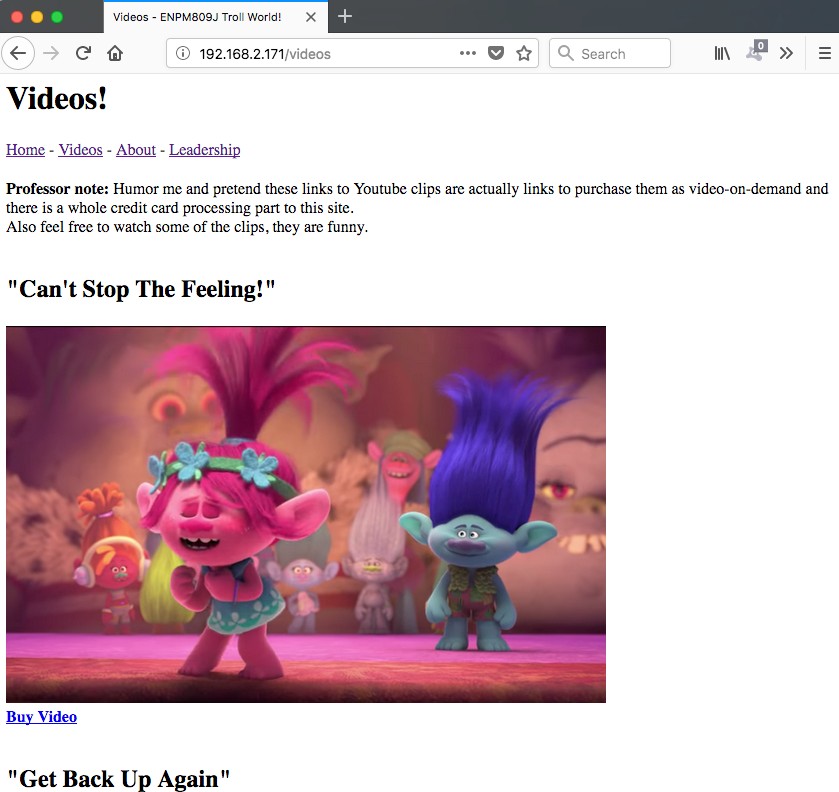
**About (static content)**



**Leadership (static content)**



**List of Videos (dynamic content)**



**Buy video (dynamic content)**

