

Keerthi Weekly Reports

Week 1

	Date	Tasks	Next Week
1	09/16/24	-	
2	09/17/24	Discussion With Team and The Advisor	Revision of Linux
3	09/18/24	Presentation in class	
4	09/19/24	Downloaded the ISO file for Ubuntu 24 and set it up in a virtual machine	
5	09/20/24		
6	09/21/24		
7	09/22/24		

Week 2

	Date	Tasks	Next Week
1	09/23/24	Installation of WSL	
2	09/24/24	I have dual-booted the operating system on both Windows and Linux and we had team meeting with the advisor and discussed about the progress on our project	Learning About The Tools and working on those tools
3	09/25/24	Go through the Linux commands	
4	09/26/24	learned new topics such as hypervisor, Docker, and Kubernetes.	

5	09/27/24	learned how Docker and Kubernetes works for our project.	
6	09/28/24	-	
7	09/29/24	-	

Week 3

	Date	Tasks	Next Week
1	09/30/24	-	
2	10/1/24	I used NVIDIA CUDA and a GPU simulator to emulate two GPUs.	
3	10/2/24	Worked on Jira and Confluence	
4	10/3/24	—	
5	10/4/24	-	
6	10/5/24	-	
7	10-/6/24	-	

Week 4

	Date	Tasks	Next Week
1	10/7/24	-	
2	10/8/24	We have developed a Flask-based authentication application	
3	10/9/24	Focusing on enhancing the user interface for upcoming upgrades. Need to establish a connection to Jupyter Notebook upon logging into the application.	
4	10/10/24	—	
5	10/11/24	Installed Nvidia container toolkit	

6	10/12/24	Focusing on Jupyter hub for the user experience	
7	10/13/24	-	Need to learn more about Jupyter hub and need to know how to connect two systems to use

	Date	Tasks	Next Week
1	10/14/24	Worked on jupyterhub	
2	10/15/24	Worked on Setting up Jupyter hub	
3	10/16/24	-	
4	10/17/24	set up and deployed Jupyter Hub inside a container.	
5	10/18/24	We have also experimented with different containers using various images, but encountered an issue where the GPU is not gaining access.	
6	10/19/24	-	
7	10/20/24	-	

	Date	Tasks	Next Week
1	10/21/24	-	
2	10/22/24	-	
3	10/23/24	We had meeting with advisor	
4	10/24/24	We configured a container on a shared network, enabling multiple users to access JupyterHub without needing authorization.	

5	10/25/24	working with kubernetes for user management, resource allocation.	
6	10/26/24	Looked into how Docker and Kubernetes work together to increase resources.	
7	10/27/24	-	Should work on load-balancing

	Date	Tasks	Next Week	
1	10/28/24	-		
2	10/29/24	-		
3	10/30/24	Working on deployment of jupyter hub on kubernetes	Set up Kubernetes cluster and install Helm for deployment.	
4	10/31/24	Install and configured kubectl to connect with kubernetes cluster		
5	11/1/24	Identified settings need for jupyterhub deployment such as authentication.		
6	11/2/24	Reviewed examples of config.yaml for smooth setup	Complete <code>config.yaml</code> settings and use Helm to deploy Jupyter Hub.	
7	11/3/24	-	Enable access to JupyterHub and test user login and notebook creation.	

	Date	Tasks	Next Week
1	10/4/24	-	
2	10/5/24	-	
3	10/6/24	setting up the github	
4	10/7/24	working on the deployment of jupyterhub	

5	11/8/24	Set up Kubernetes cluster and install Helm for deployment		
6	11/9/24	Working on access to jupyterhub and <code>config.yaml</code> settings and use Helm to deploy Jupyter Hub.		
7	11/10/24	-	Enable access to JupyterHub and test user login .	

	Date	Tasks	Next Week
1	11/11/24	Set up Kubernetes for deploying JupyterHub with a custom Flask-based login UI for user authentication	
2	11/12/24	-	
3	11/13/24	Met with an advisor on Google Meet to discuss updates and receive suggestions.	
4	11/14/24	Worked on integrating JupyterHub with Kubernetes, testing it for multi-user environments, and ensuring proper resource separation and efficient task distribution	
5	11/15/24	-	
6	11/16/24	Worked on verifying the Kubernetes configuration to ensure that JupyterHub is set up correctly and is ready for user testing.	
7	11/17/24	working on adding a feature that will automatically create user accounts in JupyterHub, making it easier to generate tokens and give users quick access after they log in.	implementation of automatic user account creation in Jupyter Hub.

	Date	Tasks	Next Week
1	11/18/24	-	
2	11/19/24	-	
3	11/20/24	Met with an advisor on Google Meet to discuss updates and receive suggestions.	
4	11/21/24	Worked on report	
5	11/22/24	Worked on report	
6	11/23/24	Worked on report	
7	11/24/24	Worked on report	

	Date	Tasks	Next Week
1	11/25/24	-	
2	11/26/24	Met with an advisor to discuss updates and receive suggestions	
3	11/27/24	-	
4	11/28/24	Working on report and presentation	
5	11/29/24	Working on report and presentation	
6	11/30/24	Working on report and presentation	
7	12/1/25	Working on report and presentation	

	Date	Tasks	Next Week
1	12/2/24	-	

2	12/3/24	Met with an advisor to discuss updates and receive suggestions	
3	12/4/24	-	
4	12/5/24	Working on report and presentation	
5	12/6/24	Working on report and presentation	
6	12/7/24	-	
7	12/8/25	Working on report and presentation	