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ROLLNO:422170

SECTION: A

1. Using SSH command execute the three programs on two different machines.

2. Create a project under CVS/git repository and record multiple versions/branchesand practice merging of branches (with a batch of 2 members) using gitbash commands and upload all your previous lab tasks to this repository.

1.

student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/UNIX/week_6

```
student@ai-HP-ProDesk-600-G4-MT:~$ ssh student@172.50.10.70
^C
student@ai-HP-ProDesk-600-G4-MT:~$ ssh student@172.50.10.64
The authenticity of host '172.50.10.64 (172.50.10.64)' can't be established.
ECDSA key fingerprint is SHA256:kzDuHgZ38HzvCNIdKZ7bbWFZzFPoThoKaP5wZucx0A8.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.50.10.64' (ECDSA) to the list of known hosts.
student@172.50.10.64's password:

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:c6:39:92:1b 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:e1:59 brd ff:ff:ff:ff:ff:ff
    inet 172.50.15.41/20 brd 172.50.15.255 scope global dynamic noprefixroute wlp2s0
       valid_lft 11817sec preferred_lft 11817sec
    inet6 fe80::df61:5145:aa40:c5c9/64 scope link noprefixroute
       valid_lft forever preferred_lft forever
student@ai-HP-ProDesk-600-G4-MT:~$ ssh student@172.50.10.64
student@172.50.10.64's password:
Welcome to Ubuntu 20.04.5 LTS (GNU/Linux 5.15.0-88-generic x86_64)

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

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

New release '22.04.3 LTS' available.
Run 'do-release-upgrade' to upgrade to it.


3 updates could not be installed automatically. For more details,
see /var/log/unattended-upgrades/unattended-upgrades.log
Your Hardware Enablement Stack (HWE) is supported until April 2025.
Last login: Wed Mar 20 16:10:24 2024 from 172.50.10.70
student@ai-HP-ProDesk-600-G4-MT:~$ ls
```

student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/UNIX/week_6

```
Stack1.java
stackusinglinkedlist.c
students.txt
s.txt
tail
tail.txt
tekst.txt
Templates
text.pdf
third
'ThreadDivisors$DivisorThread.class'
ThreadDivisors.class
ThreadDivisors.java
threed.class
time_server.py.ipynb
trees.py
treetraversal.py
't signal names. This option has optional argument, which will convert signal number to signal name, or other way round.'
twodpoint.class
Untitled1.ipynb
Untitled2.ipynb
Untitled3.ipynb
Untitled4.ipynb
Untitled5.ipynb
Untitled6.ipynb
Untitled7.ipynb
'Untitled Folder'
Untitled.ipynb
Videos
wekafiles
xaa
xv6-public-master
yamini.m
yamini.py
zara.
zoop.af
zou.at
student@ai-HP-ProDesk-600-G4-MT:~$ cd Desktop
student@ai-HP-ProDesk-600-G4-MT:~/Desktop$ ls
422113.java   a       a.out       BitStuff.java   s1223.py          slid.java      sshRev3.png   stuffing.class   UNIX
622133        ABCD    ap.html     DBMS            s1233.py          sshRev1.png    sshRev4.png   task22.cpp       unixpics1
6.py          afv.py  BitStuff.class  'np lab'     sandeep.queue5.1.24  sshRev2.png  sshRev5.png   tcp.java
student@ai-HP-ProDesk-600-G4-MT:~/Desktop$ cd UNIX
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX$ ls
week_5   week_6   week_7
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX$ cd week_6
```

```
    zoop.af
    zou.at
student@ai-HP-ProDesk-600-G4-MT:~$ cd Desktop
student@ai-HP-ProDesk-600-G4-MT:~/Desktop$ ls
    422113.java    a          a.out         BitStuff.java   s1223.py              slid.java     sshRev3.png   stuffing.class   UNIX
    622133         ABCD       ap.html       DBMS            s1233.py              sshRev1.png   sshRev4.png   task22.cpp       unixpics1
    6.py           afv.py     BitStuff.class  'np lab'      sandeep.queue5.1.24   sshRev2.png   sshRev5.png   tcp.java
student@ai-HP-ProDesk-600-G4-MT:~/Desktop$ cd  UNIX
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX$ ls
week_5  week_6  week_7
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX$ cd week_6
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_6$ ls
Build_And_Run.sh  fact.c  Functions.h  main.c  NQueens.c  push_pop.c  sum.c  Unix_Week_6.png
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_6$ gcc main.c
/usr/bin/ld: /tmp/ccQMqLrP.o: in function `main':
main.c:(.text+0x4a): undefined reference to `solveNQueens'
collect2: error: ld returned 1 exit status
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_6$ cd
student@ai-HP-ProDesk-600-G4-MT:~$ cd Desktop/UNIX/week_5
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_5$ ls
awk_out.txt  awk.sh  file1.txt  file2.txt  file.tar  file.tar.gz  file.tar.tbz  sed_out.txt  sed.sh  tar_out.txt  tar.sh
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_5$ ./awk.sh
1)422164  PARDHU     CSE    28
2)422131  YESWANTH   ECE    27
3)422134  KARTHIK    EEE    24
4)422167  DIWAKAR    MME    21
5)622268  VENKAT     MECH   23
6)722178  RUDRA      CIVIL 19
7)522164  DEEPAK     EEE    24
8)522145  DHEERAJ    EEE    22
9)322133  RAHUL      CSE    26

awk: cmd. line:1: (FILENAME=file1.txt FNR=1) fatal: printf: no arguments
1)422164 CSE
2)422131 ECE
3)422134 EEE
4)422167 MME
5)622268 MECH
6)722178 CIVIL
7)522164 EEE
8)522145 EEE
9)322133 CSE

214
```

```
214
19.4545
)42
)42
)42
)42
)62
)72
)52
)52
)32

28
27
24
21
23
19
24
22
26

senior
senior
junior
junior
junior
junior
junior
junior
senior
junior
junior
784
729
576
441
529
361
576
484
676
0
0
```

```
0
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_5$ ./sed.sh
1)422164   PARDHU      CSE    28
2)422131   YESWANTH    ECE    27
3)422134   KARTHIK     EEE    24
4)422167   DIWAKAR     MME    21
5)622268   VENKAT      MECH   23
6)722178   RUDRA       CIVIL  19
7)522164   DEEPAK      EEE    24
8)522145   DHEERAJ     EEE    22
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7)522164   DEEPAK      EEE    24
8)522145   DHEERAJ     EEE    22
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```

```
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2)422131   YESWANTH    ECE    27
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5)622268   VENKAT      MECH   23
6)722178   RUDRA       CIVIL  19
7)522164   DEEPAK      EEE    24
8)522145   DHEERAJ     EEE    22
9)322133   RAHUL       CSE    26


student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_5$ cd Desktop/UNIX/week_6
-bash: cd: Desktop/UNIX/week_6: No such file or directory
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_5$ cd
student@ai-HP-ProDesk-600-G4-MT:~$ cd Desktop
student@ai-HP-ProDesk-600-G4-MT:~/Desktop$ cd  UNIX
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX$ cd week_6
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_6$ ls
Build_And_Run.sh  Functions.h     libFunctions.so  main_dynamic  NQueens.c  push_pop.c  sum.c
fact.c            libFunctions.a  main.c           main_static   NQueens.o  push_pop.o  Unix_Week_6.png
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_6$ ./Build_And_Run.sh
Executing main program with static library...
Enter no.of Queens : 5
1 0 0 0 0
0 0 0 1 0
0 1 0 0 0
0 0 0 0 1
0 0 1 0 0

Executing main program with dynamic library...
Enter no.of Queens : 5
1 0 0 0 0
0 0 0 1 0
0 1 0 0 0
0 0 0 0 1
0 0 1 0 0

Compilation successful
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/UNIX/week_6$ |
```

2.


```
student@ai-HP-ProDesk-600-G4-MT:~/422170_unix$ cd
student@ai-HP-ProDesk-600-G4-MT:~$ cd 422170unix
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git init
Initialized empty Git repository in /home/student/422170unix/.git/
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git checkout -b newbranch
Switched to a new branch 'newbranch'
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git add .
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git commit -m "initial version"
[newbranch (root-commit) 27ddc6e] initial version
 8 files changed, 38 insertions(+)
 create mode 100644 file.txt
 create mode 100644 file1.txt
 create mode 100644 file11.txt
 create mode 100644 file2.txt
 create mode 100644 new.txt
 create mode 100644 num.txt
 create mode 100644 numbers.txt
 create mode 100644 out.txt
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git checkout main
error: pathspec 'main' did not match any file(s) known to git
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git config --global user.email "katlasaikrishna674@gmail.com"
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git config --global user.name "SaiKrishna-666"
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git config --list
user.name=SaiKrishna-666
user.email=katlasaikrishna674@gmail.com
core.repositoryformatversion=0
core.filemode=true
core.bare=false
core.logallrefupdates=true
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git add .
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git commit -m "initial version"
On branch newbranch
nothing to commit, working tree clean
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git checkout main
error: pathspec 'main' did not match any file(s) known to git
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git branch
* newbranch
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git checkout master
error: pathspec 'master' did not match any file(s) known to git
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git checkout -b master
Switched to a new branch 'master'
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git merge newbranch
Already up to date.
```



```
Switched to a new branch 'master'
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git merge newbranch
Already up to date.
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git push origin master
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git remote add origin https://github.com/Saikrishna-666/unix.git
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git branch -M main
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git push -u origin main
Username for 'https://github.com': Saikrishna-666
Password for 'https://Saikrishna-666@github.com':
remote: Support for password authentication was removed on August 13, 2021.
remote: Please see https://docs.github.com/get-started/getting-started-with-git/about-remote-repositories#cloning-with-https-urls for information on c
urrently recommended modes of authentication.
fatal: Authentication failed for 'https://github.com/Saikrishna-666/unix.git/'
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git show
commit 506acf495befb338269357631e5dc96d760a7199 (HEAD -> main, origin/main)
Author: SaiKrishna-666 <katlasaikrishna674@gmail.com>
Date:   Wed Apr 3 15:04:43 2024 +0530

    initial commit

diff --git a/a.out b/a.out
new file mode 100755
index 0000000..d662355
Binary files /dev/null and b/a.out differ
diff --git a/add.c b/add.c
new file mode 100644
index 0000000..07abcd1
--- /dev/null
+++ b/add.c
@@ -0,0 +1,11 @@
+#include <stdio.h>
+int main(){
+ int x,y;
+ printf("enter number one :");
+ scanf("%d",&x);
+ printf("enter number two :");
+ scanf("%d",&y);
+ printf("sum of two numbers is %d",x+y);
```

```
+ return o;
+}
+
diff --git a/array.sh b/array.sh
new file mode 100755
index 0000000..82a6d97
--- /dev/null
+++ b/array.sh
@@ -0,0 +1,21 @@
+echo "number of elements in array: "
+read n
+echo "enter $n elements"
+for ((i=0;i<n;i++));
+do
+ read arr[$i]
+done
+
+for((i=0;i<n;i++));do
+ for((j=$i;j<n;j++));do
+  if [${arr[$i]} -gt ${arr[$j]}];
+  then
+    temp=${arr[$i]}
+    arr[$i]=${arr[$j]}
+    arr[$j]=$temp
+  fi
+ done
+done
+secondl=${arr[$((n-2))]}
+echo "second largest is $secondl"
+
diff --git a/fact_obj.o b/fact_obj.o
new file mode 100644
index 0000000..e73c889
Binary files /dev/null and b/fact_obj.o differ
diff --git a/factorial.sh b/factorial.sh
new file mode 100755
index 0000000..3eec41d
--- /dev/null
+++ b/factorial.sh
@@ -0,0 +1,15 @@
+fact(){
+ n=$1
+ fact=1
```

```
+s13 em3 11020 22
+s04 em4 13000 23
+s05 em5 19000 26
+s06 em6 20000 25
+s07 em7 25000 27
+s08 em8 32000 28
+
+s01 em1 10000 25
+s02 em2 12000 24
+s03 em3 11020 22
+0 em4 13000 23
+s05 em5 19000 26
+s06 em6 20000 25
+s07 em7 25000 27
+s08 em8 32000 28
diff --git a/string.c b/string.c
new file mode 100644
index 0000000..84d2087
--- /dev/null
+++ b/string.c
@@ -0,0 +1,16 @@
+#include <stdio.h>
+#include <string.h>
+
+int consonant_count(const char *string){
+ int length=strlen(string);
+ int count=0;
+ for(int i=0;string[i]!='\0';i++){
+  if(strchr("bBcCdDfFgGhHjJkKlLmMnNpPqQrRsStTwWxXyYzZ",string[i])){
+   count++;
+  }
+ }
+ return (length-count);
+}
+
+
+
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
student@ai-HP-ProDesk-600-G4-MT:~/422170unix$
```