

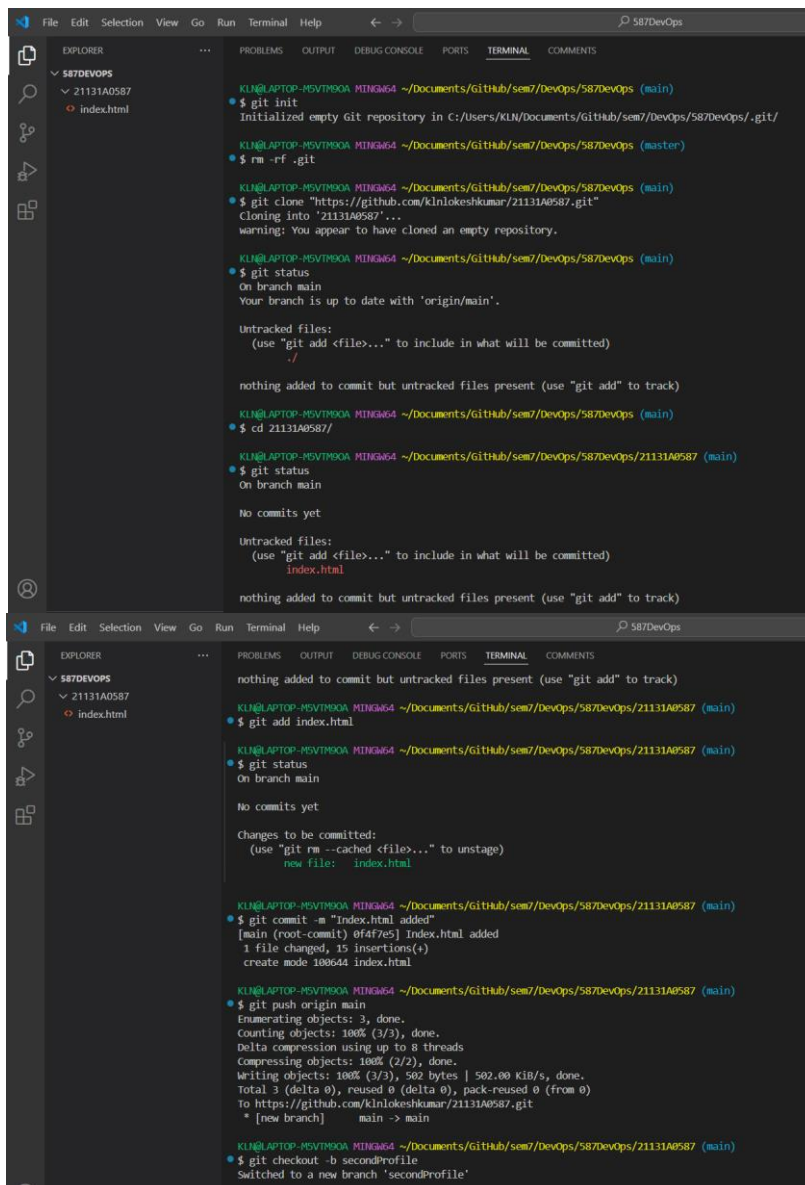
## Assignment 1 – 21131A0587

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Q1 : Demonstrate basic Git Commands

Note:

Create a folder with your roll no. Using the Gitbash terminal execute basic git commands Take the screenshots of the outputs. submit it as pdf file



The image displays two screenshots of a Visual Studio Code terminal window, showing the execution of basic Git commands. The terminal is titled "587DevOps" and the user is KLN@LAPTOP-MSVTHQQA MINGW64.

**First Screenshot:**

```
KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps (main)
• $ git init
Initialized empty Git repository in C:/Users/KLN/Documents/Github/sem7/DevOps/587DevOps/.git/

KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps (master)
• $ rm -rf .git

KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps (main)
• $ git clone "https://github.com/kllokeshkumar/21131A0587.git"
Cloning into '21131A0587'...
warning: You appear to have cloned an empty repository.

KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps (main)
• $ git status
On branch main
Your branch is up to date with 'origin/main'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
  ./

nothing added to commit but untracked files present (use "git add" to track)

KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps (main)
• $ cd 21131A0587/

KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git status
On branch main

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
  index.html

nothing added to commit but untracked files present (use "git add" to track)
```

**Second Screenshot:**

```
KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git add index.html

KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git status
On branch main

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
  new file:   index.html

KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git commit -m "Index.html added"
[main (root-commit) 0f4f7e5] Index.html added
1 file changed, 15 insertions(+)
create mode 100644 index.html

KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git push origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 502 bytes | 502.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
to https://github.com/kllokeshkumar/21131A0587.git
* [new branch]    main -> main

KLN@LAPTOP-MSVTHQQA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git checkout -b secondProfile
Switched to a new branch 'secondProfile'
```

```
File Edit Selection View Go Run Terminal Help 587DevOps

EXPLORER
587DEVOPS
  21131A0587
    index.html

PROBLEMS OUTPUT DEBUG CONSOLE PORTS TERMINAL COMMENTS

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git status
On branch secondProfile
nothing to commit, working tree clean

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git status
On branch secondProfile
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:   index.html

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

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git checkout main
M    index.html
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ 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:   index.html

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

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git checkout secondProfile
M    index.html
Switched to branch 'secondProfile'

File Edit Selection View Go Run Terminal Help 587DevOps

EXPLORER
587DEVOPS
  21131A0587
    index.html

PROBLEMS OUTPUT DEBUG CONSOLE PORTS TERMINAL COMMENTS

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git status
On branch secondProfile
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:   index.html

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

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git add index.html

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git commit -m "added p"
[secondProfile 3df25fe] added p
1 file changed, 1 insertion(+)

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git push origin secondProfile
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 377 bytes | 377.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'secondProfile' on GitHub by visiting:
remote:   https://github.com/kinlokeskumar/21131A0587/pull/new/secondProfile
remote:
To https://github.com/kinlokeskumar/21131A0587.git
 * [new branch]      secondProfile -> secondProfile

KLN@LAPTOP-MSVTHQOA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

> TIMELINE
```

```
File Edit Selection View Go Run Terminal Help 587DevOps

EXPLORER
587DEVOPS
  21131A0587
    index.html

PROBLEMS OUTPUT DEBUG CONSOLE PORTS TERMINAL COMMENTS

KLN@LAPTOP-PSVTH9QA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

KLN@LAPTOP-PSVTH9QA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

KLN@LAPTOP-PSVTH9QA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git merge secondProfile
Updating 0f47e5..3df25fe
Fast-forward
 index.html | 1 +
 1 file changed, 1 insertion(+)

KLN@LAPTOP-PSVTH9QA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git branch
* main
  secondProfile

KLN@LAPTOP-PSVTH9QA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git checkout secondProfile
Switched to branch 'secondProfile'

KLN@LAPTOP-PSVTH9QA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (secondProfile)
• $ git pull origin main
From https://github.com:klmlkeshkumar/21131A0587
 * branch      main       -> FETCH_HEAD
Already up to date.

KLN@LAPTOP-PSVTH9QA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git branch -d secondProfile
Deleted branch secondProfile (was 3df25fe).

KLN@LAPTOP-PSVTH9QA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $ git branch
* main

KLN@LAPTOP-PSVTH9QA MINGW64 ~/Documents/Github/sem7/DevOps/587DevOps/21131A0587 (main)
• $
```

Q2 : Demonstrate the usage of vagrant for the creation of virtual machines.

```
index.html Vagrantfile U ! playbook.yml U action_provision U
va > my_vagrant_project > Vagrantfile
8 Vagrant.configure("2") do |config|
60 # # Display the VirtualBox GUI when booting the machine
61 # vb.gui = true
62 #
63 # # Customize the amount of memory on the VM:
64 # vb.memory = "1024"
65 # end
66 config.vm.provider "virtualbox" do |vb|
67   vb.memory = "1024"
68   vb.cpus = 2
69 end
70
71 config.vm.provision "ansible" do |ansible|
72   ansible.playbook = "playbook.yml"
73 end
74 #
75 # View the documentation for the provider you are using for more
76 # information on available options.
77
78 # Enable provisioning with a shell script. Additional provisioners such as
79 # Ansible, Chef, Docker, Puppet and Salt are also available. Please see the
80 # documentation for more information about their specific syntax and use.
81 # config.vm.provision "shell", inline: <<-SHELL
82 # end
```

va \ my_vagrant_project	●
. vagrant	●
machines \ default \ vir...	●
action_provision	U
action_set_name	U
box_meta	U
creator_uid	U
id	U
index_uuid	U
private_key	U
synced_folders	U
vagrant_cwd	U
rgloader	●
loader.rb	U
! playbook.yml	U
Vagrantfile	U

```
PS C:\Users\KLN\Documents\GitHub\sem7\DevOps\587DevOps\va> mkdir my_vagrant_project
```

```
Directory: C:\Users\KLN\Documents\GitHub\sem7\DevOps\587DevOps\va
```

Mode	LastWriteTime	Length	Name
d-----	20-08-2024 23:13		my_vagrant_project

```
PS C:\Users\KLN\Documents\GitHub\sem7\DevOps\587DevOps\va> cd my_vagrant_project
```

```
PS C:\Users\KLN\Documents\GitHub\sem7\DevOps\587DevOps\va\my_vagrant_project> vagrant init hashicorp/bionic64
>>
A `Vagrantfile` has been placed in this directory. You are now
ready to `vagrant up` your first virtual environment! Please read
the comments in the Vagrantfile as well as documentation on
`vagrantup.com` for more information on using Vagrant.
```

```
PS C:\Users\KLN\Documents\GitHub\sem7\DevOps\587DevOps\va\my_vagrant_project> vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
==> default: Checking if box 'hashicorp/bionic64' version '1.0.282' is up to date...
==> default: Clearing any previously set network interfaces...
==> default: Preparing network interfaces based on configuration...
default: Adapter 1: nat
==> default: Forwarding ports...
default: 22 (guest) => 2222 (host) (adapter 1)
==> default: Running 'pre-boot' VM customizations...
==> default: Booting VM...
==> default: Waiting for machine to boot. This may take a few minutes...
default: SSH address: 127.0.0.1:2222
default: SSH username: vagrant
default: SSH auth method: private key
default:
default: Vagrant insecure key detected. Vagrant will automatically replace
default: this with a newly generated keypair for better security.
default:
default: Inserting generated public key within guest...
default: Removing insecure key from the guest if it's present...
default: Key inserted! Disconnecting and reconnecting using new SSH key...
==> default: Machine booted and ready!
==> default: Checking for guest additions in VM...
default: The guest additions on this VM do not match the installed version of
default: VirtualBox! In most cases this is fine, but in rare cases it can
default: prevent things such as shared folders from working properly. If you see
default: shared folder errors, please make sure the guest additions within the
default: virtual machine match the version of VirtualBox you have installed on
default: your host and reload your VM.
default:
default: Guest Additions Version: 6.0.10
default: VirtualBox Version: 7.0
==> default: Mounting shared folders...
default: /vagrant => C:/Users/KLN/Documents/GitHub/sem7/DevOps/587DevOps/va/my_vagrant_project
```

```
PS C:\Users\KLN\Documents\GitHub\sem7\DevOps\587DevOps\va\my_vagrant_project> vagrant ssh
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-58-generic x86_64)
```

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

System information as of Tue Aug 20 17:51:22 UTC 2024

```
System load:  1.16      Processes:      103
Usage of /:   2.5% of 61.80GB   Users logged in:  0
Memory usage: 12%      IP address for eth0: 10.0.2.15
Swap usage:   0%
```

```
* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
  just raised the bar for easy, resilient and secure K8s cluster deployment.
```

<https://ubuntu.com/engage/secure-kubernetes-at-the-edge>

```
0 packages can be updated.
0 updates are security updates.
```

```
vagrant@vagrant:~$ ls
vagrant@vagrant:~$ ls -a
.  ..  .bash_logout  .bashrc  .cache  .gnupg  .profile  .ssh  .sudo_as_admin_successful  .vbox_version  .wget-hsts
vagrant@vagrant:~$ mkdir kln
vagrant@vagrant:~$ ls
kln
vagrant@vagrant:~$ cd kln
vagrant@vagrant:~/kln$ vagrant suspend
-bash: vagrant: command not found
vagrant@vagrant:~/kln$ ^C
vagrant@vagrant:~/kln$ ^C
vagrant@vagrant:~/kln$ cd ..
vagrant@vagrant:~$ vagrant
-bash: vagrant: command not found
vagrant@vagrant:~$ exit
logout
Connection to 127.0.0.1 closed.
```