

ජාතික ආඩුනිකත්ව සහ කාර්මික ප්‍රහැණු කිරීම් අධිකාරිය

තොසිය පයිලුවුන් කෙත්තොයිල් පයිර්සි අනිකාර්සපේ

NATIONAL APPRENTICE AND INDUSTRIAL TRAINING AUTHORITY



DAILY DIARY
UNDERGRADUATE / DIPLOMA
INDUSTRIAL TRAINING

APPRENTICE'S DAILY DIARY

Name: **M K M Ahamed**

Apprentice's Private Address: **No 32, Danagama rd, Mahawattha, Mawanella.**

Contact Phone Number: **0774804214**

Category: **Information Technology**

Field/Trade of Training: **Software Engineering**

Registration Number given by the University/Institute/College: **19/IT/IT/455**

Registration Number given by the NAITA: **DIP/ITUM/00192/2023**

Name of Training Establishment: (1.) hSenid Mobile Solutions (Pvt) Ltd.

Period of Training From: 14/02/2023 To: 14/08/2023

(2.)

Name and Address Of Establishment	Workshops/ Worksites	Period		Signature of Officer In Charge (With Rubber Stamp)	Designation
		From	To		
hSenid Mobile Solutions (Pvt) Ltd.	Office of the company	14/02/2023	14/08/2023		Manager - Delivery Assurance

WEEK NO : 01

FOR THE WEEK ENDING				TRAINING LOCATION
Sunday	19/02/2023	Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Saturday	18/02/2023	Monday	13/02/2023	-----
Sunday	19/02/2023	Tuesday	14/02/2023	<ul style="list-style-type: none"> □ On the first day, an email was set up, an intro session with the supervisor was conducted, and tasks related to Ubuntu familiarization were assigned.
Saturday	17/02/2023	Wednesday	15/02/2023	<ul style="list-style-type: none"> □ Completed a Linux tutorial
Sunday	18/02/2023	Thursday	16/02/2023	<ul style="list-style-type: none"> □ Completed a Bash tutorial
Saturday	19/02/2023	Friday	17/02/2023	<ul style="list-style-type: none"> □ Finished the Linux command assignments.
Sunday	19/02/2023			<ul style="list-style-type: none"> □ Weekend
Saturday	18/02/2023			<ul style="list-style-type: none"> □ Weekend

WEEK NO : 02

FOR THE WEEK ENDING				TRAINING LOCATION	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Saturday	Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT		
26/02/2023		20/02/2023	Completed the Linux command assignments, and the task was submitted. Xmind and Java were installed from binary.		
		21/02/2023	Studied Linux commands regarding system-level, network-related, directory manipulation, and file manipulation. A mind map for Linux commands was also created.		
		22/02/2023	Learned the usage of the vi editor, and researched some network-related Linux commands. A task related to MySQL, such as creating a database and table, was completed. Additionally, a CSV file was created using a script and inserted into the table.		
		23/02/2023	Prepared shell scripts and corresponding CSV files for given scenarios. Studied IP tables in Linux using ports.		
		24/02/2023	Installed and configured MongoDB through binary installation, which encountered several issues.		
		25/02/2023	Weekend		
		26/02/2023	Weekend		

WEEK NO : 03

FOR THE WEEK ENDING			TRAINING LOCATION	
Sunday 05/03/2023			Office of the Company	
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT		
Monday	27/02/2023	<ul style="list-style-type: none"> □ Developed familiarity with Git commands, such as checking out the project, tagging, branching, getting differences between two tags, committing and pushing, merging, resolving conflicts, tagging, and cherry-picking. Studied Git commits and commit message standards. 		
Tuesday	28/02/2023	<ul style="list-style-type: none"> □ Read the Docker book PDF to gain insights about Docker. 		
Wednesday	01/03/2023	<ul style="list-style-type: none"> □ Revisited the Docker book PDF for further understanding of Docker. 		
Thursday	02/03/2023	<ul style="list-style-type: none"> □ Hands-on experience was gained in training a GitLab repo using Git commands. 		
Friday	03/03/2023	<ul style="list-style-type: none"> □ Hands-on experience was gained by revising Docker commands. 		
Saturday	04/03/2023	<ul style="list-style-type: none"> □ Weekend 		
Sunday	05/03/2023	<ul style="list-style-type: none"> □ Weekend 		

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

Assignment 1 = Linux Command

1. Create a new user (preferably using your name as login name)

```
aashik@aashik-HP-ProBook-450-G5:~$ sudo useradd shthaab
[sudo] password for aashik:
```

2. Reset password of user

```
aashik@aashik-HP-ProBook-450-G5:~$ sudo passwd shthaab
New password:
Re-type new password:
passwd: password updated successfully
```

3. Create a directory called my_group at home and give permissions to user and group

```
aashik@aashik-HP-ProBook-450-G5:~$ mkdir my_group
aashik@aashik-HP-ProBook-450-G5:~$ chmod go+rwx my_group
```

4. Create a directory called my_user at home and give permissions to user only

```
aashik@aashik-HP-ProBook-450-G5:~$ mkdir my_user
aashik@aashik-HP-ProBook-450-G5:~$ sudo chown -R aashik: my_user
```

5. How many network interfaces your computer has?

o 3 Interfaces

```
aashik@aashik-HP-ProBook-450-G5:~$ ifconfig -l
Kernel Interface Table
eth0      MTU:1500 QoS:0 Queueingdisc:pfifo_fast
eth0      RX-OK:593846 RX-ERR:0 RX-DP:0 RX-OVR:0
eth0      TX-OK:593846 TX-ERR:0 TX-DP:0 TX-OVR:0
eth0      Flg:BROADCAST,MULTICAST,UP,LOWER_UP
lo       MTU:65536 QoS:0 Queueingdisc:pfifo_fast
lo       RX-OK:48857 RX-ERR:0 RX-DP:0 RX-OVR:0
lo       TX-OK:48857 TX-ERR:0 TX-DP:0 TX-OVR:0
lo       Flg:LOOPBACK,UP,LOWER_UP
```

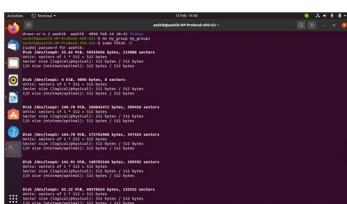
6. Install xmind on your desktop without using yum.

```
sudo apt update
```

15. Rename your directory my_group to my_group1

```
aashik@aashik-HP-ProBook-450-G5:~$ mv my_group my_group1
```

16. How you view partition information?



How you get total sizes of sub directories inside /var using single command?

17. How you get total sizes of sub directories inside /var using single command?

```
sudo du /var/ -h
```

18. Change system date to yesterday using command line

```
date -s "14 FEB 2023 14:45:00"
```

19. Remove directory my_group

```
aashik@aashik-HP-ProBook-450-G5:~$ rm -r my_group1
```

```
sudo apt install snapd
```

```
sudo snap install xmind
```

7. How you get last 5 entries of /var/log/messages

```
tail -5 var/log/messages
```

8. How you get first 5 entries of /var/log/messages

```
head -5 var/log/messages
```

9. How you get log entries of /var/log/messages which printed within today

```
sudo grep -E "2023-02-15" var/log/messages
```

10. How many lines in /var/log/messages?

```
wc -l var/log/messages
```

11. How many unique lines in /var/log/messages?

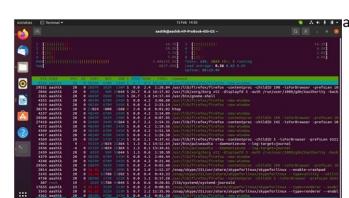
```
grep -i "unique line" var/log/messages
```

20. What are the following utilizations of your desktop

a. CPU

b. Memory

c. Disk

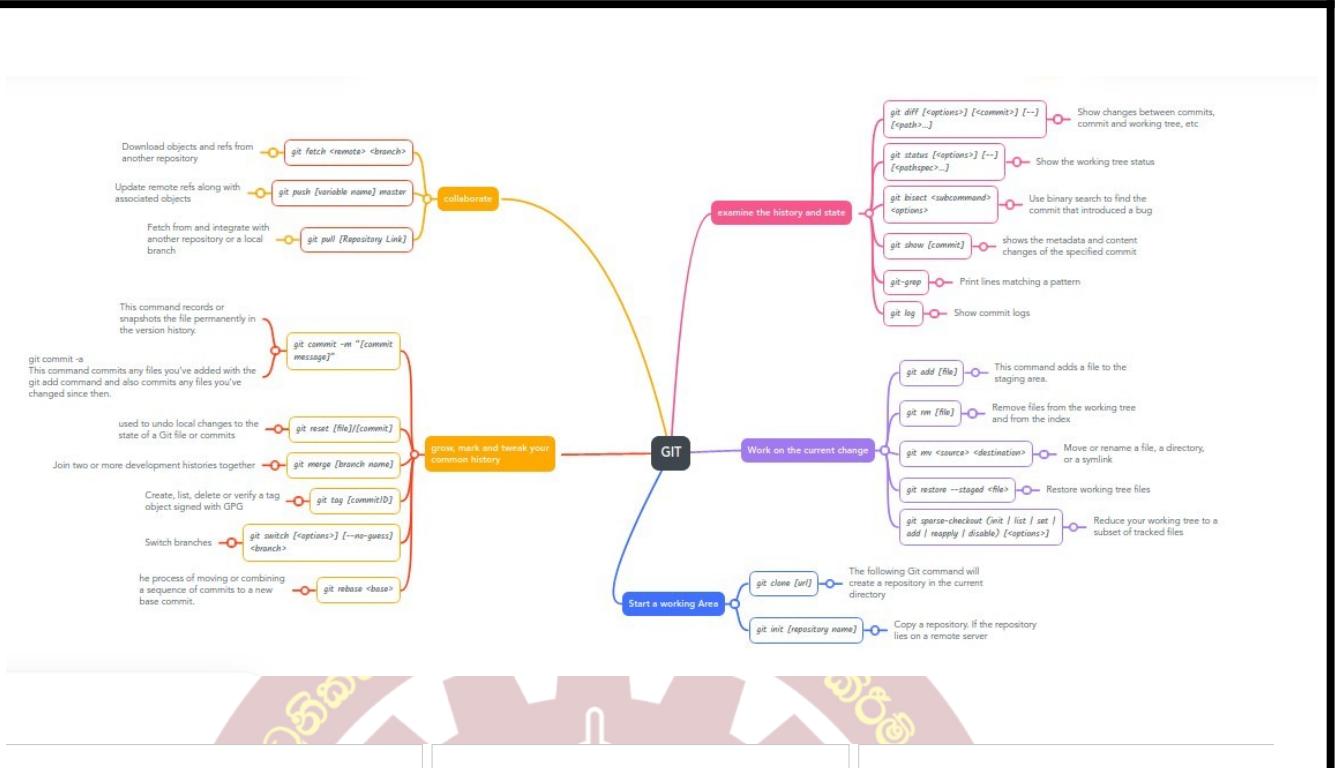


b.

```
aashik@aashik-HP-ProBook-450-G5:~$ free
total        used        free      shared  buff/cache   available
Mem:   16218880  3959568  8262088    601608  6295688  1227500
Swap:  8600568          0  8600568
```

```
aashik@aashik-HP-ProBook-450-G5:~$ df -h
Filesystem      Size  Used Avail Mounted on
udev            8.3G   0  8.3G  /dev
tmpfs           1.7G  2.3M  1.7G  /run
/dev/sdb         1.1G  1.1G  0     /snap/core18/2679
tmpfs           8.4G  3.3M  8.4G  /dev/shm
tmpfs           3.9G  4.1M  3.9G  /sys/fs/cgroup
tmpfs           8.4G  0  8.4G  /sys/firmware
/dev/loop0       59M   59M  0  100% /snap/core18/2679
/dev/loop3       1.3G  1.3G  0  100% /snap/core18/2848-101
/dev/loop1       1.3G  1.3G  0  100% /snap/harfbuzz/5
/dev/loop2       2.6M  2.6M  0  100% /snap/gnome-characters/38-2084/99
/dev/loop5       69M   69M  0  100% /snap/gtk-common-themes/1519
/dev/loop6       66M   66M  0  100% /snap/core2d/1329
/dev/loop8       67M   67M  0  100% /snap/core2d/1827
/dev/loop9       2.6M  2.6M  0  100% /snap/gnome-characters/1535
/dev/loop10      53M   53M  0  100% /snap/snap-store/558
/dev/loop11      5.1G  5.1G  1.1G  /boot/efi
/dev/sdb          394G  683M  375G  /home
tmpfs           492M  4.1M  492M  /run
tmpfs           1.7G  8.2M  1.7G  /run/user/1000
/dev/loop12      53M   53M  0  100% /snap/snap-store/24
/dev/loop13      1.3G  1.3G  0  100% /snap/nextcloud/8357
aashik@aashik-HP-ProBook-450-G5:~$
```

End of document



IP TABLES

1. What are the iptables in linux

- In Linux, "iptables" is a command-line tool that allows system administrators to configure the built-in firewall (netfilter) in the Linux kernel. It provides a way to define rules for incoming and outgoing network traffic based on various criteria such as IP addresses, protocols, ports, and more.

The iptables command has several options and subcommands that can be used to manage the firewall. Some of the common subcommands are:

- "-A": add a new rule to the firewall
- "-D": delete an existing rule from the firewall
- "-L": list the current rules in the firewall
- "-F": flush all the rules in the firewall
- "-P": set the default policy for a chain (ACCEPT, DROP, or REJECT)

To view the current rules in the firewall, you can use the following command:
`iptables -L`

This command lists all the rules in the firewall for each chain. Iptables can be a complex tool to use and requires a good understanding of networking concepts and protocols. It is recommended to use iptables with caution and consult the documentation or a network security professional before making any changes to the firewall configuration.

2. Enabling Connections on HTTP, SSH, and SSL Port

Next, we want http (port 80), https (port 443), and ssh (port 22) connections to work as usual. To do this, we need to specify the protocol (-p) and the corresponding port (-dport). You can execute these commands one by one:
`sudo iptables -A INPUT -p tcp --dport 22 -j ACCEPT`
`sudo iptables -A INPUT -p tcp --dport 80 -j ACCEPT`
`sudo iptables -A INPUT -p tcp --dport 443 -j ACCEPT`

For example, to block incoming traffic on port 22 (SSH), you can use the following iptables command:
`sudo iptables -A INPUT -p tcp --dport 22 -j DROP`

3) Within that block the tomcat port using iptables
To block the Tomcat port (8080 by default) using iptables, you can use the following command:
`sudo iptables -A INPUT -p tcp --dport 8080 -j DROP`

In this command, "-A INPUT" specifies that the rule should be added to the INPUT chain, which handles incoming traffic. "-p tcp" specifies the protocol as TCP. "--dport 8080" specifies the destination port as 8080, which is the default port for Tomcat. "-j DROP" specifies that any incoming packets matching this rule should be dropped (discarded) instead of being forwarded to the intended destination.

The screenshot shows the terminal output of the iptables command and the resulting iptables -L output showing the new rule added to the INPUT chain.

Summary of Feb 14 – Feb 28

During this two-week period, the focus was placed on the acquisition of knowledge and skills related to Linux, scripting, command-line operations, and various tools. The first days involved the setup of an email and the conducting of an introductory session with the supervisor, followed by tasks related to familiarizing oneself with Ubuntu.

Linux tutorials and a Bash tutorial were attended, resulting in an enhanced understanding of the operating system and scripting capabilities. Assignments on Linux commands, including system-level operations, network-related tasks, and file/directory manipulation, were successfully completed.

Additional tasks included the installation of XMind and Java from binary, the learning of the vi editor, the research of network-related Linux commands, and the working with MySQL. A task involving the creation of a database, table, and the insertion of data from a CSV file was accomplished. Shell scripts and corresponding CSV files were prepared for specific scenarios.

IP tables in Linux, with a focus on ports, were studied, as well as the installation and configuration of MongoDB, although several issues were encountered. Knowledge of Git commands was developed, covering various actions such as project checking out, tagging, branching, comparing differences, committing and pushing changes, merging, resolving conflicts, and cherry-picking commits. Standards for Git commits and commit messages were also explored.

The period concluded with the reading of a Docker book in order to gain insights into containerization technology.

Overall, the two weeks were comprised of a comprehensive exploration of Linux, scripting, command-line operations, database management (MySQL and MongoDB), version control with Git, and containerization with Docker.



SIGNATURE OF TRAINEE

REMARKS AND CERTIFICATION BY THE ENGINEER / T.O



SIGNATURE

WEEK NO : 04

FOR THE WEEK ENDING					TRAINING LOCATION
Sunday 12/03/2023					Office of the Company
Day		Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT		
		Monday 06/03/2023	<ul style="list-style-type: none"> □ Madin Full Moon Poya Day 		
		Tuesday 07/03/2023	<ul style="list-style-type: none"> □ The learning of Docker Compose was started. 		
		Wednesday 08/03/2023	<ul style="list-style-type: none"> □ Various tasks, including system-level command studies, network-related command research, exploration of directory and file manipulation, and the creation of a mind map for Linux commands, were completed. 		
		Thursday 09/03/2023	<ul style="list-style-type: none"> □ The focus was on learning how to use the vi editor, studying additional network-related Linux commands, and completing a MySQL task involving database and table creation. A CSV file was also generated using a provided script and inserted into a table. 		
		Friday 10/03/2023	<ul style="list-style-type: none"> □ Shell scripts were prepared for given scenarios, along with corresponding CSV files. Additionally, knowledge on IP tables in Linux, specifically their usage with ports, was acquired. 		
Saturday		11/03/2023	<ul style="list-style-type: none"> □ Weekend 		
Sunday	12/03/2023		<ul style="list-style-type: none"> □ Weekend 		

WEEK NO : 05

FOR THE WEEK ENDING					TRAINING LOCATION		
Sunday 19/03/2023					Office of the Company		
Sunday	Satur day	Friday	Thursday	Wednesday	Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
19/03/2023	18/03/2023			16/03/2023	14/03/2023	13/03/2023	<ul style="list-style-type: none"> □ Knowledge about Docker volumes, their types, and uses was acquired.
				17/03/2023			<ul style="list-style-type: none"> □ Research was conducted on how runners work and their tasks.
							<ul style="list-style-type: none"> □ Knowledge about creating a self-hosted GitLab runner was gained, and a self-hosted GitLab runner was created on a local machine. A temporary project was pushed to GitLab, and a .gitlab-ci.yml file was created for the project. Some errors were encountered while attempting to run this project using the self-hosted runner, which were being resolved.
							<ul style="list-style-type: none"> □ Basic Docker-related Linux commands were studied in detail. Additionally, a GitLab runner was deployed in a Docker container on a remote server. Access tokens for GitLab were created, and an existing .gitlab-ci.yml file for a project with test, build, and deploy stages was cloned.
							<ul style="list-style-type: none"> □ A .gitlab-ci.yml file for the testing and build stages was created. The pipeline was executed, and errors related to the pipeline were identified.
							<ul style="list-style-type: none"> □ Weekend
							<ul style="list-style-type: none"> □ Weekend

WEEK NO : 06

FOR THE WEEK ENDING					TRAINING LOCATION		
Sunday	Saturday	Friday	Thursday	Wednesday	Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
26/03/2023	25/03/2023	24/03/2023	23/03/2023	22/03/2023	Monday	20/03/2023	<ul style="list-style-type: none"> □ A pipeline for a demo project was created by following a YouTube video, and two jobs were successfully completed.
					Tuesday	21/03/2023	<ul style="list-style-type: none"> □ Further research on GitLab keywords and their usage with examples was conducted. Errors were fixed, and a JavaScript code, along with its .gitlab-ci.yml file, was created. Three pipeline jobs (Test, Build, and Deploy) were created for the project and deployed on the server.
					Wednesday	22/03/2023	<ul style="list-style-type: none"> □ The pipeline was run for a demo project. Additional research on GitLab keywords and their reasons for usage was conducted.
					Thursday	23/03/2023	<ul style="list-style-type: none"> □ The pipeline for a new program designed for earlier tasks was started. Information on automating the task was gathered.
					Friday	24/03/2023	<ul style="list-style-type: none"> □ The build stage of the pipeline was initiated. Demo scripts were viewed, and a script was created. Bugs were identified and researched.
					Saturday	25/03/2023	<ul style="list-style-type: none"> □ Weekend
					Sunday	26/03/2023	<ul style="list-style-type: none"> □ Weekend

WEEK NO : 07

FOR THE WEEK ENDING					TRAINING LOCATION		
Sunday	Satur day	Friday	Thursday	Wednesday	Day	BRIEF DESCRIPTION OF THE WORK CARRIED OUT	
02/04/2023	01/04/2023	31/03/2023	30/03/2023	29/03/2023	28/03/2023	27/03/2023	Dat e
							<ul style="list-style-type: none"> □ Bugs were fixed, and the build stage was successfully executed.
							<ul style="list-style-type: none"> □ The deploy stage of the pipeline was started.
							<ul style="list-style-type: none"> □ Bugs were discovered and researched, and then fixed. The project was successfully deployed.
							<ul style="list-style-type: none"> □ A demo showcasing the pipeline's workflow was presented to the supervisor. The introduction to a new project, "sd-wan-manager," was given, and the creation of the pipeline was requested.
							<ul style="list-style-type: none"> □ The project files and readme were referred to, and a rough idea about the project was obtained.
							<ul style="list-style-type: none"> □ Weekend
							<ul style="list-style-type: none"> □ Weekend

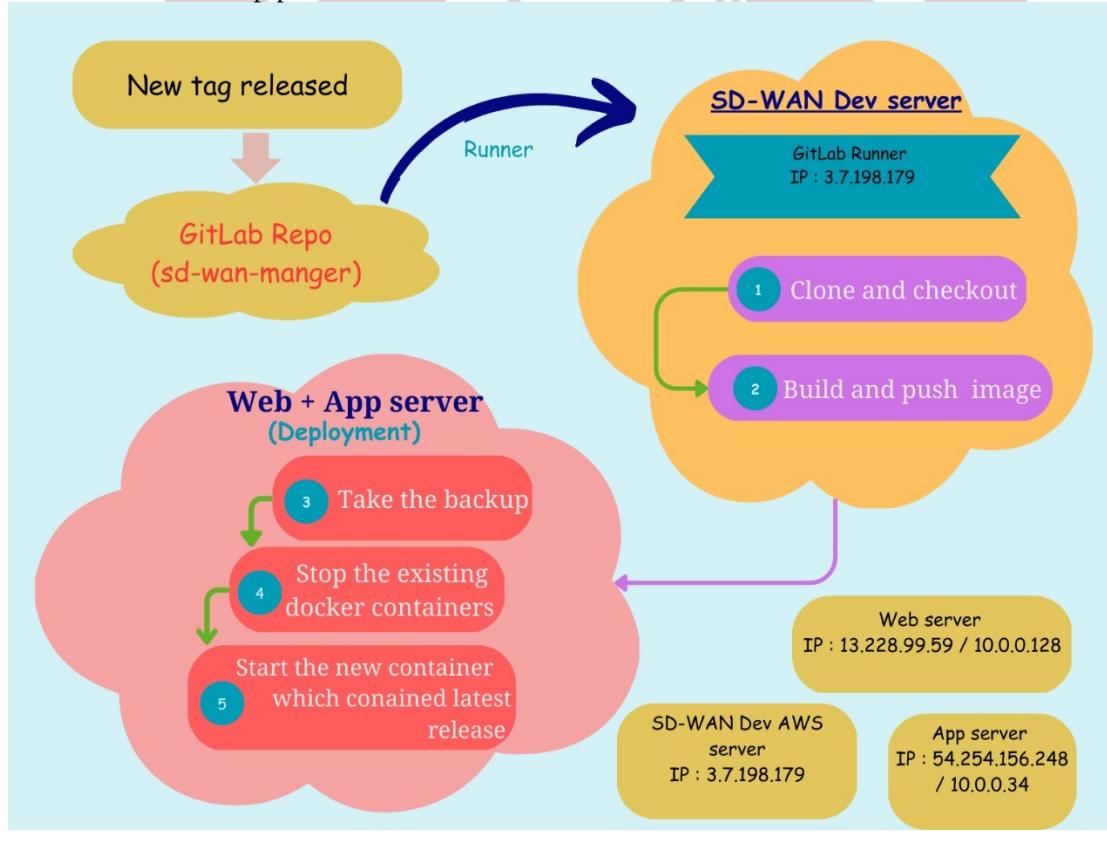
**DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERD AND HOW SOLVED
ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE**

Generated CSV file through shell script file

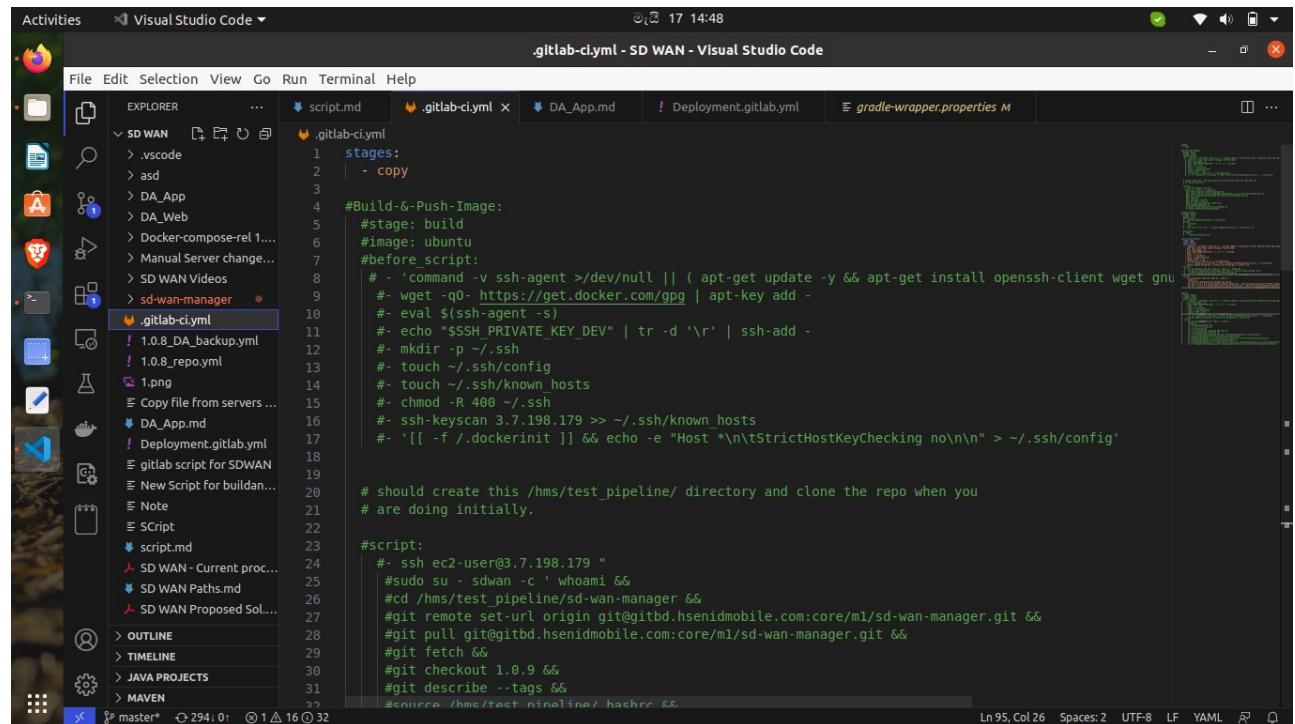
```

Activities Terminal 23 15:00
root@aashik-HP-ProBook-450-G5: /usr/local/mysql
+-----+-----+-----+-----+-----+-----+-----+
| 7752999968 | 100 | *100*1 | component-test-1164 | 16 | 2017-04-03 16:47:44 |
| 7752999969 | 100 | *100*1 | component-test-11067 | 23 | 2017-04-03 16:47:44 |
| 7752999970 | 100 | *100*1 | component-test-2647 | 39 | 2017-04-03 16:47:44 |
| 7752999971 | 100 | *100*1 | component-test-28874 | 17 | 2017-04-03 16:47:44 |
| 7752999972 | 100 | *100*1 | component-test-1404 | 46 | 2017-04-03 16:47:44 |
| 7752999973 | 100 | *100*1 | component-test-20166 | 41 | 2017-04-03 16:47:44 |
| 7752999974 | 100 | *100*1 | component-test-31258 | 32 | 2017-04-03 16:47:44 |
| 7752999975 | 100 | *100*1 | component-test-17903 | 25 | 2017-04-03 16:47:44 |
| 7752999976 | 100 | *100*1 | component-test-15735 | 17 | 2017-04-03 16:47:44 |
| 7752999977 | 100 | *100*1 | component-test-26148 | 18 | 2017-04-03 16:47:44 |
| 7752999978 | 100 | *100*1 | component-test-14278 | 46 | 2017-04-03 16:47:44 |
| 7752999979 | 100 | *100*1 | component-test-10741 | 10 | 2017-04-03 16:47:44 |
| 7752999980 | 100 | *100*1 | component-test-14754 | 22 | 2017-04-03 16:47:44 |
| 7752999981 | 100 | *100*1 | component-test-3564 | 21 | 2017-04-03 16:47:44 |
| 7752999982 | 100 | *100*1 | component-test-25015 | 44 | 2017-04-03 16:47:44 |
| 7752999983 | 100 | *100*1 | component-test-9013 | 37 | 2017-04-03 16:47:44 |
| 7752999984 | 100 | *100*1 | component-test-24257 | 13 | 2017-04-03 16:47:44 |
| 7752999985 | 100 | *100*1 | component-test-2876 | 28 | 2017-04-03 16:47:44 |
| 7752999986 | 100 | *100*1 | component-test-31541 | 29 | 2017-04-03 16:47:44 |
| 7752999987 | 100 | *100*1 | component-test-32110 | 6 | 2017-04-03 16:47:44 |
| 7752999988 | 100 | *100*1 | component-test-11330 | 46 | 2017-04-03 16:47:44 |
| 7752999989 | 100 | *100*1 | component-test-30511 | 48 | 2017-04-03 16:47:44 |
| 7752999990 | 100 | *100*1 | component-test-10128 | 17 | 2017-04-03 16:47:44 |
| 7752999991 | 100 | *100*1 | component-test-2366 | 39 | 2017-04-03 16:47:44 |
| 7752999992 | 100 | *100*1 | component-test-17122 | 41 | 2017-04-03 16:47:44 |
| 7752999993 | 100 | *100*1 | component-test-5594 | 38 | 2017-04-03 16:47:44 |
| 7752999994 | 100 | *100*1 | component-test-207 | 15 | 2017-04-03 16:47:44 |
| 7752999995 | 100 | *100*1 | component-test-28567 | 44 | 2017-04-03 16:47:44 |
| 7752999996 | 100 | *100*1 | component-test-21473 | 22 | 2017-04-03 16:47:44 |
| 7752999997 | 100 | *100*1 | component-test-17941 | 30 | 2017-04-03 16:47:44 |
| 7752999998 | 100 | *100*1 | component-test-1808 | 0 | 2017-04-03 16:47:44 |
| 7752999999 | 100 | *100*1 | component-test-30628 | 22 | 2017-04-03 16:47:44 |
| 77521000000 | 100 | *100*1 | component-test-26043 | 49 | 2017-04-03 16:47:44 |
| 77521000001 | 100 | *100*1 | component-test-3780 | 42 | 2017-04-03 16:47:44 |
+-----+-----+-----+-----+-----+-----+
999999 rows in set (1.53 sec)
mysql> 
```

Draft idea to build a pipeline



This was our first approach to build the code.



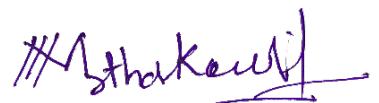
```
stages:
  - copy
  - build
  - image: ubuntu
  - before_script:
    - command -v ssh-agent >/dev/null || ( apt-get update -y && apt-get install openssh-client wget gnu
    - wget -qO- https://get.docker.com/gpg | apt-key add -
    - eval $(ssh-agent -s)
    - echo "SSH PRIVATE_KEY_DEV" | tr -d '\r' | ssh-add -
    - mkdir -p ~/.ssh
    - touch ~/.ssh/config
    - touch ~/.ssh/known_hosts
    - chmod -R 400 ~/.ssh
    - ssh-keyscan 3.7.198.179 > ~/.ssh/known_hosts
    - '['[ -f /.dockerinit ]]' && echo -e "Host *\n\tStrictHostKeyChecking no\n\n" > ~/.ssh/config'
  - script:
    - ssh ec2-user@3.7.198.179 "
      sudo su - sdwan -c ' whoami &&
      cd /hms/test_pipeline/sd-wan-manager &&
      git remote set-url origin git@gitbd.hsenidmobile.com:core/m1/sd-wan-manager.git &&
      git pull git@gitbd.hsenidmobile.com:core/m1/sd-wan-manager.git &&
      git fetch &&
      git checkout 1.0.9 &&
      git describe --tags &&
      source /hmc/test_pipeline/.bashrc &&
```

Summary for Mar 01- Mar 31

During this period, the focus was on Docker, GitLab, and pipeline automation. Tasks were carried out, including the revisiting of the Docker book, gaining hands-on experience with GitLab using Git commands, revising Docker commands, exploring Docker Compose, and studying system-level and network-related Linux commands. The vi editor was learned, and a MySQL task involving database creation and CSV file insertion was completed.

Shell scripts and CSV files were prepared, knowledge on IP tables was acquired, and Docker volumes were explored. The creation of a self-hosted GitLab runner, deployment of a GitLab runner in a Docker container, and research on GitLab keywords were conducted. Pipelines were created for demo projects and a new program, and errors were fixed.

Progress was marked by the successful execution of pipeline stages, deployment of projects, and a demo presentation to the supervisor. An introduction to the "sd-wan-manager" project was given, and a request for pipeline creation was made.



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WEEK NO : 08

FOR THE WEEK ENDING				TRAINING LOCATION
Sunday 09/04/2023				Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT		
Monday	03/04/2023	<ul style="list-style-type: none"> □ An Azure server was created, and Mongo and MongoJS containers were deployed. The output was obtained through curl. A pipeline was created to automate the building and deployment of the containers. 		
Tuesday	04/04/2023	<ul style="list-style-type: none"> □ The SD-WAN manager's readme was read to understand the project's process. 		
Wednesday	05/04/2023	<ul style="list-style-type: none"> □ Bak Full moon Poya day 		
Thursday	06/04/2023	<ul style="list-style-type: none"> □ The pipeline diagram for the project was reviewed and updated according to the workflow. Research was conducted on best practices for pipeline implementation. Discussions were held with team members regarding the upcoming tasks and milestones. 		
Friday	07/04/2023	<ul style="list-style-type: none"> □ Further discussions took place with the supervisor to refine the pipeline design and address any concerns or improvements. Additional research was conducted to explore potential optimizations for the pipeline. Work was done on documenting the pipeline structure and its various stages. 		
Saturday	08/04/2023	<ul style="list-style-type: none"> □ Weekend 		
Sunday	09/04/2023	<ul style="list-style-type: none"> □ Weekend 		

WEEK NO : 09

FOR THE WEEK ENDING					TRAINING LOCATION		
					Sunday 16/04/2023		Office of the Company
Sunday	Satur day	Friday	Thursday	Wednesday	Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
16/04/2023	15/04/2023	14/04/2023	13/04/2023	12/04/2023	11/04/2023	10/04/2023	<ul style="list-style-type: none"> □ LEAVE
							<ul style="list-style-type: none"> □ LEAVE
							<ul style="list-style-type: none"> □ Company Vacation for Avrudu
							<ul style="list-style-type: none"> □ Sinhala and Tamil New Year's Eve
							<ul style="list-style-type: none"> □ Sinhala and Tamil New Year's Day
							<ul style="list-style-type: none"> □ Weekend
							<ul style="list-style-type: none"> □ Weekend

WEEK NO : 10

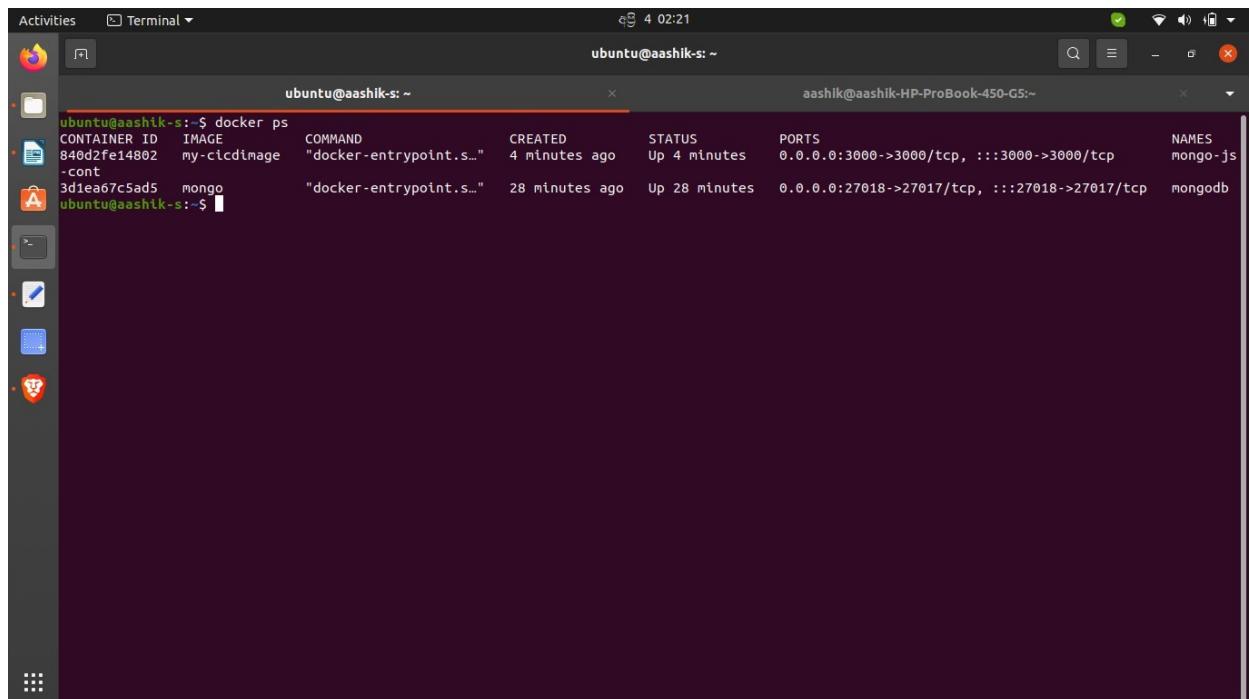
FOR THE WEEK ENDING					TRAINING LOCATION		
Sunday	Monday	Tuesday	Wednesday	Thursday	Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
23/04/2023							<ul style="list-style-type: none"> □ Discussions were held with the supervisor to update the diagram.
							<ul style="list-style-type: none"> □ Discussions were held with the supervisor to update the diagram.
							<ul style="list-style-type: none"> □ Discussions were held with the supervisor to update the diagram.
							<ul style="list-style-type: none"> □ The diagram illustrating the pipeline process was created and updated.
							<ul style="list-style-type: none"> □ Further discussions were held with the supervisor regarding the pipeline.
							<ul style="list-style-type: none"> □ Weekend
							<ul style="list-style-type: none"> □ Weekend

WEEK NO : 11

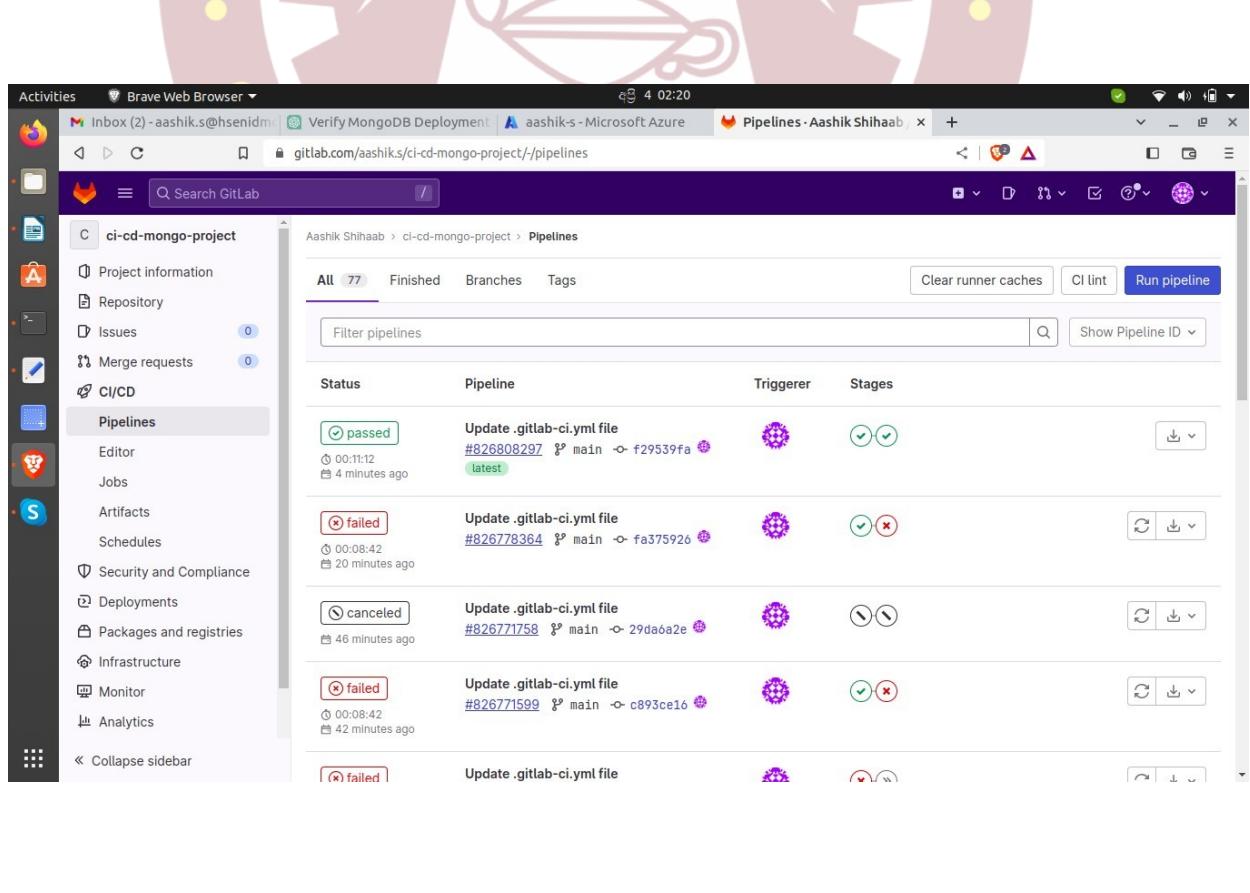
FOR THE WEEK ENDING				TRAINING LOCATION
Sunday	30/04/2023	BRIEF DESCRIPTION OF THE WORK CARRIED OUT		
Day	Date	Monday	Tuesday	Wednesday
				<ul style="list-style-type: none"> □ Attempts were initially made to manually build and push the image to the server. Dependency errors were encountered from the developer side.
				<ul style="list-style-type: none"> □ A meeting with the supervisor was conducted to discuss and resolve the dependency errors. The images were successfully built and manually pushed to the Docker registry on the server.
				<ul style="list-style-type: none"> □ Initiation of the work on the build stage pipeline script for the SD-WAN-Manager project was done. Some errors were addressed and fixed independently.
				<ul style="list-style-type: none"> □ Discussions were held with the supervisor regarding build image issues. Attendance was made at a half-day Avurudu event.
				<ul style="list-style-type: none"> □ All errors were fixed, and successful completion of the build stage pipeline script was achieved.
Saturday				<ul style="list-style-type: none"> □ Weekend
Sunday	30/04/2023			<ul style="list-style-type: none"> □ Weekend

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

An Azure server was created, and Mongo and MongoJS containers were deployed. The output was obtained through curl. A pipeline was created to automate the building and deployment of the containers



```
Activities Terminal 4 02:21
ubuntu@aashik-s: ~
ubuntu@aashik-s:~$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
840d2fe14802 my-ci-cdimage "docker-entrypoint.s..." 4 minutes ago Up 4 minutes 0.0.0.0:3000->3000/tcp, :::3000->3000/tcp mongo-js
- cont
3d1ea67c5ad5 mongo "docker-entrypoint.s..." 28 minutes ago Up 28 minutes 0.0.0.0:27018->27017/tcp, :::27018->27017/tcp mongodb
ubuntu@aashik-s:~$
```



The screenshot shows a web browser window with the URL gitlab.com/aashik.s/cl-cd-mongo-project/-/pipelines. The left sidebar is for the project "ci-cd-mongo-project" and includes sections for Project information, Repository, Issues, Merge requests, CI/CD, Pipelines, Editor, Jobs, Artifacts, Schedules, Security and Compliance, Deployments, Packages and registries, Infrastructure, Monitor, and Analytics. The main content area displays a list of pipelines for the user "Aashik Shihab". The table has columns for Status, Pipeline, Triggerer, and Stages.

Status	Pipeline	Triggerer	Stages
passed	Update .gitlab-ci.yml file #826808297 ➝ main -> f29539fa [latest]	gitlab CI	Passed
failed	Update .gitlab-ci.yml file #826778364 ➝ main -> fa375926	gitlab CI	Passed, Failed
canceled	Update .gitlab-ci.yml file #826771758 ➝ main -> 29da0a2e	gitlab CI	Canceled
failed	Update .gitlab-ci.yml file #826771599 ➝ main -> c893ce16	gitlab CI	Passed, Failed
failed	Update .gitlab-ci.yml file	gitlab CI	Failed

Activities Terminal 3 18:50
ubuntu@ip-172-31-18-235: ~

```
Usage of /:          99.5% of 14.47GB
Memory usage:      6%
Swap usage:        0%
Processes:         209
Users logged in:   1
IPv4 address for br-6f5b2f532070: 172.18.0.1
IPv4 address for br-81db15d45b28: 172.18.0.1
IPv4 address for docker0:    172.17.0.1
IPv4 address for ens5:     172.31.18.235

=> / is using 99.5% of 14.47GB
=> /hms is using 88.8% of 19.57GB

* Ubuntu Pro delivers the most comprehensive open source security and
  compliance features.

  https://ubuntu.com/aws/pro

70 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

New release '22.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Mon Apr  3 12:33:49 2023 from 123.231.121.189
ubuntu@ip-172-31-18-235:~$ docker ps
CONTAINER ID   IMAGE           COMMAND                  CREATED             STATUS              PORTS
 NAMES          mongo-...       "docker-...           29 minutes ago   Up 29 minutes   0.0.0.0:3001->3001/tcp, ...
 mongo-...       mongo           "docker-...           2 hours ago      Up 2 hours      0.0.0.0:27017->27017/tcp, ...
 /tcp           mongod          "/usr/bin/dumb-...
 d6fe8dd36587  gitlab/gitlab-runner:latest  "/usr/bin/dumb-...
 gitlab-runner
 ubuntu@ip-172-31-18-235:~$
```

Activities Brave Web Browser 3 18:48
Pipelines · Aashik Shihab · Inbox (1) - aashik.s@hsenidmu · How to post JSON using C... +

gitlab.com/aashik.s/ci-cd-mongo-project/-/pipelines

Aashik Shihab > ci-cd-mongo-project > Pipelines

All 61 Finished Branches Tags

Filter pipelines

Status	Pipeline	Triggerer	Stages
passed	Update docker-compose.yml #826254032 ➔ main -> 6dd63e09	latest	Passed
canceled	Update MongoDoc.js #826253192 ➔ main -> 242bd6d8		Canceled
failed	Update MongoDoc.js #826235491 ➔ main -> a8469cc7		Failed
failed	Update MongoDoc.js #826234844 ➔ main -> 7b1e06fa		Failed
(failed)	Update MongoDoc.js		Failed

Activities Terminal 4 03:07

ubuntu@aashik-s: ~ aashik@aashik-HP-ProBook-450-G5: ~

```
ubuntu@aa...:~ db.
db._proto_ db.constructor db.hasOwnProperty db.isPrototypeOf
db.getMongo db.getName db.toObject db.valueOf
db.runCommand db.adminCommand db.aggregate db.getCollectionNames
db.getCollection db.dropDatabase db.createUser db.getSiblingDB
db.changeUserPassword db.logout db.dropUser db.updateUser
db.auth db.grantRolesToUser db.createRole db.createView
db.getUsers db.createCollection db.revokeRolesFromUser db.dropAllUsers
db.createRole db.updateRole db.createEncryptedCollection db.getUse
db.grantRolesToRole db.getRoles db.dropRole db.dropAllRoles
db.createRole db.shutdownServer db.currentOp db.createView
db.shutdownServer db.fsyncLock db.stats db.grantPrivilegesToRole
db.serverBts db.tMaster db.printCollectionStats db.dropAllRoles
db.serverStatus db.stats db.getProfilingStatus db.revokePrivilegesFromRole
db.rotateCertificates db.commandHelp db.setFreeMonitoring db.version
db.enableFreeMonitoring db.listCommands db.killOp
db.getLogComponents
mydb> db.myCollection.find()
mydb> db.myCollection.insertOne({id: "1", name: "Ronaldo"})
{
  acknowledged: true,
  insertedId: ObjectId("642b46dcbe7843e5138a333")
}
mydb> db.myCollection.insertOne({id: "2", name: "Roneey"})
{
  acknowledged: true,
  insertedId: ObjectId("642b46e8be7843e5138a334")
}
mydb> exit
root@3diea67c5ad5:/# exit
exit
ubuntu@aa...:~ curl -X POST -H "Content-Type: application/json" -d '{ "id": "1"}' http://localhost:3000/my-endpoint
{"status": "2000", "desc": "success"}ubuntu@aa...:~
```

We had some dependency missing issues

Activities Firefox Web Browser 28 08:54

Build-&Push-Image (#31) Inbox (1) - aashik.s@hsen... New chat

sd-wan-manager

- Project
- Repository
- Issues 130
- Merge Requests 2
- CI/CD
- Pipelines
- Jobs
- Schedules
- Charts
- Operations
- Wiki
- Snippets
- << Collapse sidebar

sd-wan-manager

sdwan-information-sync-service sdwan-report-generator-service

[INFO] ...
[INFO] BUILD FAILURE
[INFO] ...
[INFO] Total time: 02:38 min
[INFO] Finished at: 2023-04-28T03:23:02Z
[INFO] ...
[ERROR] Failed to execute goal org.codehaus.mojo:appassembler-maven-plugin:1.10:generate-daemons (generate-jsw-scripts) on project sdwan-manager-api: Failed to copy artifact.: File /code/sdwan-manager-db-schema/target/sdwan-manager-db-schema-1.0.9.jar does not exist -> [Help 1]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoExecutionException
[ERROR] After correcting the problems, you can resume the build with the command
[ERROR] mvn <goals> -rf :sdwan-manager-api

Cleaning up...
build finished with exit code 1 in 3m 0s.
Cleaning up project directory and file based variables
ERROR: Job failed: exit code 1

Build-&Push-Image

New issue

Duration: 3 minutes 59 seconds
Timeout: 1h (from project)
Runner: gitlab-sdwan (#66)

Commit da335bc6
Update .gitlab-ci.yml

Pipeline #13056 from master

build

→ Build-&Push-Image

Summary of April 01-30

During April, significant progress was made in the implementation of the SD-WAN Manager project and the development of an automated pipeline. An Azure server was created, and containers for Mongo and MongoJS were successfully deployed. The building and deployment processes were automated through a designed pipeline.

The project's process was understood by reading the project's readme file and engaging in discussions with team members and the supervisor. The pipeline design was refined based on feedback and concerns. Best practices and potential optimizations for the pipeline were explored through research.

The pipeline diagram was reviewed and updated to accurately reflect the project's workflow. Documentation of the pipeline structure and stages was also worked on. Multiple discussions and meetings were held with the supervisor to ensure the pipeline's effectiveness and address any issues.

Efforts were made to manually build and push images to the Docker registry on the server. Initially, dependency errors were encountered, but they were resolved with the assistance of the supervisor.

Initiation of the work on the build stage pipeline script for the SD-WAN Manager project took place. Errors were identified and fixed, with support from the supervisor and independent efforts.

Overall, April saw significant progress in setting up the infrastructure, creating and refining the pipeline, and addressing various issues to establish a smooth automated workflow for the SD-WAN Manager project.



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WEEK NO : 12

FOR THE WEEK ENDING					TRAINING LOCATION			
Sunday	Satur day	Friday	Thursday	Wednesday	Tuesday	Monday	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
07/05/2023	06/05/2023	05/05/2023	04/05/2023	03/05/2023	02/05/2023	01/05/2023	Day	<ul style="list-style-type: none"> ▪ May Day
								<ul style="list-style-type: none"> ▪ Encountered issues related to the deployment stage in pipeline creation.
								<ul style="list-style-type: none"> ▪ The issues related to the deployment stage were fixed using relevant search results. A solution was found to log in to the server using an older version of Git. The build part of the pipeline was completed.
								<ul style="list-style-type: none"> ▪ Attempts were made to run a script in separate pipelines for the App and Web branches.
								<ul style="list-style-type: none"> ▪ Vesak Full Moon Poya Day
								<ul style="list-style-type: none"> ▪ Weekend
								<ul style="list-style-type: none"> ▪ Weekend

WEEK NO : 13

FOR THE WEEK ENDING					TRAINING LOCATION
Sunday 14/05/2023					Office of the Company
Sunday	Saturday	Friday	Thursday	Wednesday	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
					<ul style="list-style-type: none"> ▪ An email was sent regarding the issues with the old version of GitLab. A meeting was held with QA engineers to discuss the deployment process.
					<ul style="list-style-type: none"> ▪ A meeting was conducted with the DevOps engineer, and ideas were gathered to address the issues with the old version. Participation took place in the Code Fest Awareness Session organized by the company.
					<ul style="list-style-type: none"> ▪ A meeting was held with the team, and the presentation was modified accordingly. The idea was presented to the management-level members through the revised presentation. Further research were conducted based on the issues they suggested
					<ul style="list-style-type: none"> ▪ The solutions for build stage issues were found, and the bugs were fixed. An identification and report of a bug from the development side were made for resolution.
					<ul style="list-style-type: none"> ▪ A proposed proposal regarding automated pipelines was sent to the manager. A request was made to create a deployment repository for the SD WAN project to automate the deployment process. An email was sent regarding a bug in the version, specifically related to building and pushing images in the 1.0.9 tag.
					<ul style="list-style-type: none"> ▪ Weekend
					<ul style="list-style-type: none"> ▪ Weekend

WEEK NO : 14

FOR THE WEEK ENDING				TRAINING LOCATION
Sunday	Satur day	Friday	Day	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
21/05/2023			Monday	Date
			15/05/2023	<ul style="list-style-type: none"> ▪ I focused on creating the draft for the DA_Web script. I dedicated several hours to carefully crafting the script, ensuring that it meets the requirements and objectives of the project. I reviewed and refined the content multiple times to enhance its quality.
			16/05/2023	<ul style="list-style-type: none"> ▪ My main task for today was working on the draft for the DA_App script. Building upon the previous day's progress, I continued my efforts to create a compelling and well-structured script. I brainstormed ideas and included key features and functionalities of the app to make the script informative and persuasive. Additionally, I considered user experience and ensured that the script effectively communicates the benefits of using the app.
			17/05/2023	<ul style="list-style-type: none"> ▪ I focused on enhancing the DA_Web and DA_App repositories. After careful consideration, it was decided that maintaining one pipeline would be more efficient for managing both repositories. To implement this approach, I worked on restructuring the repositories and creating separate folders for the DA_Web and DA_App projects.
			18/05/2023	<ul style="list-style-type: none"> ▪ I focused on enhancing the pipeline. With the new script in place, I worked on incorporating it into the pipeline configuration. I updated the pipeline definition, ensuring that the appropriate jobs are executed for the Deploy to Web and Deploy to App projects. I also made improvements to the pipeline's stages, optimizing the workflow and ensuring the smooth execution of tasks.
			19/05/2023	<ul style="list-style-type: none"> ▪ I conducted a thorough review of the pipeline configuration, identifying areas for improvement and optimization. I made refinements to the stages, steps, and overall structure of the pipeline to enhance its efficiency and reliability.
			20/05/2023	<ul style="list-style-type: none"> ▪ Weekend
			21/05/2023	<ul style="list-style-type: none"> ▪ Weekend

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERD AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

Current Process



Proposed Solution



Created a repo for deployment.

The GitHub repository page shows:

- Project information**: Project ID: 53, 53 Commits, 1 Branch, 1 Tag, 11 MB Project Storage.
- Commits**: Update .gitlab-ci.yml file by Musthakeen Ahmed (17 minutes ago).
- Branches**: main, sd-wan-manager-deployment / +.
- Actions**: Find file, Web IDE, Clone, CI/CD configuration, Add LICENSE, Add CHANGELOG, Add CONTRIBUTING, Auto DevOps enabled, Add Kubernetes cluster.
- Files**: README, .gitlab-ci.yml, README.md.
- Contributors**: Last commit by Musthakeen Ahmed.

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERD AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

Summary of May 01- 20

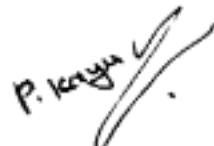
Starting from the beginning of May and continuing onward, I faced several challenges related to the deployment stage in pipeline creation. However, I was able to successfully resolve each of these issues. After conducting relevant searches, I successfully fixed the deployment issues by logging into the server using an older version of Git. I also completed the build part of the pipeline. Additionally, I made attempts to run a script in separate pipelines for the App and Web branches. I communicated the issues with the old version of GitLab through an email and held a meeting with QA engineers to discuss the deployment process. Collaboration with the DevOps engineer yielded ideas to address the issues with the old version.

I also participated in a company-organized Code Fest Awareness Session, further expanding my knowledge. In a meeting with the team, I modified and presented a revised presentation to management-level members, incorporating their suggestions. Additionally, I conducted research based on the issues raised. I identified and resolved build stage issues, reported and addressed bugs from the development side, and proposed an automated pipeline solution to the manager. I sent an email requesting the creation of a deployment repository for the SD WAN project to automate the deployment process and notified about a bug in the 1.0.9 tag. I dedicated focused time to creating drafts for the DA_Web and DA_App scripts, refining them to meet project objectives and requirements. I also enhanced the repositories and pipeline configuration, ensuring efficient management and execution. A thorough review and optimization of the pipeline configuration were conducted, and necessary re-configurations were made in the Gitlab script, eliminating security vulnerabilities. Finally, I successfully finalized and completed the project.



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WEEK NO : 15

FOR THE WEEK ENDING				TRAINING LOCATION
Sunday	Monday	Tuesday	Wednesday	Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT		
	22/05/2023			<ul style="list-style-type: none"> I focused on making some re-configurations in the Gitlab script. I dedicated my time to eliminating the need for using sudo in the script, as it can introduce security vulnerabilities.
	23/05/2023			<ul style="list-style-type: none"> I engaged in research to familiarize myself with various business intelligence tools, aiming to acquire knowledge about their practical applications in order to effectively contribute to the upcoming project.
	24/05/2023			<ul style="list-style-type: none"> With a specific focus on Power BI, I immersed myself in understanding its features and capabilities, honing my skills in crafting engaging and informative dashboards using this tool.
	25/05/2023			<ul style="list-style-type: none"> I had a meeting with my manager and supervisor, where we explored the new project's objectives and worked together to establish a solid architectural plan that would guide its implementation.
	26/05/2023			<ul style="list-style-type: none"> Explored Grafana basics: Reviewed key concepts and features of the Grafana platform. Refreshed SQL query knowledge: Reinforced understanding of SQL queries for data retrieval and manipulation. Created a dummy employee dataset: Generated simulated data including employee de-tails, working hours, and project information. Installed Grafana in Docker: Utilized Docker to set up a containerized environment for Grafana.
Saturday	27/05/2023			<ul style="list-style-type: none"> Weekend
Sunday	28/05/2023			<ul style="list-style-type: none"> Weekend

WEEK NO : 16

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday 04/06/2023		Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	29/05/2023	<ul style="list-style-type: none"> Studied Grafana variables and data linking: Explored Grafana's variable functionality and options for integrating data from multiple sources. Developed a comprehensive dashboard: Created visualizations for working hours, working projects, and project status using SQL queries and the dummy dataset. Implemented employee name variable: Added a variable for efficient searching and filtering of specific employees within the dashboard.
Tuesday	30/05/2023	<ul style="list-style-type: none"> Implemented pagination in the table design to effectively manage large datasets. Utilized variables to enable flexible data filtering and customization within the table, enhancing the user's ability to interact with and explore the displayed information. Conducted thorough research to identify the most suitable method for deploying my Grafana dashboard on a server. As a result, I discovered the option to export the dashboard as a JSON file and import it into another Grafana instance. Created specific user roles and assigned individuals to access and interact with designated Grafana dashboards, ensuring appropriate data access control and maintaining data privacy and security. Received a dummy SQL dataset, thoroughly examined its contents, and gained valuable insights. These insights helped me develop a clear understanding about data.
Wednesday	31/05/2023	<ul style="list-style-type: none"> Created SQL tables: Today, I created SQL tables for a provided dataset. Designed API-Team focused Grafana dashboard table: Using the dataset, I tried to design tables that are optimized for API-Team using all the API-Tables. These tables were tailored to extract and present the most relevant information.
Thursday	01/06/2023	<ul style="list-style-type: none"> User Creation: I successfully created a user called "Core Admin" within the system. Dashboard Creation: I developed a dashboard named "Core Admin Dashboard," specifically tailored for the needs of the "Core Admin" user.

		<ul style="list-style-type: none"> Access Control: I ensured that only the "Core Admin" user has access to the "Core Admin Dashboard," maintaining data confidentiality and restricting access to authorized personnel only. Table View Dashboard: Utilizing Grafana, I designed a visually appealing and informative table view dashboard. By utilizing SQL queries, I incorporated essential details related to the core team, providing a comprehensive overview of their Billable Rate, Resource Efficiency, etc.
	Friday	02/06/2023
Saturday		<ul style="list-style-type: none"> Started the day by creating two variables in Grafana dashboard: Created two variables in the Grafana dashboard to improve data filtering efficiency. These variables allow for easier and more precise filtering of data within the dashboard. Productive meeting with supervisor: Conducted a meeting with your supervisor and showcased a demo of the progress made on the project. Received feedback and suggestions from your supervisor. Created a Wiki markdown page in Grafana-dashboard Git repository: Created a detailed Wiki markdown page in the Git repository associated with the Grafana dashboard project. Documented the purpose, features, and functionality of the dashboard and it included step-by-step instructions on how to use the dashboard effectively.
Sunday	03/06/2023	<ul style="list-style-type: none"> Weekend
	04/06/2023	<ul style="list-style-type: none"> Weekend

**DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERD AND HOW SOLVED
ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE**

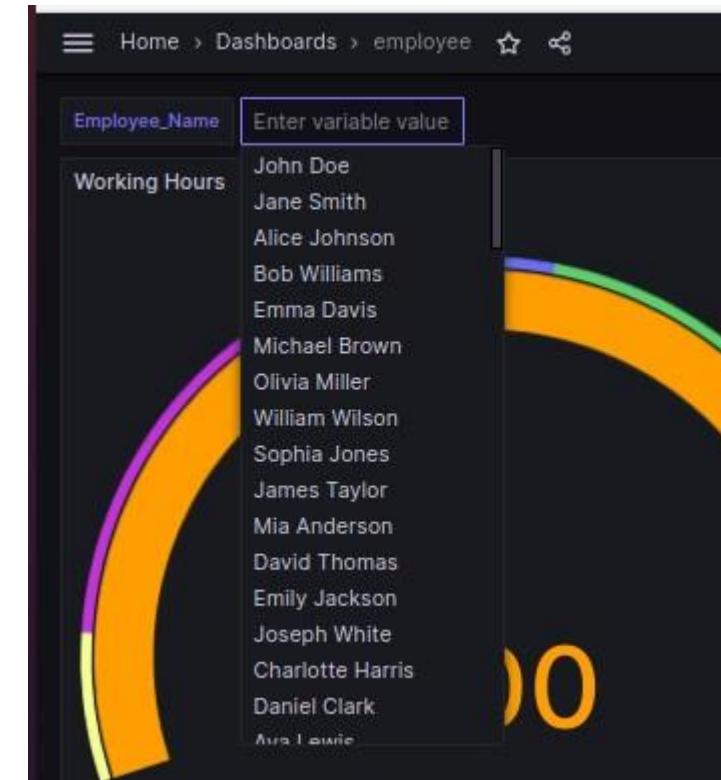
Demo Dashboard



A table showing project status and working hours for Michael Brown. The table has columns for user_name, project_status, and Working_hours. Michael Brown has a project status of 0.30 and 8 hours worked. The table shows 1 row.

user_name	project_status	Working_hours
Michael Brown	0.30	8

Variables to filter the data



Core Team Dashboard

The dashboard displays several data tables:

- Table 1:** A grid of 6 rows and 5 columns with data like 'apex_new_api' and '40'.
- Table 2:** A table titled 'Panel Title' with columns: name, department, Task, estimated_hours, spent_hours, Project. Data includes Haffaz (Sprint-CV1), Wajira Somaratne (PROJECT MANAGEMENT), Shahadat Hossain (DEVELOPMENT), Mudara Bandaranayaka, Shehan Perera (DELIVERY_ASSURANCE), and Gayan Perera (IMPLEMENTATION).
- Table 3:** A table titled 'Panel Title' with columns: project_id, name, type, customer, description, manager, start_date, end_date, revised_end_date, active_milestones, status. Data includes projects like apex_new_api, applink_sd, applink_support_t, and applink-troub.
- Table 4:** A table titled 'Core Team' with columns: fiscal_year, month, projects, No_of_Tasks, estimated_hours, spent_hours, People Efficiency, Billable Rate. Data spans from 2020/21 to 2021/22 across various months and projects.

Create users.

The interface shows a 'Permissions' section with a 'Permissions' tab and a 'Add a permission' button.

Add Permission For:

- User: Core Admin
- Role: Admin, Editor, Viewer
- Permission: Admin, Edit, View

User:

- Core Admin: View, Admin
- admin: View, Admin

Summary of May 01- 20

During the past few days, I have been actively involved in enhancing my knowledge and skills in business intelligence tools, specifically focusing on Power BI. Through extensive research, I gained a deeper understanding of various BI tools and their practical applications, enabling me to contribute effectively to our upcoming project. Additionally, I immersed myself in learning the features and capabilities of Power BI, refining my ability to create captivating and informative dashboards.

In a recent meeting with my manager and supervisor, we collaboratively explored the objectives of our new project and established a robust architectural plan to guide its implementation. This ensured alignment and clarity among the team members, setting a solid foundation for our work ahead.

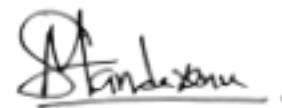
Furthermore, I delved into the fundamentals of Grafana, a powerful data visualization platform. I familiarized myself with key concepts, such as variables and data linking, and successfully installed Grafana in a Docker containerized environment. Leveraging SQL queries, I created a comprehensive dashboard that showcased various visualizations related to working hours, project status, and employee details using a dummy dataset.

To optimize the dashboard, I implemented pagination in the table design and utilized variables for efficient data filtering and customization. I also conducted extensive research to identify the best method for deploying the Grafana dashboard on a server and implemented secure access controls to ensure data confidentiality. Additionally, I created SQL tables, designed team-focused dashboards, and documented the project's progress in a Wiki markdown page within the Grafana-dashboard Git repository.



SIGNATURE OF TRAINEE

REMARKS AND CERTIFICATION BY THE ENGINEER / T.O



SIGNATURE

WEEK NO : 17

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday 11/06/2023		Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	05/06/2023	<ul style="list-style-type: none"> ▪ Enhanced Authentication: I focused on improving the authentication process in Grafana by implementing organizational structures and team management. ▪ Imported Filtered Tables: I successfully discovered a solution to import filtered tables into Grafana using the CSV format. ▪ Explored Kubernetes Resources: I dedicated time to expanding my knowledge of Kubernetes by referring to informative YouTube videos.
Tuesday	06/06/2023	<ul style="list-style-type: none"> ▪ Explored Kubernetes Tutorial: I delved into Kubernetes from its basics, referring to comprehensive tutorials that provided a step-by-step understanding of the platform. ▪ Understood Kubernetes Architecture: I gained a foundational understanding of the Kubernetes architecture. This involved studying the key components such as nodes, pods, services, ingresses, configmaps, secrets, volumes, deployments, and statefulsets. ▪ Focus on Minikube and Kubectl: I specifically focused on Minikube, a tool that enables the setup of a single-node Kubernetes cluster on a local machine, and kubectl, the command-line interface for Kubernetes. I explored relevant scripts and commands associated with these tools, which will prove valuable in managing and interacting with Kubernetes clusters.
Wednesday	07/06/2023	<ul style="list-style-type: none"> ▪ Comprehensive Understanding of Kubernetes Cluster Components: I dedicated time to thoroughly learn about the key components of a Kubernetes cluster, reinforcing my knowledge with practical examples. ▪ Demo Project Creation: To apply my knowledge practically, I created a demo project that involved deploying MongoDB and MongoDB Express (mongo-express) using Kubernetes. I created a secret.yml file to securely store the MongoDB username and password, a services.yml file to establish connections between the services, and a configmap.yml file to configure the necessary settings. ▪ Hands-on Experience with kubectl and kubectx: I actively practiced working with the kubectl and kubectx commands, familiarizing myself with their usage and purpose. ▪ Had a meeting with supervisor four-month evaluation of the training. The event which arranged by company.

Thursday	08/06/2023	<ul style="list-style-type: none"> ▪ Explored Ingress in Kubernetes: I dedicated time to understanding and familiarizing myself with Ingress in Kubernetes. ▪ Learned about HELM Package Manager: I delved into HELM, a popular package manager for Kubernetes, which simplifies the deployment and management of applications. ▪ Explored Volumes in Kubernetes: I researched the usage of volumes in Kubernetes, including persistent volumes (PVs), persistent volume claims (PVCs), and storage classes. I understood the purpose and significance of these components through learning. ▪ Studied StatefulSet: I focused on StatefulSets in Kubernetes, comparing them with deployments and understanding the differences and use cases. By grasping the unique features and benefits of StatefulSets. ▪ Investigated Kubernetes Services and Types: I extensively referred to Kubernetes services and their various types, including Cluster IP services, Headless services, NodePort services, and LoadBalancer services. I examined the distinctions between these types and deepened my understanding of their use cases and functionalities.
Friday	09/06/2023	<ul style="list-style-type: none"> ▪ Explored k3s Kubernetes Testing and Deployment: I dedicated time to learn about k3s, a lightweight Kubernetes distribution, specifically focusing on its testing and deployment methods. By understanding the unique features and benefits of k3s, I gained insights into its efficient usage for Kubernetes operations. ▪ Viewed Demo Projects Utilizing k3s Kubernetes Model: I had the opportunity to view some demo projects that showcased the implementation of the k3s Kubernetes model. This allowed me to observe real-life examples of how k3s can be utilized effectively in various scenarios. ▪ Participated in a Code Fast Event through online.
Saturday	10/06/2023	<ul style="list-style-type: none"> ▪ Weekend
Sunday	11/06/2023	<ul style="list-style-type: none"> ▪ Weekend

WEEK NO : 18

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday 18/06/2023		Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	12/06/2023	<ul style="list-style-type: none"> ▪ Explored Organize Feature in Grafana: I dedicated time to learning about the "Organize" functionality in Grafana. I applied this feature to enhance the organization and management of my Grafana dashboard. ▪ Conducted a Comparison between Kubernetes (k8s) and k3s: I dedicated time to compare the features and characteristics of Kubernetes (k8s) and k3s. ▪ Reviewed YouTube Videos on k3s: I actively sought out and watched informative YouTube videos related to k3s. These videos provided valuable insights, tips, and best practices for utilizing k3s effectively. ▪ Attempted to Create a Demo Project Using k3s: I undertook the task of creating a demo project using k3s. During the process, I encountered some errors, but I successfully resolved several of them through troubleshooting.
Tuesday	13/06/2023	<ul style="list-style-type: none"> ▪ Explored YAML File Creation in Kubernetes: I conducted research on creating YAML files in Kubernetes, focusing on understanding the syntax and structure required for defining Kubernetes resources. ▪ Created YAML Files for Service, Deployment, PV, and Replicas: Using the knowledge gained, I created draft YAML files for different Kubernetes resources. Specifically, I created YAML files for services, deployments, persistent volumes (PVs), and replicas. These files contain the necessary specifications to define and configure these resources within a Kubernetes environment. ▪ Successfully Deployed Grafana in Pods: Leveraging the YAML files created, I accomplished the successful deployment of Grafana in pods within a Kubernetes cluster.
Wednesday	14/06/2023	<ul style="list-style-type: none"> ▪ Identified Errors and Created a New Draft Project: During a review of my previous work, I identified some errors. To rectify the issues, I created a new draft project. This project involved successfully deploying an index.html file in pods within a Kubernetes cluster. ▪ Created Deployment and Service YAML Files for Grafana: As part of the project, I created deployment and service YAML files specific to Grafana. These files were essential for configuring and deploying Grafana within the Kubernetes cluster. Additionally, I successfully deployed Grafana inside a pod using deployment on my local machine. ▪ Troubleshooting and Error Resolution: Despite facing errors during the deployment of Grafana within the pod on my local machine, I actively troubleshooted the issues.

		<ul style="list-style-type: none"> Configured Persistent Volume (PV) and Persistent Volume Claim (PVC) for Grafana: To ensure the persistence of Grafana dashboards, I created and configured PVs and PVCs. I tested the PVs and PVCs to ensure they met our target requirements.
Thursday	15/06/2023	<ul style="list-style-type: none"> Conducted a Demo Presentation to the Supervisor: I arranged a progress demonstration to demo the functionalities of the Grafana dashboard and the Kubernetes cluster. Created a Wiki Page in GitLab Repository: I authored a comprehensive wiki page in the GitLab repository specifically focused on Grafana Dashboard Organization and Users. The wiki page provided detailed instructions on creating users, organizing the dashboard, and granting specific permissions to individual user. Developed a Separate Dashboard for Working Hours: As part of enhancing functionality, I created a dedicated dashboard to track and display working hours. By establishing a data link with the Core Admin Dashboard, I enabled users to click on an employee's profile and seamlessly navigate to the separate dashboard to view their respective working hours.
Friday	16/06/2023	<ul style="list-style-type: none"> Implemented Ingress for Grafana with Domain Name Access: I successfully configured an Ingress resource in Kubernetes to enable access to Grafana using a domain name. Created a Namespace for Grafana: To ensure a structured and organized codebase created a dedicated namespace named "hview-grafana" specifically for managing Grafana-related resources. Created and Pushed YAML and grafana Backup Files: I generated all the necessary YAML files for Grafana deployment and configuration, ensuring a well-defined and reproducible setup. Additionally, I created a development branch in GitLab and pushed the YAML files and GitLab backup files to the designated branch. Documented Deployment Steps in README.md: To provide clear instructions for deploying the Grafana setup, I authored a detailed README.md file. This step-by-step guide outlines the necessary actions and configurations required to deploy the solution successfully.
Saturday	17/06/2023	<ul style="list-style-type: none"> Weekend
Sunday	18/06/2023	<ul style="list-style-type: none"> Weekend

WEEK NO : 19

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday 25/06/2023		Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	19/06/2023	<ul style="list-style-type: none"> ▪ Verified and Updated Backup Files: I thoroughly checked the backup files for the Core Team Dashboard and Working Hours Dashboards. After ensuring their integrity, I updated the repository with the latest versions of these backup files. ▪ Enhanced Repository README.md: To improve the repository's documentation and user experience, I made several updates to the README.md file. I added informative screenshots to provide a visual guide for users, making it easier for them to navigate through the deployment process. ▪ Conducted Two Demo Deployments: I personally executed two deployment instances to test the setup. During this process, I encountered some bugs and issues. However, I promptly addressed and resolved these issues, ensuring a smooth and error-free deployment.
Tuesday	20/06/2023	<ul style="list-style-type: none"> ▪ Self-Study: Today, after completing my tasks, I had some free time available. During this period, I self-study the topic of Prometheus Monitoring on Kubernetes. I sought out relevant resources and materials to enhance my understanding of this monitoring solution. ▪ Dashboard Panel Creation in Grafana: according to a new task attempted to create a dashboard panel in Grafana. Specifically, I aimed to design a timeline graph that visualizes data from a database. I explored different options and functionalities within Grafana to achieve this goal.
Wednesday	21/06/2023	<ul style="list-style-type: none"> ▪ Enhanced User Filtering: I made improvements to the project allocation graph by implementing user filtering. Now, when a user ID is selected, the graph displays all the working projects associated with that user, along with their corresponding tasks and completion dates. ▪ Table Data Transformation: To further enhance the user experience, I modified the table used for data filtering. Instead of filtering data based on user ID, I joined another table and updated the filtering mechanism to utilize user names. This change makes it easier for users to locate and filter data based on specific user names.

Thursday		22/06/2023	<ul style="list-style-type: none"> ▪ Project Allocation Graph Customization: Added additional features to the project allocation graph, such as username filtering. Finalized the customized graph and presented it to the supervisor for evaluation. ▪ Learning Next.js: Started learning Next.js based on the supervisor's guidance. ▪ Explored Next.js basics: Gained insights into the fundamental structure and workflow of Next.js through YouTube videos and documentation.
Friday		23/06/2023	<ul style="list-style-type: none"> ▪ Learning Next.js Architecture: I dedicated time to delve into the architecture of Next.js. I aimed to gain a comprehensive understanding of how Next.js is structured and how its components interact with each other. ▪ YouTube Reference and Code Following: To enhance my understanding, I referred to YouTube videos that cover Next.js architecture. I followed along with the code examples provided in these videos to solidify my grasp of the concepts discussed.
Saturday		24/06/2023	<ul style="list-style-type: none"> ▪ Weekend
Sunday		25/06/2023	<ul style="list-style-type: none"> ▪ Weekend

WEEK NO : 20

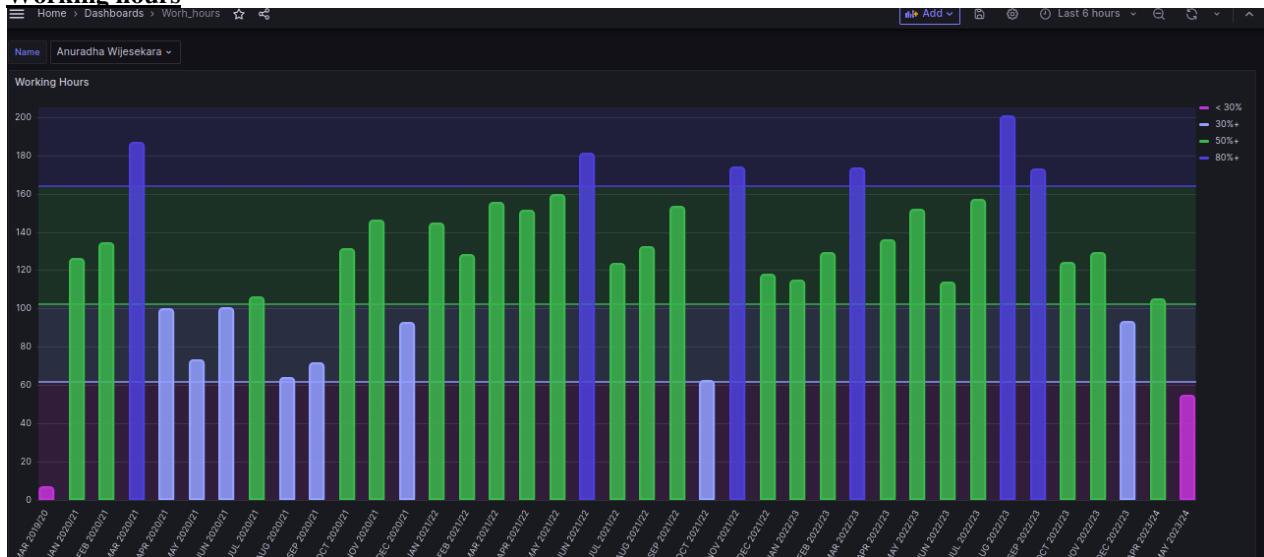
FOR THE WEEK ENDING		TRAINING LOCATION
Sunday 04/07/2023		Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	26/06/2023	<ul style="list-style-type: none"> ▪ Documentation Review: I spent time reviewing documentation on how to connect MongoDB with Next.js. This allowed me to familiarize myself with the necessary steps and requirements for establishing the connection. ▪ MongoDB Integration: I attempted to access the MongoDB database within a Next.js application. By implementing the necessary configurations and code, I aimed to establish a successful connection between Next.js and MongoDB, enabling data retrieval and manipulation
Tuesday	27/06/2023	<ul style="list-style-type: none"> ▪ Documentation Review: I referred to various documentation sources, including the Next.js 13 documentation, to learn about creating tables using Next.js. ▪ Table Creation: Using the knowledge gained from the documentation, I created an attractive table on a webpage. To accomplish this, I utilized various tools and resources, such as Next.js 13, JSON Server, Tailwind CSS, Daisy UI, React Icons, and UUID. Incorporating these elements helped me enhance the functionality and visual appeal of the table. ▪ Edit Functionality: Additionally, I added the capability to edit the table. By leveraging demos and examples, I implemented the necessary features to enable editing of the table's content.
Wednesday	28/06/2023	<ul style="list-style-type: none"> ▪ Table Expansion: I extended the existing table by adding another column to accommodate additional data. This allowed for better organization and presentation of information within the table. ▪ Adding New Task Option: I implemented a feature that enables users to add new tasks to the table. By incorporating a user-friendly interface, users can input the necessary details and append the new task to the table dynamically. ▪ Edit Functionality Enhancement: I further improved the edit functionality of the table. I included an icon, represented by an "rdt," which, when clicked, displays a form where users can edit the contents of the table. This streamlined the editing process and provided a more intuitive user experience. ▪ Delete Feature: I added a feature that allows users to delete table content. By incorporating a delete icon within each row of the table, users can click on it to trigger an alert message. Upon confirming the deletion by clicking

			"okay," the respective content is removed from the table.
	Thursday		
	Friday	29/06/2023	<ul style="list-style-type: none"> ▪ Dhul-Hajj Festival
	Saturday	30/06/2023	<ul style="list-style-type: none"> ▪ MongoDB Atlas Connection: I successfully established a connection between my Next.js website and MongoDB Atlas. By configuring the necessary settings and credentials, I ensured seamless communication between the website and the cloud-hosted MongoDB database. ▪ Retrieving Data from MongoDB: Using Next.js code, I implemented functionality to fetch data from the MongoDB database. ▪ Displaying MongoDB Output: I utilized Next.js code to present the retrieved MongoDB data on the web page. By incorporating appropriate HTML and JavaScript elements.
Sunday		03/07/2023	<ul style="list-style-type: none"> ▪ Weekend
		04/07/2023	<ul style="list-style-type: none"> ▪ Weekend

**DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERD AND HOW SOLVED
ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE**

Employee details dash-board

Working hours



Project allocation



Project GitLab Repository

Name	Last commit	Last update
..	Adding some folders and updated files	2 hours ago
Dashboard Json files	Adding some folders and updated files	2 hours ago
Readme_Img	Adding some folders and updated files	2 hours ago
backup	Update the backup file	1 hour ago
Ingress-grafana.yml	Adding Grafana-dashbord-core files	2 days ago
Readme.md	Update Readme.md	1 hour ago
deployment-grafana.yml	Adding grafana-dashboard-core YAML file	3 days ago
pv-grafana.yml	Adding Grafana-dashbord-core files	2 days ago

Issued No: SIT/DD/FM/03

Issued Date: 17.01.2023

NAITA / SIT / ITUM / NDT / IT / 2023

Kubernetes output screenshot

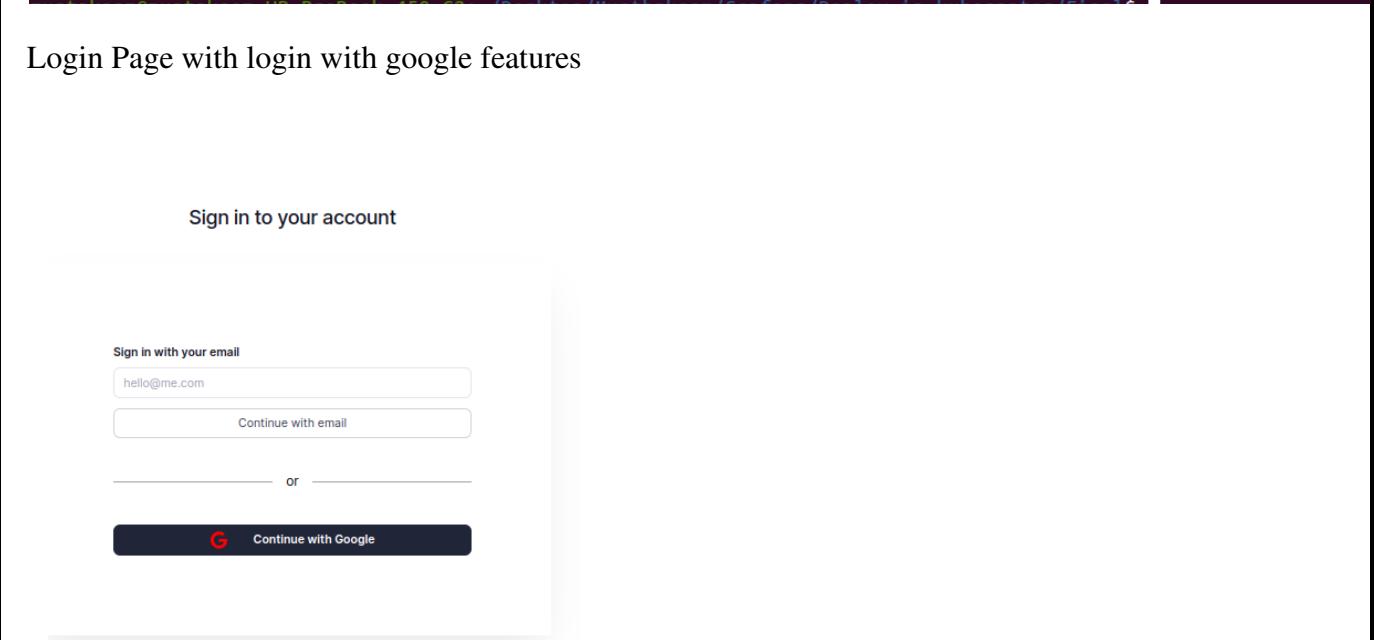
```
mustakeem@mustakeem-HP-ProBook-450-G2:~/Desktop/Musthakeem/Grafana/Deploy in kubernetes/Final$ kubectl get all
NAME                                         READY   STATUS    RESTARTS   AGE
pod/grafana-deployment-5bc4596bdf-pmz58   1/1     Running   0          28m

NAME                TYPE        CLUSTER-IP      EXTERNAL-IP   PORT(S)        AGE
service/kubernetes  ClusterIP   10.43.0.1     <none>       443/TCP       5h54m
service/grafana-service  LoadBalancer  10.43.148.86  172.16.1.80  3000:30010/TCP  10s

NAME                           READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/grafana-deployment  1/1     1           1          3h44m

NAME                            DESIRED  CURRENT  READY   AGE
replicaset.apps/grafana-deployment-5bc4596bdf  1        1        1      117m
```

Login Page with login with google features



Demo project Home page

A screenshot of a web-based To Do List application. The URL in the address bar is "localhost:3000". The main title is "To Do List". Below the title is a purple header bar with the text "ADD NEW TASK" and a plus sign. The main content area has two columns: "Tasks" and "Action". There are six items listed under "Tasks": "Buy nothing", "Helping others", "going to shop", "waiting list", and "Going to mosque". Each item has a blue edit icon and a red delete icon under the "Action" column.

Summary for the Month of June

Throughout the month of June, I made significant progress in my work, focusing on enhancing authentication processes in Grafana, importing filtered tables, and expanding my knowledge of Kubernetes. I dedicated time to thoroughly understand Kubernetes architecture, components, and tools such as Minikube and kubectl. Additionally, I explored various Kubernetes resources like StatefulSets, Ingress, and volumes.

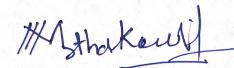
I actively practiced working with kubectl and kubectx commands and successfully created a demo project deploying MongoDB and MongoDB Express using Kubernetes. I also participated in a four-month evaluation meeting with my supervisor to discuss my progress.

In the following days, I delved into topics like Helm package manager, different types of Kubernetes services, and the lightweight Kubernetes distribution k3s. I explored YAML file creation, successfully deployed Grafana in pods, and troubleshooted issues along the way.

Later, I focused on creating separate dashboards, configuring Ingress for Grafana with domain name access, and creating a namespace for Grafana to ensure organized management. I documented deployment steps, verified backup files, and presented progress demonstrations to my supervisor.

In my spare time, I self-studied Prometheus Monitoring on Kubernetes and dedicated time to learning Next.js. I gained insights into Next.js architecture, reviewed documentation, and integrated MongoDB with Next.js to establish a successful connection.

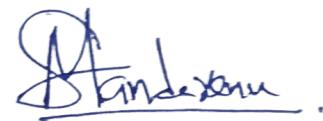
I successfully created an attractive table on a webpage, implemented editing functionality, and connected Next.js with MongoDB Atlas to retrieve and display data. Overall, the month was productive, filled with hands-on experience, problem-solving, and continuous learning in Grafana, Kubernetes, and Next.js.



SIGNATURE OF TRAINEE

REMARKS AND CERTIFICATION BY THE ENGINEER / T.O

M.A.C Sandarenu



SIGNATURE

WEEK NO : 21

FOR THE WEEK ENDING			TRAINING LOCATION
Sunday 09/07/2023			Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT	
Monday	03/07/2023	<ul style="list-style-type: none"> ▪ FULL-MOON-POYA-DAY 	
Tuesday	04/07/2023	<ul style="list-style-type: none"> ▪ LEAVE 	
Wednesday	05/07/2023	<ul style="list-style-type: none"> ▪ Modified the Core Team Grafana dashboard to accommodate necessary changes, allowing team members to create their own dashboards within the organization and assigning appropriate permissions. ▪ Explored Next.js through documentation resources to gain a better understanding of its features, capabilities, and best practices for development. 	
Thursday	06/07/2023	<ul style="list-style-type: none"> ▪ Movie Table Creation in Next.js: Developed a web application using Next.js framework to display movies and their descriptions in a structured table format. This involved designing the user interface and implementing the necessary components and logic to present the movie data effectively. ▪ Table Functionality: Enhanced the movie table by implementing interactive features such as the ability to add new elements and delete existing ones. Users can dynamically add movie entries to the table and remove entries as needed. ▪ Integration of MongoDB API: Successfully integrated MongoDB with the application's API to facilitate data retrieval, storage, and manipulation. This involved implementing API endpoints such as GET, POST, DELETE, etc., enabling seamless communication between the web application and the MongoDB database. The integration was thoroughly tested using tools like Postman to ensure reliable and efficient interaction between the application and the database. 	
Friday	07/07/2023	<ul style="list-style-type: none"> ▪ Next.js Application and MongoDB Connection: I worked on connecting MongoDB with my Next.js application. Although the connection part was successfully established, I encountered an error while mapping the data. I dedicated time to troubleshooting and resolving the error to ensure the proper functioning of the data mapping process. 	

		<ul style="list-style-type: none"> ▪ Google Drive API Exploration: I conducted research on the Google Drive API to gain insights into its capabilities and potential use cases. By studying relevant documentation and resources, I familiarized myself with the API's features and learned how it can be utilized for various purposes.
Saturday	08/07/2023	<ul style="list-style-type: none"> ▪ Weekend
Sunday	09/07/2023	<ul style="list-style-type: none"> ▪ Weekend

WEEK NO : 22

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday 16/07/2023		Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	10/07/2023	<ul style="list-style-type: none"> ▪ Google Drive API Integration: I successfully created and configured a Google Cloud API to enable functionalities such as file creation, upload, deletion, and access using file IDs. By implementing the necessary code and configurations. ▪ Python Code for ChatGPT API: I developed a Python code snippet to interact with the ChatGPT API. This involved sending an input and receiving the corresponding output from the API.(This one for codefest) ▪ Terraform Basics: I dedicated time to learning the fundamentals of Terraform, specifically focusing on its providers and resources. By studying relevant documentation and resources, I gained a foundational understanding of how Terraform operates.
Tuesday	11/07/2023	<ul style="list-style-type: none"> ▪ Google Drive API Integration: I successfully created a Google Drive API and utilized it to develop code that moves files to a specific folder within the root directory of Google Drive. Additionally, I implemented functionality to view the list of files inside the folder and provided the option to select a file based on its order. Upon selection, I generated a link to view the chosen file. I demonstrated the output of this functionality to my supervisor for review and feedback. ▪ Next.js Authentication Concepts: I dedicated time to research authentication concepts in Next.js. Utilizing various resources, such as YouTube videos and documentation. ▪ I also created a demo project in Next.js that demonstrates login functionality using a GitHub account. This practical implementation of authentication concepts in Next.js provides hands-on experience and serves as a reference for future projects.
Wednesday	12/07/2023	<ul style="list-style-type: none"> ▪ Sign-in Page Creation: I successfully developed a sign-in page for a web application. This page included the option to sign in using Google credentials, allowing users to utilize their Google accounts to log in to the application. By implementing this functionality, I provided a convenient and secure way for users to access the application. ▪ User Authentication in Next.js: I created a route in Next.js that allowed access only to authenticated users. By incorporating authentication middleware or implementing the necessary logic, I ensured that only logged-in users could navigate to specific paths within the application. This helped to protect sensitive information and maintain proper access control.

		<ul style="list-style-type: none"> In addition to these tasks, I attempted to access Google Drive files upon pressing a button. This involved utilizing the Google Drive API to fetch the desired files. However, further work may be required to fully implement this functionality.
Thursday	13/07/2023	<ul style="list-style-type: none"> Customizing Template: Reviewed and customized a given template to align with specific project requirements. Researching Prisma: Engaged in research and exploration of Prisma, a database toolkit. Studied relevant documentation and resources to gain insights into its capabilities and potential applications within the project. Explored how Prisma can enhance data management and retrieval. Editing Login Page and Connecting MongoDB with Prisma: Edited the login page of the project and tried to establish a connection between MongoDB and Prisma. Customizing Table and Incorporating Google Drive Files: Focused on customizing a table within the project's interface. Attempted to integrate Google Drive files into the table, utilizing the Google Drive API
Friday	14/07/2023	<ul style="list-style-type: none"> Connecting Table with Google Drive Folders: Successfully established a connection between the web table and Google Drive folders. Implemented functionality to display all the folders mapped within a particular folder. By utilizing the Google Drive API, integrated the table with Google Drive to enhance organization and accessibility of files. Download Button Functionality: Implemented a download button within the project's interface. Upon clicking the button, the corresponding file from the connected Google Drive folders is downloaded. User Input Space for Folder Name: Created a user input space within the project where users can enter a folder name. Upon providing the folder name, the system retrieves and displays all files inside that specific folder.
Saturday	15/07/2023	<ul style="list-style-type: none"> Weekend
Sunday	16/07/2023	<ul style="list-style-type: none"> Weekend

WEEK NO : 23

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday 23/07/2023		Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	17/07/2023	<ul style="list-style-type: none"> ▪ Table View Update: Implemented an update to the project's table by adding a view column. Now, when a user clicks on the view option in the table, the corresponding file opens in a new tab for easy viewing. ▪ Rearrangement The code: Rearranged the code and removed any unnecessary elements to improve its visual appeal and usability. Set the table as the default home page of the project, ensuring that users are directed to the table upon accessing the application.
Tuesday	18/07/2023	<ul style="list-style-type: none"> ▪ Ongoing Work on Authentication: I made progress in implementing the login page authentication. ▪ Log Out Feature: I successfully implemented the log-out feature in the web application.
Wednesday	19/07/2023	<ul style="list-style-type: none"> ▪ UI Enhancement: Worked on arranging the UI layout to incorporate new features and ensure a visually appealing design. ▪ MongoDB Integration: Attempted to establish a connection between the application and MongoDB for handling login, register, and table record data. Encountered errors during the integration process.
Thursday	20/07/2023	<ul style="list-style-type: none"> ▪ MongoDB Integration: I successfully established a connection between our application and the MongoDB database. This allowed us to store user details securely when they click on the "Sign-In" button on the register page. The data is now being stored in MongoDB, ensuring data persistence and easy retrieval. ▪ MongoDB API Creation: As part of the integration process, I created a custom MongoDB API that handles the storing and fetching of data. This API provides the necessary endpoints to interact with the MongoDB database and manage user information efficiently.

Friday	21/07/2023	<ul style="list-style-type: none"> ▪ Register Page Enhancement: I worked on fixing an error that was displaying user name and other unwanted information on the register page. After addressing the issue, the register page now functions smoothly and displays relevant data only. ▪ Login Page Authentication: I dedicated time and effort to implementing the login page authentication. I'm happy to report that the authentication process is now working seamlessly. If there are any login errors, appropriate suggestions are displayed at the bottom of the page.. ▪ Collaboration with CapptionBuddAi Team: I collaborated with the CapptionBuddAi team (Codefest) to create a chatGPT API. This API takes user input and generates corresponding chatGPT outputs. This integration provides users with dynamic and interactive responses. ▪ Customized Navigation Bar: I made changes to the navigation bar based on the user's login status. When users are logged in, the navigation bar displays specific options, while for non-logged-in users, it shows different options.
Saturday	22/07/2023	<ul style="list-style-type: none"> ▪ Weekend
Sunday	23/07/2023	<ul style="list-style-type: none"> ▪ Weekend

WEEK NO : 24

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday 30/07/2023		Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	24/07/2023	<ul style="list-style-type: none"> ▪ Bug Fixes: I focused on resolving various bugs that were affecting the login and main table pages of the web application. After thorough debugging and testing, I successfully fixed these issues, ensuring a smoother user experience. ▪ Download Functionality: I worked on implementing a new feature that allows users to download files from within a folder. When users click on the download icon inside the search bar, the application searches for the specified file and initiates the download process. Notably, I am working on optimizing this function to download only the missing files
Tuesday	25/07/2023	<ul style="list-style-type: none"> ▪ UI Enhancements: I made some improvements to the user interface by removing certain icons and replacing them with more suitable ones that align with the provided theme. These changes were made to enhance the overall aesthetics and make the application look more beautiful and visually appealing. ▪ Folder Download Feature: I worked on implementing a new feature that allows users to download folders from the table page. However, during the implementation, I encountered some errors that prevented the functionality from working as expected. I am currently investigating these issues to identify the root cause and find a solution to fix them.
Wednesday	26/07/2023	<ul style="list-style-type: none"> ▪ File Download Optimization: I researched different methods to optimize the file download process by identifying and downloading only the files that haven't been downloaded before. I explored multiple solutions and tested some of them to ensure their effectiveness. I discussed the two most promising approaches with my supervisor and received valuable feedback. ▪ MongoDB Implementation: Based on the chosen method, I started developing the necessary code using MongoDB to store information about all downloaded files. ▪ Successful Implementation: I successfully implemented the feature that allows users to download only the files that are not already downloaded when clicking on a folder.

Thursday	27/07/2023	<ul style="list-style-type: none"> ▪ Code Cleanup and Rearrangement: Spent time organizing and cleaning up the codebase to improve readability and maintainability. ▪ Git Configuration: Created and customized a .gitignore file to specify which files and directories should be excluded from version control, ensuring that unnecessary files are not committed to Git. ▪ Website Enhancement: Replaced website icons with more appropriate ones and added additional features to improve the overall user experience and make the page visually appealing.
Friday	28/07/2023	<ul style="list-style-type: none"> ▪ UI Improvement: I dedicated my efforts to enhancing the user interface of our web application. I made various changes to improve the user experience. For example, I implemented a feature to display meaningful error messages when a user encounters an issue while logging in. Additionally, I added a functionality that notifies users when they search for a folder that does not exist, providing them with feedback on the incorrect folder name. ▪ Bug Fixes: During the course of my work, I identified and addressed several bugs present on the web page. By resolving these issues, I ensured a smoother and error-free user experience. ▪ Code Upload and Version Control: After making the necessary updates and improvements, I uploaded the modified code to our project's repository.
Saturday	29/07/2023	<ul style="list-style-type: none"> ▪ Weekend
Sunday	30/07/2023	<ul style="list-style-type: none"> ▪ Weekend

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERD AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

Create a sample web page linked to Google Drive.

This is a page for **Add-files** from Google drive

You are logged in as:
Musthakeem Ahamed

Add files from Google Drive

CV-Trakker project's homepage features a table view

MATERIO

Dashboard

Account Settings

PAGES

Login

Register

Error

USER INTERFACE

Tables

Upgrade to Premium

UPGRADE

Activities

Brave Web Browser

localhost:3000/tables/?folderName=Project

14 15:42

Files Table

Tables display sets of files in the above folder

Folder Name: Musthakeem

FILE NAME	ACTIONS
Batect	<button> DOWNLOAD</button>
Uni	<button> DOWNLOAD</button>
Docker	<button> DOWNLOAD</button>
c1_cd_test_project	<button> DOWNLOAD</button>
Grafana	<button> DOWNLOAD</button>
Kubernetes	<button> DOWNLOAD</button>
Personal	<button> DOWNLOAD</button> UPGRADE TO PRO <small>Get Started</small>

After registering with the application, the data is stored in MongoDB.

user

users

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOCUMENT

Filter Type a query: { field: 'value' } Reset Apply More Options

_id	email	password	_v
<code>ObjectId('64b8fa6a55a806fa9b2e65d5')</code>	"Ahamed123@gmail.com"	"\$2a\$12\$HUExv6qHl5y5rzBvh.uZsuxGiHJs9wMTPsJcX9f2KcT5FzCzuBwnm"	0
<code>ObjectId('64b918c955a806fa9b2e65db')</code>	"hhffdjsj@gmail.com"	"\$2a\$12\$Y4pN8cp50ZbMkR0vD6jppuOcbWXgG9g.qopc8lVmKKsX3u3zKumK"	0

System Status: All Good

File table Updated (view link)

Files Table

Tables display sets of files in the above folder

Folder Name

FILE NAME	VIEW LINK	ACTIONS
code.pdf	<input type="button" value="VIEW"/>	<input type="button" value="DOWNLOAD"/>
Ahamed_Daily Dairy - May - June .pdf	<input type="button" value="VIEW"/>	<input type="button" value="DOWNLOAD"/>
mongodb-linux-x86_64-ubuntu2004-5.0.15.tgz	<input type="button" value="VIEW"/>	<input type="button" value="DOWNLOAD"/>

Error Handling in Register Page

CV-TRACKER

Welcome to CV-Tracker! 

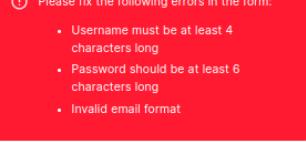
Make your app management easy and fun!

Username

Email

Password 

I agree to privacy policy & terms


① Please fix the following errors in the form:

- Username must be at least 4 characters long
- Password should be at least 6 characters long
- Invalid email format

Already have an account? [Sign in Instead](#)

Error Handling on Home Page

Files Table

Tables display sets of files in the above folder inside the Google Drive

Folder Name * 

FILES TABLE
 Folder not found or no files available for the given Folder Name.

Summary for the Month of June

Over this month, I have been involved in a diverse range of tasks and projects, showcasing my expertise in various technologies and frameworks. I started by modifying the Core Team Grafana dashboard to allow team members to create their own dashboards with appropriate permissions. Additionally, I delved into Next.js, exploring its features and best practices for development.

I put my skills to work by creating a Movie Table web application using Next.js, designing an interactive table format to display movies and their descriptions. The application allowed users to add and delete movie entries dynamically, and I successfully integrated MongoDB to handle data retrieval and manipulation.

My exploration of the Google Drive API led me to create a functional integration, enabling file creation, upload, deletion, and access using file IDs. I also developed a Python code snippet to interact with the ChatGPT API, enhancing the capabilities of the application.

Throughout the process, I encountered some challenges but remained persistent. I successfully connected MongoDB with my Next.js application, allowing secure storage and retrieval of user data. I implemented authentication concepts in Next.js and even collaborated with another team to create a chatGPT API, further enhancing the user experience.

During my work on the project, I consistently strived for improvement and focused on enhancing the user interface, fixing bugs, and optimizing functionalities. I successfully implemented a feature to download only the files that haven't been downloaded before, saving users valuable time.

Furthermore, I prioritized code organization and version control, ensuring a clean and maintainable codebase. The result of my efforts is an application with enhanced features, improved usability, and a visually appealing design.

In conclusion, my work in this month highlights my proficiency in a wide range of technologies and my dedication to delivering efficient, reliable, and user-friendly applications.



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WEEK NO : 25

FOR THE WEEK ENDING			TRAINING LOCATION
Sunday 09/08/2023			Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT	
Monday	31/07/2023	<ul style="list-style-type: none"> ▪ LEAVE 	
Tuesday	01/08/2023	<ul style="list-style-type: none"> ▪ FULL-MOON-POYA-DAY 	
Wednesday	02/08/2023	<ul style="list-style-type: none"> ▪ Bug Fixes and Website Changes: I spent a significant portion of my day identifying and resolving various bugs present on the website. ▪ Learning about Prometheus: I dedicated time to research and study the theory behind Prometheus, a popular monitoring and alerting toolkit. I familiarized myself with its key concepts and features. ▪ Prometheus Demo Project: I worked on a demo project involving Prometheus. Specifically, I created a dashboard to display CPU utilization details of Docker containers. 	
Thursday	03/08/2023	<ul style="list-style-type: none"> ▪ Bug Fixes and Website Changes: I spent a significant portion of my day identifying and resolving various bugs present on the website. ▪ Learning about Prometheus: I dedicated time to research and study the theory behind Prometheus, a popular monitoring and alerting toolkit. I familiarized myself with its key concepts and features. ▪ Prometheus Demo Project: I worked on a demo project involving Prometheus. Specifically, I created a dashboard to display CPU utilization details of Docker containers. 	
Friday	04/08/2023	<ul style="list-style-type: none"> ▪ Register Page Enhancement: I made significant changes to the register page, transforming it into a user profile page. The updated page now allows users to add their details, creating a personalized profile for each user. ▪ Table Protection: I implemented measures to restrict access to certain tables. Users now cannot view specific tables unless they are logged in with the appropriate credentials. 	

		<ul style="list-style-type: none"> ▪ User Login Check: I worked on the user login functionality, ensuring that the system verifies if a user is already registered. If the user is registered, they are allowed access; otherwise, an alert is displayed to prompt them to register or sign in.
Saturday	05/08/2023	<ul style="list-style-type: none"> ▪ Weekend
Sunday	06/08/2023	<ul style="list-style-type: none"> ▪ Weekend

WEEK NO : 26

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday 16/08/2023		Office of the Company
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	07/08/2023	<ul style="list-style-type: none"> ▪ Bug Fixes: I successfully addressed and resolved several bugs related to user authentication, ensuring a smoother and more reliable authentication process. ▪ Database Enhancement: I performed updates to our database structure by creating a new collection specifically designed to store folder names along with corresponding batch IDs and the current date. ▪ File Collection Improvement: Within our MongoDB database, I enhanced the files collection by incorporating essential details such as the driver's view URL and batch ID for each downloaded file. ▪ File Download Optimization: I conducted research into enabling direct file downloads to users' local machines, focusing on establishing a streamlined method for specific file paths
Tuesday	08/08/2023	<ul style="list-style-type: none"> ▪ Refer about Server-Side Download: I conducted research on server-side file downloads to local machines and identified an optimal approach for implementation. ▪ UI Enhancement: I made improvements to the user interface by adding a "Start Progress" button. This button appears when users initiate the file download process from the server side. ▪ Independent Coding: I took the initiative to code the functionality myself. Upon clicking the "Start Progress" button, I successfully implemented a process that creates a file within the core directory of my code. The system checks whether the file already exists, and if not, it performs a download. This process was executed seamlessly. ▪ update Google Sign-In Authentication: I fixed some errors on integrating the option for users to sign in using their Google accounts.
Wednesday	09/08/2023	<ul style="list-style-type: none"> ▪ User Authentication Refinement: I addressed and resolved issues related to user authentication. Specifically, I worked on a solution to automatically redirect users to the home page if their information is present in the MongoDB database. ▪ Google Authentication Validation: I focused on the implementation of Google authentication for user validation, working with errors related to it.

		<ul style="list-style-type: none"> ▪ Comprehensive Feature Review: I conducted a thorough review of all features within the web page. I am pleased to report that all implemented features are working fine.
Thursday	10/08/2023	<ul style="list-style-type: none"> ▪ User Authentication Refinement: I addressed and resolved issues related to user authentication. Specifically, I worked on a solution to automatically redirect users to the home page if their information is present in the MongoDB database. ▪ Google Authentication Validation: I focused on the implementation of Google authentication for user validation. working with errors related to it. ▪ Comprehensive Feature Review: I conducted a thorough review of all features within the web page. I am pleased to report that all implemented features are working fine.
Friday	11/08/2023	<ul style="list-style-type: none"> ▪ User Authentication Refinement: I addressed and resolved issues related to user authentication. Specifically, I worked on a solution to automatically redirect users to the home page if their information is present in the MongoDB database. ▪ Google Authentication Validation: I focused on the implementation of Google authentication for user validation. working with errors related to it. ▪ Comprehensive Feature Review: I conducted a thorough review of all features within the web page. I am pleased to report that all implemented features are working fine. ▪ Project Review and Handover: Additionally, I took the time to carefully review the project's status, ensuring that all tasks were completed and that the project was in good shape for handover. This step ensures a smooth transition for the next team or developer taking over the project. ▪ Farewell Party: Lastly, I had the pleasure of joining a farewell party, which provided an opportunity to celebrate our team's achievements and bid farewell to colleagues in a memorable and positive way.
Saturday	12/08/2023	<ul style="list-style-type: none"> ▪ Weekend
Sunday	13/08/2023	<ul style="list-style-type: none"> ▪ Weekend

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERD AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

Updated GitLab Repository

Activities Firefox Web Browser https://sourcecontrol.hsenidmobile.com/codefest2023/the_squad/-/tree/UI-Dev

CodeFest2023 > the_squad > Repository

Adding the new changes to the repo
Musthakeem Ahamed authored 3 weeks ago

Name	Last commit	Last update
Testing	Adding the new changes to the repo	3 weeks ago
public	Adding Web-page code	1 month ago
src	Adding the new changes to the repo	3 weeks ago
styles	Adding Web-page code	1 month ago
.editorconfig	Adding Web-page code	1 month ago
.env	commite the changes	1 month ago
.eslintrc.json	Adding Web-page code	1 month ago
.gitignore	Adding Web-page code	1 month ago
.prettierrc.js	Adding Web-page code	1 month ago

Button added to start process in back-end.

Tables display sets of files in the above folder inside the Google Drive

Files Table

Folder Name * Project

START PROGRESS

FILE NAME	VIEW	DOWNLOAD
code.pdf		
Ahamed_Daily Dairy - May - June .pdf		
mongodb-linux-x86_64-ubuntu2004-5.0.15.tgz		

File table Updated (view link)

Tables display sets of files in the above folder

Folder Name Project

SUBMIT

Files Table

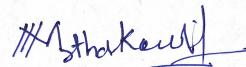
FILE NAME	VIEW	ACTIONS
code.pdf		
Ahamed_Daily Dairy - May - June .pdf		
mongodb-linux-x86_64-ubuntu2004-5.0.15.tgz		

Summary for the Month of August

This month, I dedicated a significant portion of my time to bug fixes and website improvements, ensuring a smoother user experience. Additionally, I delved into learning about Prometheus, a monitoring toolkit, and applied this knowledge to create a demo project displaying CPU utilization details for Docker containers. I also enhanced the user registration process, transforming it into a personalized profile page.

To bolster security, I implemented measures to restrict table access, improving user authentication and addressing related bugs. Database enhancements included creating a new collection for folder names and optimizing the file collection with essential details. I also researched and implemented server-side file downloads for an improved user experience.

Google authentication integration and validation were key focus areas, with fixes and refinements made to ensure a seamless sign-in process. I conducted a comprehensive feature review to ensure all aspects of the web page were functioning correctly. Lastly, I undertook a project review and handover, ensuring the project was ready for the next team or developer. The month concluded with a farewell party, celebrating our team's achievements and bidding farewell to colleagues on a positive note.



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INSPECTION REPORT

P. H. D. Pathum Dileepa

Inspector

NAME AND DESIGNATION OF OFFICER:

DATE

National Apprentice &

Industrial Training Authority

.....19/05/2023.....

REMARKS:

M.K.M Ahamed

The Daily Diary has been updated.



SIGNATURE

NAME AND DESIGNATION OF OFFICER:

DATE

REMARKS:


SIGNATURE