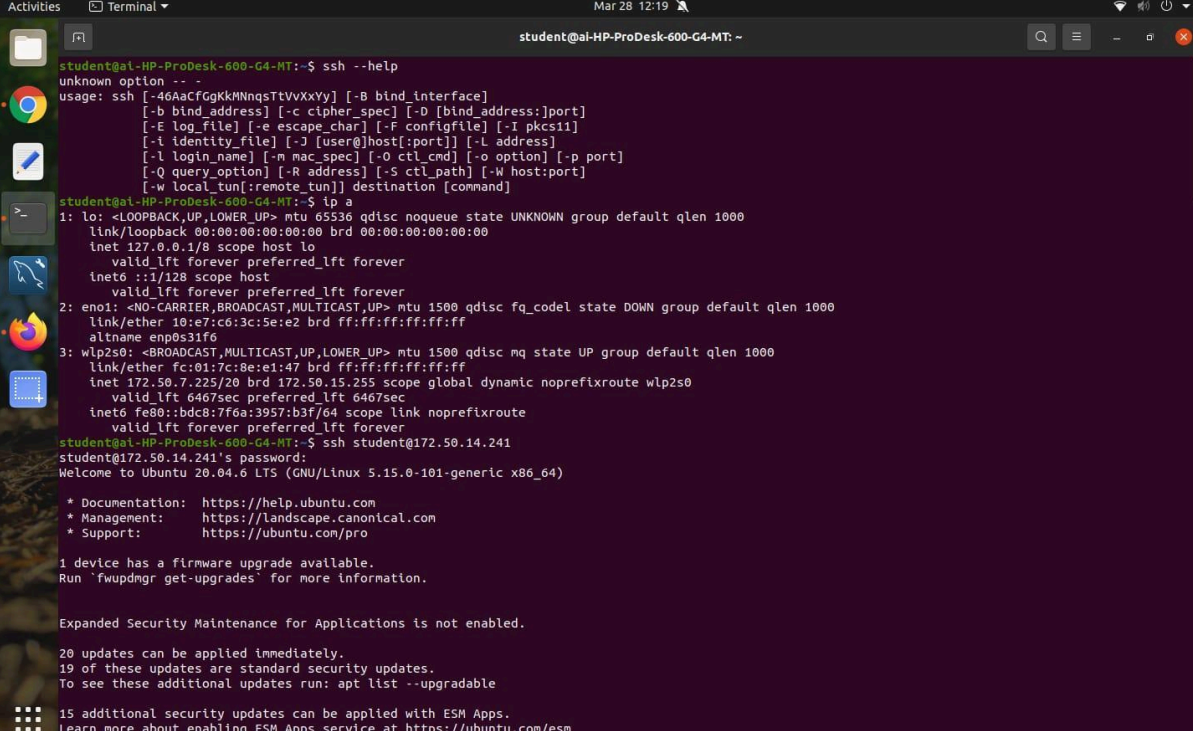


UNIX ASSIGNMENT->05

K.Vamshi

Roll No:422175

1. Using SSH command execute the three programs on two different machines.
2. Create a project under CVS/git repository and record multiple versions/branches and practice merging of branches (with a batch of 2 members) using gitbash commands and upload all your previous lab tasks to this repository .



```
student@ai-HP-ProDesk-600-G4-MT:~$ ssh --help
unknown option -- -
usage: ssh [-46AaCfGgKkMnnqsTtVvXxYy] [-B bind_interface]
          [-b bind_address] [-c cipher_spec] [-D [bind_address:]port]
          [-E log_file] [-e escape_char] [-F configfile] [-I pkcs11]
          [-i identity_file] [-J [user@]host[:port]] [-L address]
          [-l login_name] [-m mac_spec] [-O ctl_cmd] [-o option] [-p port]
          [-Q query_option] [-R address] [-S ctl_path] [-W host:port]
          [-w local_tun[:remote_tun]] destination [command]
```

```
student@ai-HP-ProDesk-600-G4-MT:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eno1: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc fq_codel state DOWN group default qlen 1000
    link/ether 10:e7:c6:3c:5e:e2 brd ff:ff:ff:ff:ff:ff
    altname enp0s31f6
3: wlp2s0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether fc:01:7c:8e:e1:47 brd ff:ff:ff:ff:ff:ff
    inet 172.50.7.225/20 brd 172.50.15.255 scope global dynamic noprefixroute wlp2s0
        valid_lft 6467sec preferred_lft 6467sec
    inet6 fe80::bdc8:7f6a:3957:b3f/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
student@ai-HP-ProDesk-600-G4-MT:~$ ssh student@172.50.14.241
student@172.50.14.241's password:
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-101-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

1 device has a firmware upgrade available.
Run 'fwupdmgr get-upgrades' for more information.

Expanded Security Maintenance for Applications is not enabled.

20 updates can be applied immediately.
19 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

15 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm
```

```
Activities Terminal Mar 28 12:19 student@ai-HP-ProDesk-600-G4-MT: ~
Your Hardware Enablement Stack (HWE) is supported until April 2025.
Last login: Wed Mar 20 16:27:01 2024 from 172.50.10.230
student@ai-HP-ProDesk-600-G4-MT:~$ ls
123456789.py 58##4.py bheap.c insertbypos.c roundrobin.c
123.py 58##4.py Bicycle.class Lab1.ai.py s1.sml
127.py 58##5.py booldisplay.c linearsearchfork.c s2.sml
1a 58##5.py 'CANCATENATE 4.py' linkedlist.py Safe.java
1aa 58##6.py Capital.java LOKI sat
1.py 58##6.py 'cd 422130.c' Lru.c sat1.txt
1.py.txt 58##7.py cd.c lru.c sat2.txt
2b 58##7.py CGHWSTRU.py check.py lru.ccc sat1.txt
2c.c 58##8.py check.py lscout.c Sample
2.hs 58##8.py childprocess.c lsearch.c SAMPLE
'2nd project.py' 58##9.py 'circular linked list.c' lsearchfork.c sa.txt
2.sml 58##9.py 'CNS lab.ipynb' mahesh sham.c
33.c 58.py create.sql cube.a68 Main2.java shm.c
3a.c 5.sml 621175.4 cycle.c Main6.java shmy.c
3_a.hs 621175.5 'cycle in LL.c' Main.class Show.class
3_b.hs 621175.6 'del by pos.c' Main.java Show.java
3.c 621175.6 delbypos.c maxheaps.c Shows.class
3.py 6211fh7gfh5.py Desktop maxinsert Shows.java
3.sml 621239.py dir1 maxinsert.c signal.c
411917.cpp 68-2.a68 dir1 'maxinsert heaps.c' Single.class
421168-1.c 68.a68 dree1 Methods.class Single.java
422129 9211429 lab exam answers.py dree2 Documents sJf.c
4.sml 9211516 5.1.py Downloads mmap.c snap
521118.py 9211519exec2.c ds MountainBike.class stack1.c
521127.m 9211519exec.c eclipse-workspace MULTI-THREADED Start.class
521127.py 9211519lpe2.c Employee.class multithreaded.c Strings.java
58##10.py 9211519lpe3.c endsendij.py Music Sujith.class
58##10.py 9211519pipe.c endsemmerge.py name.c Sujith.java
58##11.py 9211519signal1.c exec.c swap.c
58##12.py 9211519signal2.c EXEC.c odd.c tempd
58##13.py 9211519signal3.c exit.c optimal.c tempdir
58##14.py 921159median.c extractheap.c page.c Templates
58##15.py 921159sorted.c extractmin.c pagefault.c Test.class
58##16.py 9211616ccc.py fact.a68 'page hit.c' Test.java
58##17.py 9211616.py factors fcf.s Pictures time.hs
58##18.py '9211616 q1.py' fibonaccl ppe.c 'Turtle Program.py'
58##19.py '9211616 q2.py' fibonaccl.sh.save 'PlayOnLinux's virtual drives' unix1.c
58##20.py '9212454.py' fifo.c Producer.c Untitled10.ipynb
58##21.py 9212658.c FILE1.sql Public Untitled11.ipynb
58##22.py add add hl file.c 'l.py' Untitled1.ipynb
add hi Firefox_wallpaper.png '#.py' Untitled-1.java
add hs fork.c '#.py' Untitled2.ipynb
add.o forkcreate.c @.py Untitled3.ipynb
a.out as getpid3.c @.py Untitled4.ipynb
ass4-12.hi ass4-12.hs getpid4.c '^'.py Untitled5.ipynb
ass4-12.o graph.c __pycache__ Untitled6.ipynb
ass4-1.hi graphs.py q1.class Untitled7.ipynb
ass4-1.hs q1.java Untitled8.ipynb
ass4-1.o Qn1.class Untitled9.ipynb
ass4-2.hi hello.c Qn1.java 'Untitled Document 1'
ass4-2.hi hello.exe Qn2.java 'Untitled Document .c'
ass4-2.hs hello.o ques.2 Untitled.ipynb
ass4-2.o home1 Queue.class Videos
ass4-3.hi 'import java.util.java' Queue.java XORD
ass4-3.hs incompletefifo.c Queue.class XORD.class
ass4-3.o increasekey.c reverse.c XORD.java
asses.h Inheritance1.java Risk.class
backup.sh Inheritance.class Risk.java
bb.py Inheritance.java rotate
student@ai-HP-ProDesk-600-G4-MT:~$ gcc mmap.c -o
gcc: error: missing filename after '-o'
student@ai-HP-ProDesk-600-G4-MT:~$ gcc mmap.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
Allocated chunk1 at 0x7fee50168000
Allocated chunk2 at 0x7fee5013b000
Freed chunk1 and chunk2
student@ai-HP-ProDesk-600-G4-MT:~$ gcc page.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
Page Faults: 9
Page Hits: 4
student@ai-HP-ProDesk-600-G4-MT:~$ gcc cycle.c
cycle.c:8:12: error: expected '=', ',', ';', 'asm' or '__attribute__' before 'cycle'
8 | int findIf cycle(struct node*head){
  |             ^~~~~~
student@ai-HP-ProDesk-600-G4-MT:~$ gcc lru.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
Page Faults: 7
Page Hits: 6
student@ai-HP-ProDesk-600-G4-MT:~$ gcc maxheaps.c
maxheaps.c:1:1: error: unknown type name 'function'; did you mean 'union'?
1 | function InsertIntoMaxLeftistHeap(heap, sequence):
  | ^~~~~~
maxheaps.c: In function 'InsertIntoMaxLeftistHeap':
maxheaps.c:1:50: error: expected declaration specifiers before ':' token
```

```
Activities Terminal Mar 28 12:20 student@ai-HP-ProDesk-600-G4-MT: ~
58##22.py add.hi file.c 'l.py' Untitled1.ipynb
58##23.py add.hs Firefox_wallpaper.png '#.py' Untitled-1.java
58##24.py add.o fork.c '#.py' Untitled2.ipynb
58##25.py a.out forkcreate.c @.py Untitled3.ipynb
58##27.py as getpid3.c @.py Untitled4.ipynb
58##2.py ass4-12.hi getpid4.c '^'.py Untitled5.ipynb
58##2.py ass4-12.hs __pycache__ Untitled6.ipynb
58##30.py ass4-12.o graph.c q1.class Untitled7.ipynb
58##31.py ass4-1.hi graphs.py q1.java Untitled8.ipynb
58##32.py ass4-1.hs hello.c Qn1.class Untitled9.ipynb
58##33.py ass4-1.o hello.c Qn1.java 'Untitled Document 1'
58##34.py ass4-2.hi hello.exe Qn2.java 'Untitled Document .c'
58##35.py ass4-2.hi hello.o ques.2 Untitled.ipynb
58##36.py ass4-2.o home1 Queue.class Videos
58##37.py ass4-3.hi 'import java.util.java' Queue.java XORD
58##38.py ass4-3.hs incompletefifo.c Queue.class XORD.class
58##39.py ass4-3.o increasekey.c reverse.c XORD.java
58##3.py asses.h Inheritance1.java Risk.class
58##3.py backup.sh Inheritance.class Risk.java
58##40.py bb.py Inheritance.java rotate
student@ai-HP-ProDesk-600-G4-MT:~$ gcc mmap.c -o
gcc: error: missing filename after '-o'
student@ai-HP-ProDesk-600-G4-MT:~$ gcc mmap.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
Allocated chunk1 at 0x7fee50168000
Allocated chunk2 at 0x7fee5013b000
Freed chunk1 and chunk2
student@ai-HP-ProDesk-600-G4-MT:~$ gcc page.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
Page Faults: 9
Page Hits: 4
student@ai-HP-ProDesk-600-G4-MT:~$ gcc cycle.c
cycle.c:8:12: error: expected '=', ',', ';', 'asm' or '__attribute__' before 'cycle'
8 | int findIf cycle(struct node*head){
  |             ^~~~~~
student@ai-HP-ProDesk-600-G4-MT:~$ gcc lru.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
Page Faults: 7
Page Hits: 6
student@ai-HP-ProDesk-600-G4-MT:~$ gcc maxheaps.c
maxheaps.c:1:1: error: unknown type name 'function'; did you mean 'union'?
1 | function InsertIntoMaxLeftistHeap(heap, sequence):
  | ^~~~~~
maxheaps.c: In function 'InsertIntoMaxLeftistHeap':
maxheaps.c:1:50: error: expected declaration specifiers before ':' token
```

```
Activities Terminal Mar 28 12:21 student@ai-HP-ProDesk-600-G4-MT: ~
student@ai-HP-ProDesk-600-G4-MT:~$ gcc 9212658.c
/usr/bin/ld: /usr/lib/gcc/x86_64-linux-gnu/9/../../../../x86_64-linux-gnu/Scrt1.o: in function '_start':
(.text+0x24): undefined reference to 'main'
collect2: error: ld returned 1 exit status
student@ai-HP-ProDesk-600-G4-MT:~$ gcc shn.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
Segmentation fault (core dumped)
student@ai-HP-ProDesk-600-G4-MT:~$ gcc graph.c
graph.c:2:9: fatal error: iostream: No such file or directory
 2 | #include <iostream>
  | ^~~~~~
compilation terminated.
student@ai-HP-ProDesk-600-G4-MT:~$ gcc reverse.c
reverse.c:7:20: warning: 'struct node' declared inside parameter list will not be visible outside of this definition or declaration
 7 | int reverse(struct node**head){
  | ^~~~~~
reverse.c: In function 'reverse':
reverse.c:11:6: error: 'p1' undeclared (first use in this function)
11 | if (p1!=NULL){
  | ^~~
reverse.c:11:6: note: each undeclared identifier is reported only once for each function it appears in
reverse.c:12:3: error: 'p2' undeclared (first use in this function)
12 | p2->next=p1;
  | ^~~
reverse.c:15:3: error: 'p3' undeclared (first use in this function)
15 | p3=p2->next;
  | ^~~
reverse.c:17:2: error: 'p' undeclared (first use in this function)
17 | p->next=NULL;
  | ^
student@ai-HP-ProDesk-600-G4-MT:~$ gcc name.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
purushotham
student@ai-HP-ProDesk-600-G4-MT:~$ gcc swap.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
enter the value of a; 12
enter the value of b; 32
before... swapping a: 12, b: 32
after swapping... a: 32, b: 12
student@ai-HP-ProDesk-600-G4-MT:~$ gcc exit.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
start the program
stop the program
student@ai-HP-ProDesk-600-G4-MT:~$
```

```
Activities Terminal Mar 28 12:20 student@ai-HP-ProDesk-600-G4-MT: ~
student@ai-HP-ProDesk-600-G4-MT:~$ gcc lru.c
student@ai-HP-ProDesk-600-G4-MT:~$ ./a.out
Page Faults: 7
Page Hits: 6
student@ai-HP-ProDesk-600-G4-MT:~$ gcc maxheaps.c
maxheaps.c:1:1: error: unknown type name 'function'; did you mean 'union'?
 1 | function InsertIntoMaxLeftistHeap(heap, sequence);
  | ^~~~~~
maxheaps.c: In function 'InsertIntoMaxLeftistHeap':
maxheaps.c:1:50: error: expected declaration specifiers before ':' token
 1 | function InsertIntoMaxLeftistHeap(heap, sequence):
  | ^~~~~~
maxheaps.c:1:10: warning: type of 'heap' defaults to 'int' [-Wimplicit-int]
 1 | function InsertIntoMaxLeftistHeap(heap, sequence):
  | ^~~~~~
maxheaps.c:1:10: warning: type of 'sequence' defaults to 'int' [-Wimplicit-int]
student@ai-HP-ProDesk-600-G4-MT:~$ gcc multithreaded.c
/usr/bin/ld: /tmp/ccFux7II.o: in function 'main':
multithreaded.c:(.text+0x122): undefined reference to 'pthread_create'
/usr/bin/ld: multithreaded.c:(.text+0x14c): undefined reference to 'pthread_join'
collect2: error: ld returned 1 exit status
student@ai-HP-ProDesk-600-G4-MT:~$ gcc stack1.c
stack1.c:3:21: warning: 'struct node' declared inside parameter list will not be visible outside of this definition or declaration
 3 | int reverse (struct node**head){
  | ^~~~~~
stack1.c: In function 'reverse':
stack1.c:7:18: error: expected ')' before '*' token
 7 | struct node (*p1 p2*p3);
  | ^~~~~~
stack1.c:8:2: error: 'p1' undeclared (first use in this function)
 8 | p1=*head;
  | ^~~
stack1.c:8:2: note: each undeclared identifier is reported only once for each function it appears in
stack1.c:10:3: error: 'p2' undeclared (first use in this function)
10 | p2=p1->next;
  | ^~~
stack1.c:13:3: error: 'p3' undeclared (first use in this function)
13 | p3=p2->next;
  | ^~~
stack1.c:24:1: error: expected declaration or statement at end of input
24 | }
  | ^
student@ai-HP-ProDesk-600-G4-MT:~$ gcc 9212658.c
/usr/bin/ld: /usr/lib/gcc/x86_64-linux-gnu/9/../../../../x86_64-linux-gnu/Scrt1.o: in function '_start':
```