## WEEK TWO UPDATE 5G TESTBED PROJECT

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## **READING ASSIGNMENT**

- 1. TCP-IP/UDP Completed
- 2. C libraries related to networking <u>Completed</u>
- 3. Socket Programming Completed
- 4. Git Basics Completed
- 5. iperf Completed

1. Generate TCP/IP packets with random data filled with variable payload size

## 2. Iperf

Server

```
hemanth@hemanth-HP-Pavilion-Note... Q = - - ×

hemanth@hemanth-HP-Pavilion-Notebook:~$ iperf -c
iperf: option requires an argument -- c
Usage: iperf [-s|-c host] [options]
Try 'iperf --help' for more information.
hemanth@hemanth-HP-Pavilion-Notebook:~$ iperf -s

Server listening on TCP port 5001
TCP window size: 128 KByte (default)

[ 4] local 127.0.0.1 port 5001 connected with 127.0.0.1 port 47850
[ ID] Interval Transfer Bandwidth
[ 4] 0.0-10.0 sec 49.9 GBytes 42.8 Gbits/sec
```

Client

## 3. Git

a. Setting up a git repository

```
# change directory to codebase
$ cd /file/path/to/code

# make directory a git repository
$ git init
```

b. Creating a local branch

```
# Create a new branch
$ git branch <branch name>
# List all remote or local branches
$ git branch -a
```

c. Merging a branch with main branch

```
# Merge changes into current branch$ git merge <branch name>
```

d. push/pull requests

```
$ git push <remote URL/remote name> <branch>
# Push all local branches to remote repository
$ git push -all
```

e. Deleting a branch

```
# Delete a branch$ git branch -d <branch name>
```

- f. Creating a branch from
- i. Main branch
  - git checkout master
    git checkout -b branch1 master
    git push origin branch1
- ii. Another non-main branch
  - git checkout branch1
  - git checkout -b subbranch of b1 branch1
  - git push origin subbranch of b1