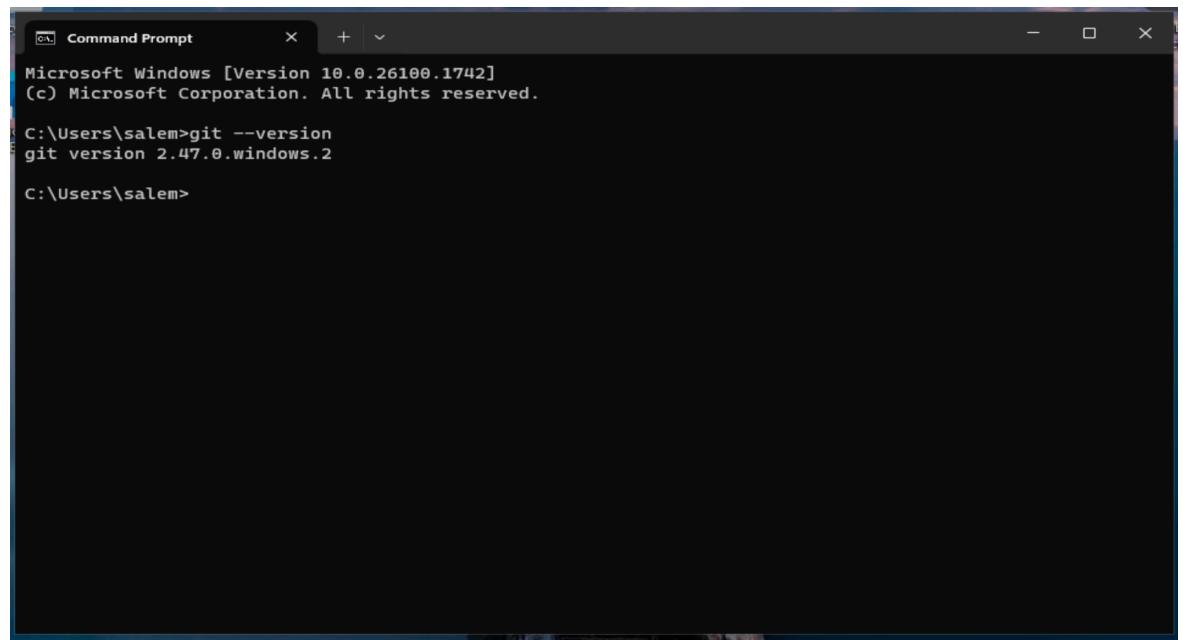


Amjad Alqahtani  
Cloud Computing  
5573

1. Working with git repository
  - a. I install the git and I took a screenshot of `git --version`

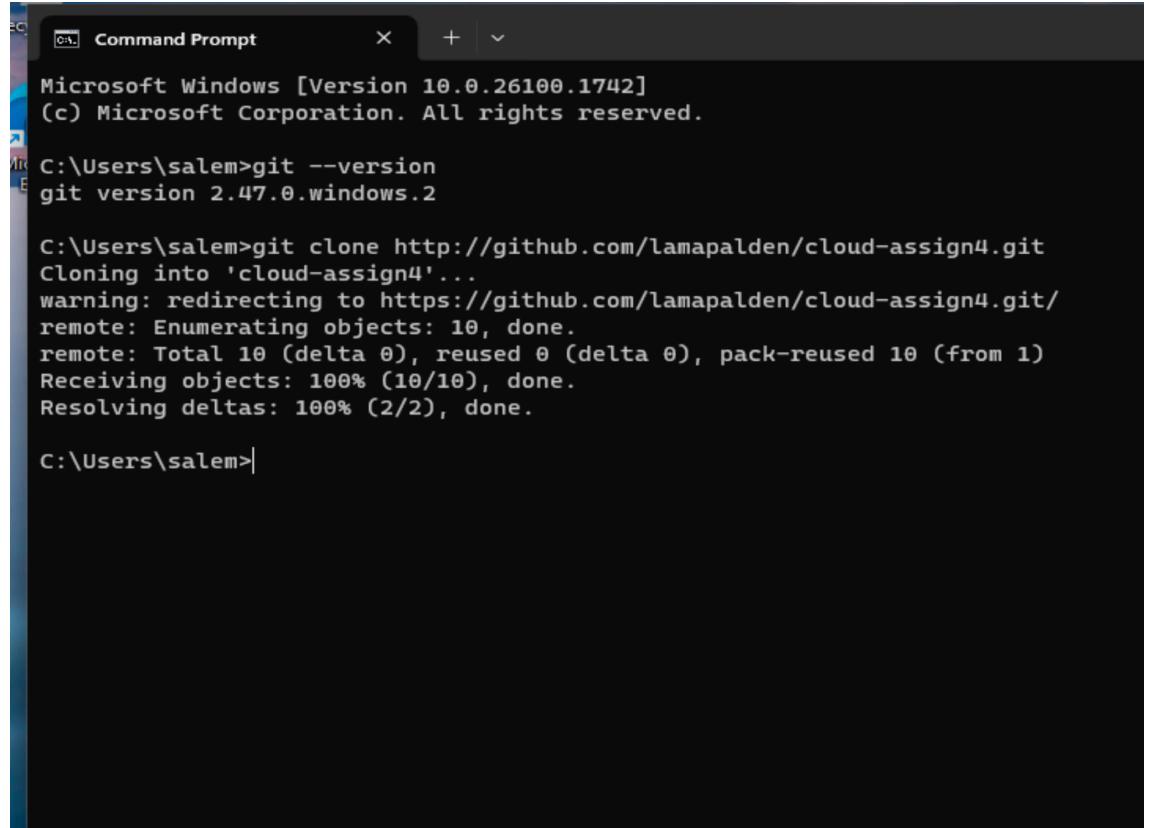


```
Command Prompt
Microsoft Windows [Version 10.0.26100.1742]
(c) Microsoft Corporation. All rights reserved.

C:\Users\salem>git --version
git version 2.47.0.windows.2

C:\Users\salem>
```

- b. To clone the git repository, i use `git clone`  
<https://github.com/lamapalden/cloud-assign4.git>



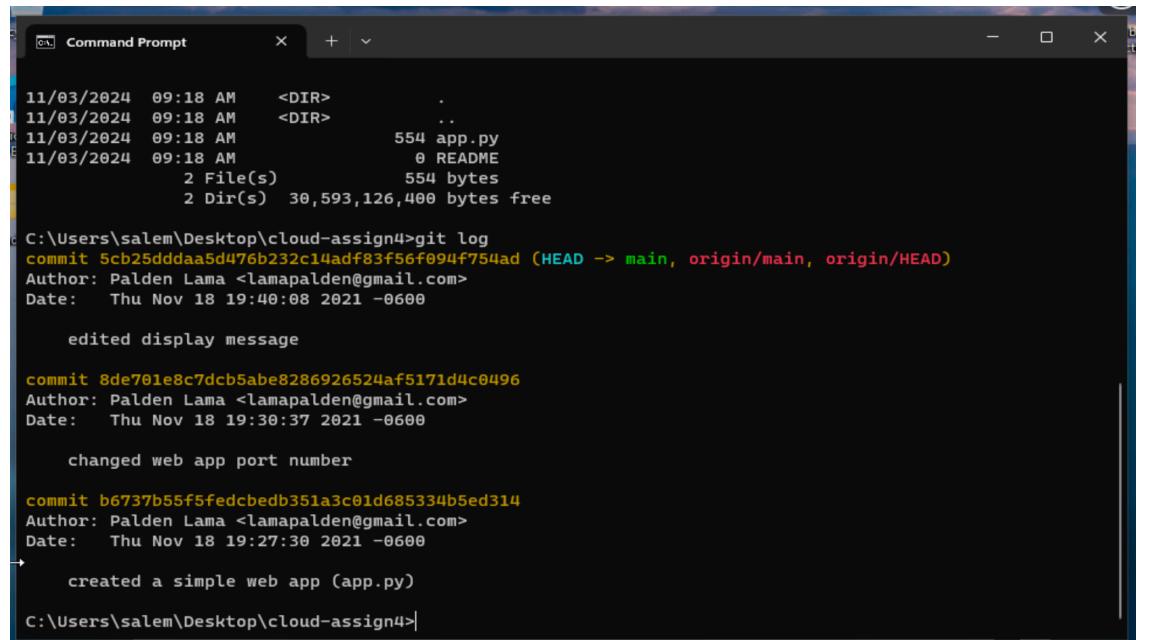
```
PC Command Prompt
Microsoft Windows [Version 10.0.26100.1742]
(c) Microsoft Corporation. All rights reserved.

C:\Users\salem>git --version
git version 2.47.0.windows.2

C:\Users\salem>git clone http://github.com/lamapalden/cloud-assign4.git
Cloning into 'cloud-assign4'...
warning: redirecting to https://github.com/lamapalden/cloud-assign4.git/
remote: Enumerating objects: 10, done.
remote: Total 10 (delta 0), reused 0 (delta 0), pack-reused 10 (from 1)
Receiving objects: 100% (10/10), done.
Resolving deltas: 100% (2/2), done.

C:\Users\salem>
```

- c. To display the commit history, I use `git log` to display full sha hash value, then, for simplicity and make the hash value shorter, I use `git log --oneline`



```
PC Command Prompt
11/03/2024 09:18 AM <DIR> .
11/03/2024 09:18 AM <DIR> ..
11/03/2024 09:18 AM 554 app.py
11/03/2024 09:18 AM 0 README
2 File(s) 554 bytes
2 Dir(s) 30,593,126,400 bytes free

C:\Users\salem\Desktop\cloud-assign4>git log
commit 5cb25ddaa5d476b232c14adf83f56f094f754ad (HEAD -> main, origin/main, origin/HEAD)
Author: Palden Lama <lamapalden@gmail.com>
Date: Thu Nov 18 19:40:08 2021 -0600

    edited display message

commit 8de701e8c7dcba5abe8286926524af5171d4c0496
Author: Palden Lama <lamapalden@gmail.com>
Date: Thu Nov 18 19:30:37 2021 -0600

    changed web app port number

commit b6737b55f5fedcbedb351a3c01d685334b5ed314
Author: Palden Lama <lamapalden@gmail.com>
Date: Thu Nov 18 19:27:30 2021 -0600
→      created a simple web app (app.py)

C:\Users\salem\Desktop\cloud-assign4>
```

```
Command Prompt
2 File(s)           554 bytes
2 Dir(s)  30,593,126,400 bytes free

C:\Users\salem\Desktop\cloud-assign4>git log
commit 5cb25ddaa5d476b232c14adf83f56f094f754ad (HEAD -> main, origin/main, origin/HEAD)
Author: Palden Lama <lampaalden@gmail.com>
Date:   Thu Nov 18 19:40:08 2021 -0600

    edited display message

commit 8de701e8c7dcbb5abe8286926524af5171d4c0496
Author: Palden Lama <lampaalden@gmail.com>
Date:   Thu Nov 18 19:30:37 2021 -0600

    changed web app port number

commit b6737b55f5fedcbedb351a3c01d685334b5ed314
Author: Palden Lama <lampaalden@gmail.com>
Date:   Thu Nov 18 19:27:30 2021 -0600

    created a simple web app (app.py)

C:\Users\salem\Desktop\cloud-assign4>git log --oneline
5cb25dd (HEAD -> main, origin/main, origin/HEAD) edited display message
8de701e changed web app port number
b6737b5 created a simple web app (app.py)

C:\Users\salem\Desktop\cloud-assign4>
```

- d. To switch to the oldest commit, means to go back in history, I use `git checkout 5cb25dd`

```
Command Prompt
created a simple web app (app.py)

C:\Users\salem\Desktop\cloud-assign4>git log --oneline
5cb25dd (HEAD -> main, origin/main, origin/HEAD) edited display message
8de701e changed web app port number
b6737b5 created a simple web app (app.py)

C:\Users\salem\Desktop\cloud-assign4>git checkout 5cb25dd
Note: switching to '5cb25dd'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:

  git switch -c <new-branch-name>

Or undo this operation with:

  git switch -

Turn off this advice by setting config variable advice.detachedHead to false
HEAD is now at 5cb25dd edited display message

C:\Users\salem\Desktop\cloud-assign4>
```

Display the content of appy.py by `more app.py`

```
  Command Prompt + ^

11/03/2024  09:18 AM    <DIR>      .
11/03/2024  09:18 AM    <DIR>      ..
11/03/2024  09:18 AM           554 app.py
11/03/2024  09:18 AM            0 README
          2 File(s)        554 bytes
          2 Dir(s)  30,591,987,712 bytes free

C:\Users\salem\Desktop\cloud-assign4>more app.py
from flask import Flask

app = Flask(__name__)

@app.route("/")
def index():
    return "Congratulations, it's a web app!"

@app.route("/<int:celsius>")
def fahrenheit_from(celsius):
    print ("Converting celsius to fahrenheit", flush=True)
    """Convert Celsius to Fahrenheit degrees."""
    fahrenheit = float(celsius) * 9 / 5 + 32
    fahrenheit = round(fahrenheit, 3) # Round to three decimal places
    return str(fahrenheit) + " degree Fahrenheit"

if __name__ == "__main__":
    app.run(host="0.0.0.0", port=8081, debug=True)

C:\Users\salem\Desktop\cloud-assign4>
```

- e. To go back to the latest commit, **git checkout main** (note, if i am not using windows prompt command, the right command will be git checkout master)

```
  Command Prompt + ^

C:\Users\salem\Desktop\cloud-assign4>git branch
* (HEAD detached at 5cb25dd)
  main

C:\Users\salem\Desktop\cloud-assign4>git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

C:\Users\salem\Desktop\cloud-assign4>git log
commit 5cb25ddaa5d476b232c14adf83f56f094f754ad (HEAD -> main, origin/main, origin/HEAD)
Author: Palden Lama <lamapalden@gmail.com>
Date:   Thu Nov 18 19:40:08 2021 -0600

    edited display message

commit 8de701e8c7dcbb5abe8286926524af5171d4c0496
Author: Palden Lama <lamapalden@gmail.com>
Date:   Thu Nov 18 19:30:37 2021 -0600

    changed web app port number

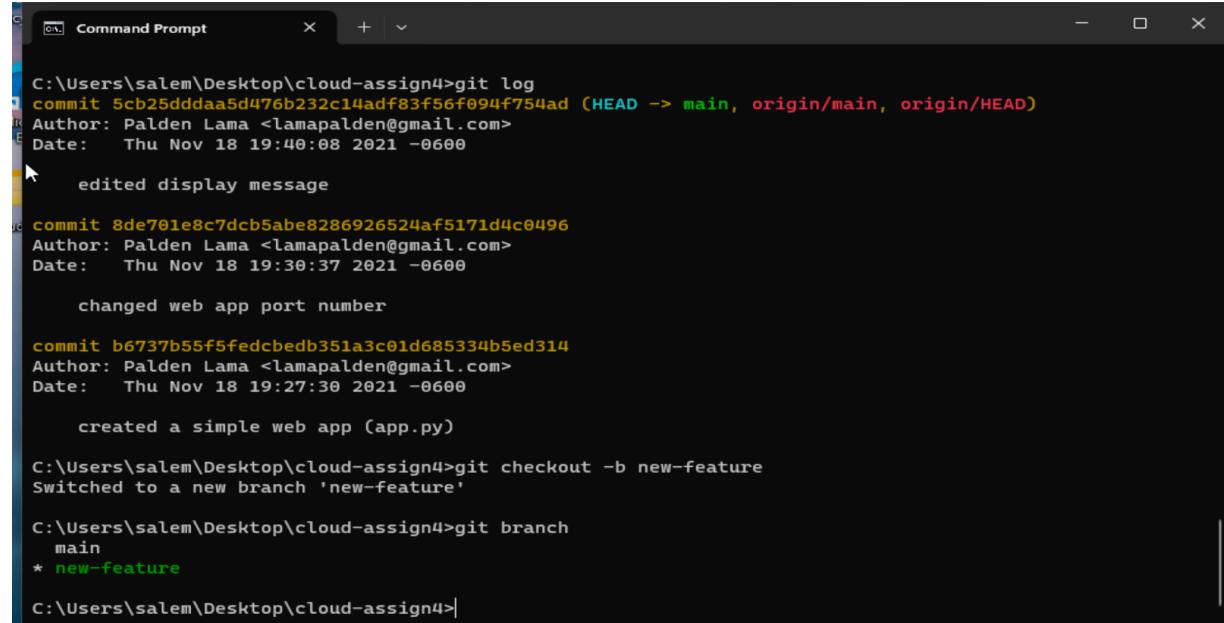
commit b6737b55f5fedcbedb351a3c01d685334b5ed314
Author: Palden Lama <lamapalden@gmail.com>
Date:   Thu Nov 18 19:27:30 2021 -0600

    created a simple web app (app.py)

C:\Users\salem\Desktop\cloud-assign4>
```

## 2. Branch and Merge

- Create a branch and name it new-feature and switch to it using: `git branch -b new-feature`. To make sure you are in a right branch do `git branch`



```
C:\Users\salem\Desktop\cloud-assign4>git log
commit 5cb25ddaa5d476b232c14adf83f56f094f754ad (HEAD -> main, origin/main, origin/HEAD)
Author: Palden Lama <lamapalden@gmail.com>
Date:   Thu Nov 18 19:40:08 2021 -0600

    edited display message

commit 8de701e8c7dcbaeb8286926524af5171d4c0496
Author: Palden Lama <lamapalden@gmail.com>
Date:   Thu Nov 18 19:30:37 2021 -0600

    changed web app port number

commit b6737b55f5fedcbedb351a3c01d685334b5ed314
Author: Palden Lama <lamapalden@gmail.com>
Date:   Thu Nov 18 19:27:30 2021 -0600

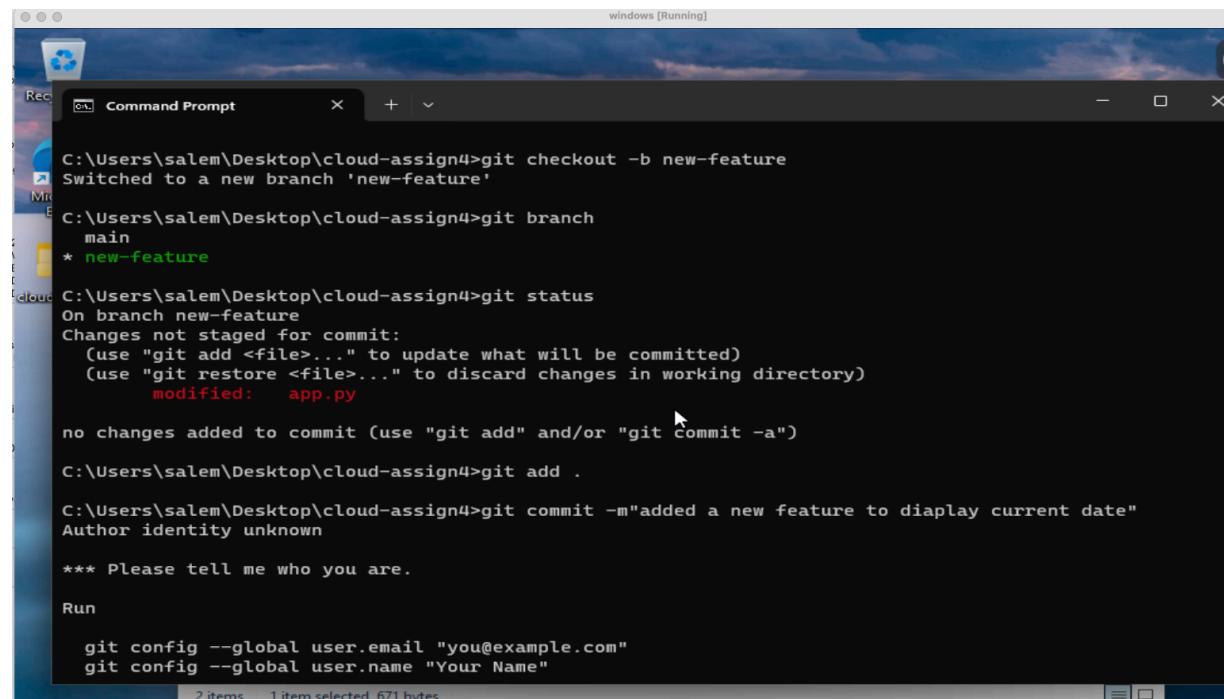
    created a simple web app (app.py)

C:\Users\salem\Desktop\cloud-assign4>git checkout -b new-feature
Switched to a new branch 'new-feature'

C:\Users\salem\Desktop\cloud-assign4>git branch
  main
* new-feature

C:\Users\salem\Desktop\cloud-assign4>
```

- I added the code to the file.
- To commit the changes, `git status`, `git add .`, `git commit -m "added a new feature to display current date"`



```
C:\Users\salem\Desktop\cloud-assign4>git checkout -b new-feature
Switched to a new branch 'new-feature'

C:\Users\salem\Desktop\cloud-assign4>git branch
  main
* new-feature

C:\Users\salem\Desktop\cloud-assign4>git status
On branch new-feature
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:   app.py

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

C:\Users\salem\Desktop\cloud-assign4>git add .

C:\Users\salem\Desktop\cloud-assign4>git commit -m"added a new feature to display current date"
Author identity unknown

*** Please tell me who you are.

Run

    git config --global user.email "you@example.com"
    git config --global user.name "Your Name"

2 items   1 item selected 671 bytes
```

```
no changes added to commit (use "git add" and/or "git commit -a")
C:\Users\salem\Desktop\cloud-assign4>git add .
C:\Users\salem\Desktop\cloud-assign4>git commit -m"added a new feature to diaplay current date"
Author identity unknown
*** Please tell me who you are.
Run

git config --global user.email "you@example.com"
git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'salem@salem.(none)')

C:\Users\salem\Desktop\cloud-assign4>git config --global user.email "amjadsalem90@gmail.com"
C:\Users\salem\Desktop\cloud-assign4>git config --global user.email "amjadsalem90"
C:\Users\salem\Desktop\cloud-assign4>git commit -m"added a new feature to diaplay current date"
[new-feature 690674d] added a new feature to diaplay current date
 1 file changed, 5 insertions(+)

C:\Users\salem\Desktop\cloud-assign4>
```

```
git config --global user.email "you@example.com"
git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'salem@salem.(none)')

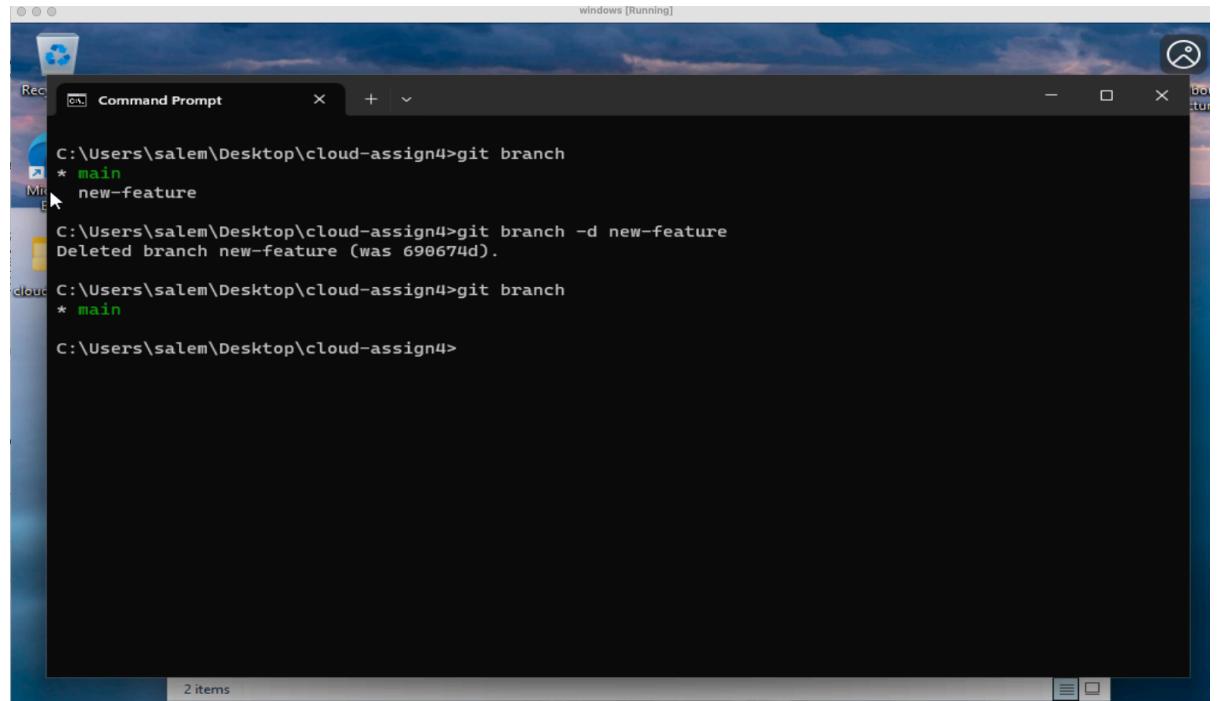
C:\Users\salem\Desktop\cloud-assign4>git config --global user.email "amjadsalem90@gmail.com"
C:\Users\salem\Desktop\cloud-assign4>git config --global user.email "amjadsalem90"
C:\Users\salem\Desktop\cloud-assign4>git commit -m"added a new feature to diaplay current date"
[new-feature 690674d] added a new feature to diaplay current date
 1 file changed, 5 insertions(+)

C:\Users\salem\Desktop\cloud-assign4>git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

C:\Users\salem\Desktop\cloud-assign4>git merge new-feature
Updating 5cb25dd..690674d
Fast-forward
 app.py | 5 +++++
 1 file changed, 5 insertions(+)
```

d. To merge the changes: `git checkout main`, then `git merge new-feature`

- e. To delete the branch, `git branch -d new-feature`



A screenshot of a Windows Command Prompt window titled "Command Prompt". The window shows the following command history:

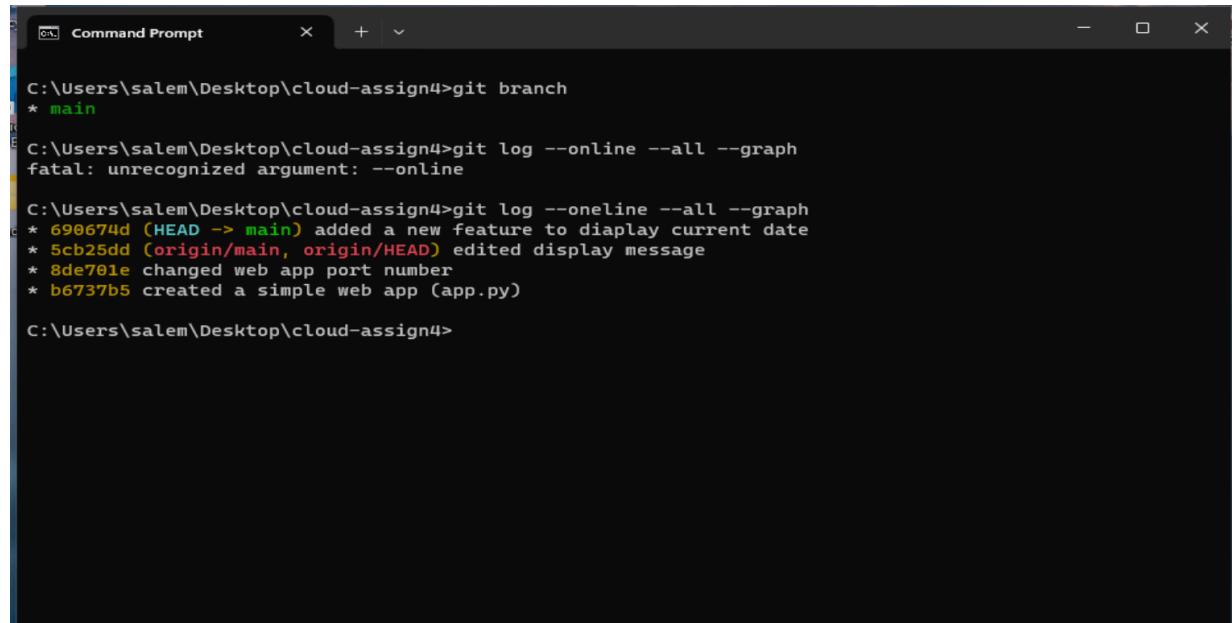
```
C:\Users\salem\Desktop\cloud-assign4>git branch
* main
  new-feature

C:\Users\salem\Desktop\cloud-assign4>git branch -d new-feature
Deleted branch new-feature (was 690674d).

C:\Users\salem\Desktop\cloud-assign4>git branch
* main

C:\Users\salem\Desktop\cloud-assign4>
```

- f. To display the history, `git log --oneline --all --graph`



A screenshot of a Windows Command Prompt window titled "Command Prompt". The window shows the following command history:

```
C:\Users\salem\Desktop\cloud-assign4>git branch
* main

C:\Users\salem\Desktop\cloud-assign4>git log --oneline --all --graph
fatal: unrecognized argument: --online

C:\Users\salem\Desktop\cloud-assign4>git log --oneline --all --graph
* 690674d (HEAD -> main) added a new feature to diaplay current date
* 5cb25dd (origin/main, origin/HEAD) edited display message
* 8de701e changed web app port number
* b6737b5 created a simple web app (app.py)

C:\Users\salem\Desktop\cloud-assign4>
```

Note: I used the Windows system and command prompt terminal. If I use Linux (Ubuntu, etc) some commands will be different.