

Lab Assignment 12 (02/24/2023)
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Tasks:

1. Develop a program for Stack (using student database instead of numerics). Use Makefile. Submit source codes and screenshots.
2. Push the code to GitHub.
3. File transfer and Up-to-date in Nova cluster

Submission Files and Results:

1. Screenshot for a program for linked lists(using letters instead of numerics)

```
(base) ubuntu@ubuntu-vm:~/Documents/chandanaWorkspace/CPRE 525 Spring 2023/CPRE525Spring2023/11. Lab Assignment 12$ ./main.exe
0 - List Options
1 - Push (a single node)
2 - Pop (the top node)
3 - Peek (at the top node)
4 - Display (the entire stack)
5 - Get stack size
6 - Exit
-----
ENTER CHOICE : 1
Enter ID: 101
Enter First Name : Sai
Enter Last Name : V
Enter course Taken : CPRE525
-----[PUSH operation performed]-----
ENTER CHOICE : 1
Enter ID: 102
Enter First Name : Kumar
Enter Last Name : G
Enter course Taken : CPRE539
-----[PUSH operation performed]-----
ENTER CHOICE : 103
Error: incorrect option. Try again.
-----
ENTER CHOICE : 1
Enter ID: 103
Enter First Name : Chandana
Enter Last Name : VK
Enter course Taken : CPRE999
-----[PUSH operation performed]-----
-----[PUSH operation performed]-----
ENTER CHOICE : 4
-----[Display operation performed]-----
-----
| Pos: | Student ID: | First Name: | Last Name: | Course Taken: | DB Address: | Address: | Next: |
-----
| 1 | 103 | Chandana | VK | CPRE999 | 0x56112b7c0000 | 0x56112b7c0140 | 0x56112b7bfea0 |
| 2 | 102 | Kumar | G | CPRE539 | 0x56112b7bfd60 | 0x56112b7bfea0 | 0x56112b7bfd40 |
| 3 | 101 | Sai | V | CPRE525 | 0x56112b7bfc00 | 0x56112b7bfd40 | (nil) |
-----
ENTER CHOICE : 5
-----[Stack Size operation performed]-----
Stack size is 3
-----
ENTER CHOICE : 3
-----[PEEK operation performed]-----
Top Student ID is 103
Top First Name is Chandana
Top Last Name is VK
Top Course Taken is CPRE999
-----
```

```

-----
ENTER CHOICE : 2
-----[POP operation performed]-----
Pop Student ID = 103
Pop First Name is Chandana
Pop Last Name is VK
Pop Course Taken is CPRE999
-----

ENTER CHOICE : 4
---[Display operation performed]-----
-----
| Pos: | Student ID: | First Name: | Last Name: | Course Taken: | DB Address: | Address: | Next: |
-----
| 1 | 102 | Kumar | G | CPRE539 | 0x56112b7bfd60 | 0x56112b7bfea0 | 0x56112b7bfd40 |
| 2 | 101 | Sai | V | CPRE525 | 0x56112b7bfc00 | 0x56112b7bfd40 | (nil) |
-----

```

2. Push the code to GitHub

a. Git status check

```

(base) ubuntu@ubuntu-vm:~/Documents/ChandanaWorkspace/CPRE 525 Spring 2023/CPRE525Spring2023/11. Lab Assignment 11$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   10. lab Assignment 11/GetKey.c
    modified:   10. lab Assignment 11/Print.c
    modified:   10. lab Assignment 11/Print.o
    modified:   10. lab Assignment 11/main.exe

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    10. lab Assignment 11/10. Lab Assignment 11 Submission.pdf
    11. Lab Assignment 12/

no changes added to commit (use "git add" and/or "git commit -a")

```

b. Git add and git status

```
(base) ubuntu@ubuntu-vm:~/Documents/chandanaWorkspace/CPRE 525 Spring 2023/CPRE525Spring2023$ git add .
(base) ubuntu@ubuntu-vm:~/Documents/chandanaWorkspace/CPRE 525 Spring 2023/CPRE525Spring2023$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   10. Lab Assignment 11/10. Lab Assignment 11 Submission.pdf
    modified:   10. Lab Assignment 11/GetKey.c
    modified:   10. Lab Assignment 11/Print.c
    modified:   10. Lab Assignment 11/Print.o
    modified:   10. Lab Assignment 11/main.exe
    new file:   11. Lab Assignment 12/.vscode/settings.json
    new file:   11. Lab Assignment 12/DeleteStack.c
    new file:   11. Lab Assignment 12/DeleteStack.o
    new file:   11. Lab Assignment 12/DisplayOptions.c
    new file:   11. Lab Assignment 12/DisplayOptions.o
    new file:   11. Lab Assignment 12/DisplayStack.c
    new file:   11. Lab Assignment 12/DisplayStack.o
    new file:   11. Lab Assignment 12/GetStackSize.c
    new file:   11. Lab Assignment 12/GetStackSize.o
    new file:   11. Lab Assignment 12/Makefile
    new file:   11. Lab Assignment 12/Option.c
    new file:   11. Lab Assignment 12/Option.o
    new file:   11. Lab Assignment 12/Peek.c
    new file:   11. Lab Assignment 12/Peek.o
    new file:   11. Lab Assignment 12/Pop.c
    new file:   11. Lab Assignment 12/Pop.o
    new file:   11. Lab Assignment 12/Push.c
    new file:   11. Lab Assignment 12/Push.o
    new file:   11. Lab Assignment 12/main.c
    new file:   11. Lab Assignment 12/main.exe
    new file:   11. Lab Assignment 12/main.o
    new file:   11. Lab Assignment 12/node.h
```

c. Git committed the files

```
(base) ubuntu@ubuntu-vm:~/Documents/chandanaWorkspace/CPRE 525 Spring 2023/CPRE525Spring2023$ git commit -m "Adding Files"
[main 49f59b6] Adding Files
27 files changed, 344 insertions(+), 1 deletion(-)
create mode 100644 10. Lab Assignment 11/10. Lab Assignment 11 Submission.pdf
rewrite 10. Lab Assignment 11/Print.o (82%)
create mode 100644 11. Lab Assignment 12/.vscode/settings.json
create mode 100644 11. Lab Assignment 12/DeleteStack.c
create mode 100644 11. Lab Assignment 12/DeleteStack.o
create mode 100644 11. Lab Assignment 12/DisplayOptions.c
create mode 100644 11. Lab Assignment 12/DisplayOptions.o
create mode 100644 11. Lab Assignment 12/DisplayStack.c
create mode 100644 11. Lab Assignment 12/DisplayStack.o
create mode 100644 11. Lab Assignment 12/GetStackSize.c
create mode 100644 11. Lab Assignment 12/GetStackSize.o
create mode 100644 11. Lab Assignment 12/Makefile
create mode 100644 11. Lab Assignment 12/Option.c
create mode 100644 11. Lab Assignment 12/Option.o
create mode 100644 11. Lab Assignment 12/Peek.c
create mode 100644 11. Lab Assignment 12/Peek.o
create mode 100644 11. Lab Assignment 12/Pop.c
create mode 100644 11. Lab Assignment 12/Pop.o
create mode 100644 11. Lab Assignment 12/Push.c
create mode 100644 11. Lab Assignment 12/Push.o
create mode 100644 11. Lab Assignment 12/main.c
create mode 100755 11. Lab Assignment 12/main.exe
create mode 100644 11. Lab Assignment 12/main.o
create mode 100644 11. Lab Assignment 12/node.h
```

d. Git push


```
(base) ubuntu@ubuntu-vm:~/Documents/chandanaWorkspace/CPRE 525 Spring 2023/CPRE525Spring2023$ git push
Username for 'https://github.com': Saichandana999
Password for 'https://Saichandana999@github.com':
Enumerating objects: 38, done.
Counting objects: 100% (38/38), done.
Delta compression using up to 8 threads
Compressing objects: 100% (31/31), done.
Writing objects: 100% (32/32), 746.32 KiB | 13.82 MiB/s, done.
Total 32 (delta 13), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (13/13), completed with 6 local objects.
To https://github.com/Saichandana999/CPRE525Spring2023.git
0516eae..49f59b6 main -> main
```















e. Final GitHub repository

Saichandana999 / CPRE525Spring2023 Private

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main 1 branch 0 tags Go to file Add file <> Code

 Saichandana999 Adding Files 49f59b6 2 minutes ago 14 commits

 .vscode	Adding Files	last week
 1. Lab Assignment 2	Adding my files	last month
 10. lab Assignment 11	Adding Files	2 minutes ago
 11. Lab Assignment 12	Adding Files	2 minutes ago
 2. Lab Assignment 3	Adding my files	last month
 3. Lab Assignment 4	Adding Files	2 weeks ago
 4. Lab Assignment 5	5. Lab Assignment 6	3 weeks ago
 5. Lab Assignment 6	Adding files	2 weeks ago
 6. Lab Assignment 7	Adding Files	2 weeks ago
 7. Lab Assignment 8	Adding Files	last week
 8. Lab Assignment 9	Adding Files	last week
 9. lab Assignment 10	Adding Files	2 days ago
 LICENSE	Initial commit	last month
 README.md	Initial commit	last month

3. Files transferred and up-to-date in Nova cluster.

<I couldn't update Nova cluster as it gives error and unable to connect>