Unix Project Proposal

**Project Description:** We will set up a VPS to host a website that automatically updates when we change the code on GitHub. Our project will build a secure and reliable environment by setting up a key-based SSH login and managing the servers through our VPS. The website will have basic user authentication, requiring users to log in before viewing the content. We will also automate the deployment and update the website directly from GitHub to the server.

**Platform of choice:** Server: VPS (provider to be chosen)

**Demonstration Plan:** We will show the website updating live on a browser from our laptop after pushing changes to GitHub. We'll also SSH into the VPS to show our setup.

**Requirements:**

* **Basic security:** We will create a secure way to log into the VPS and protect it from unwanted access. We will also use SSH keys which we learned how to use in class.
* **Website access control:** We will make it so a basic login is needed to view the website.
* **Automatic updates:** We will make the website on the VPS update automatically when we change the code on GitHub.

**Major technical solutions compared:**

* **Server Operating System (OS):** We will choose between Debian and Ubuntu Server based on which is easier to use and has good online help.
* **Web Server Software:** We will look at Nginx and Apache to see which is simpler to set up for our website.
* **VPS provider:** AWS, Gratis VPS, Digital Ocean

**Timeline:**

**Week 1:**

* Setting up the GitHub repository.
* Choosing the proper LICENSE.
* Set up the basics on the VPS, including security.
* Choosing the right VPS provider.
* Figuring what choices to make

**Week 2:**

* Get the website running on the VPS Provider with the SSH login requirement.

**Week 3:**

* Make the website update automatically from GitHub and prepare to show it.
* Prepare our presentation

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