

Experiment 02 - Version Control and Testing Lab

December 8, 2022

Aim

Update the given code and commit your changes.

Theory

Commands used in this experiment are given below respectively :

- **git add** - Command to include the changes of a file(s) into our next commit.

```
git add <file>
```

- **git commit** - Command is like setting a checkpoint in the development process which you can go back to later if needed.

```
git commit -m "commit message"
```

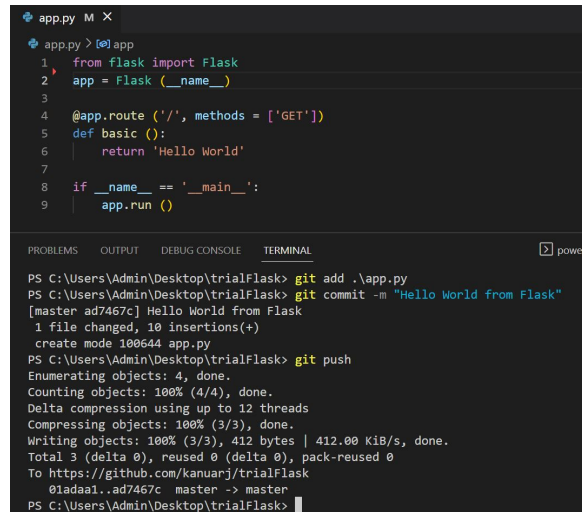
- **git push** - After committing your changes, the next thing you want to do is send your changes to the remote server. Git push uploads your commits to the remote repository.

```
git push
```

Results

- The process starts with basic hello world program made using Flask framework and can be seen in figure 1 respectively.
- The changes in the file are done in the code itself. The hello world is changed to different statement and can be seen in figure 2 respectively.
- The changed file needs to be added in the repository using the git add with filename command and can be seen in the figure 3 respectively.
- The changed file is then committed and can be seen in the figure 4 respectively.

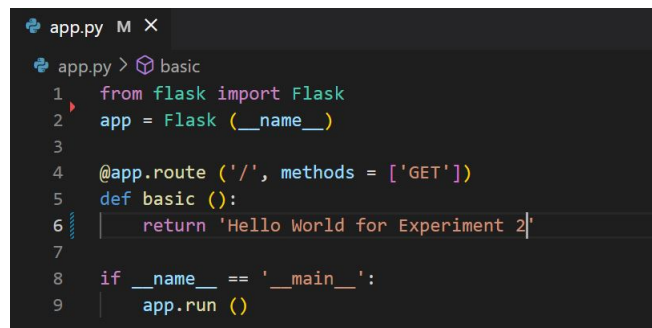
- The changed file finally needs to be pushed onto the repository and can be seen in the figure 5 respectively.



```
app.py M X
app.py > | app
1  from flask import Flask
2  app = Flask (__name__)
3
4  @app.route ('/', methods = ['GET'])
5  def basic ():
6      return 'Hello World'
7
8  if __name__ == '__main__':
9      app.run ()

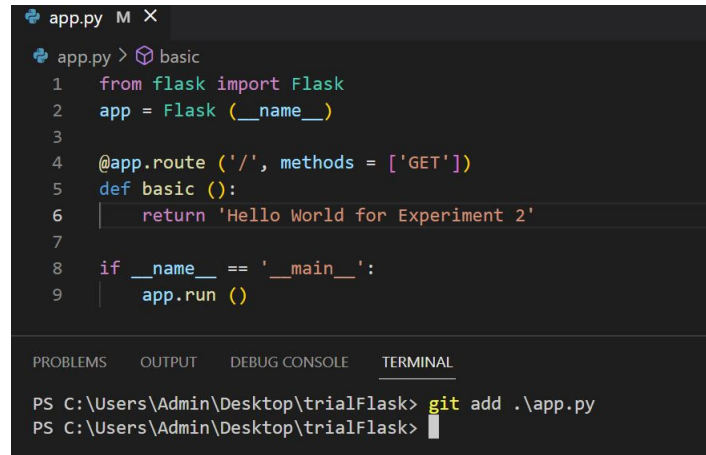
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS C:\Users\Admin\Desktop\trialFlask> git add .\app.py
PS C:\Users\Admin\Desktop\trialFlask> git commit -m "Hello World from Flask"
[master ad7467c] Hello World from Flask
1 file changed, 10 insertions(+)
create mode 100644 app.py
PS C:\Users\Admin\Desktop\trialFlask> git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 412 bytes | 412.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/kanuarj/trialFlask
01adaa1..ad7467c master -> master
PS C:\Users\Admin\Desktop\trialFlask>
```

Figure 1: Basic Hello World program uploaded on GitHub using git



```
app.py M X
app.py > | basic
1  from flask import Flask
2  app = Flask (__name__)
3
4  @app.route ('/', methods = ['GET'])
5  def basic ():
6      return 'Hello World for Experiment 2'
7
8  if __name__ == '__main__':
9      app.run ()
```

Figure 2: Changes made in the Hello World File

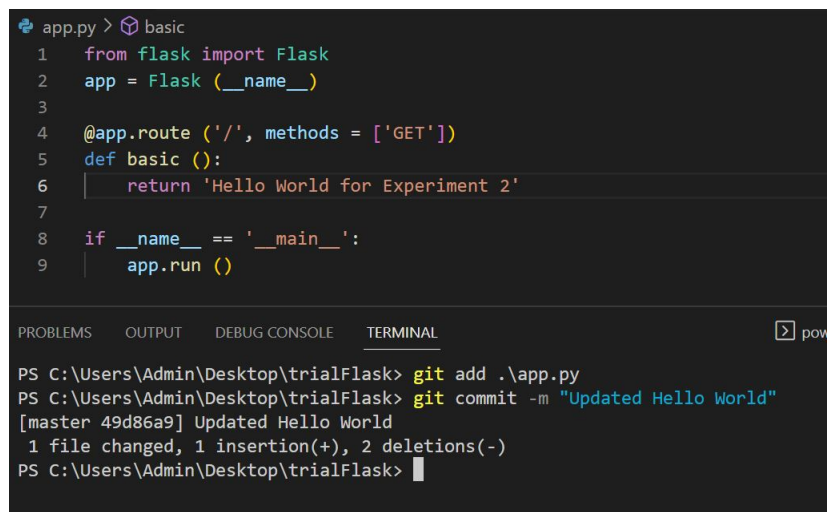


```
app.py M X
app.py > basic
1  from flask import Flask
2  app = Flask (__name__)
3
4  @app.route ('/', methods = ['GET'])
5  def basic ():
6      return 'Hello World for Experiment 2'
7
8  if __name__ == '__main__':
9      app.run ()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS C:\Users\Admin\Desktop\trialFlask> git add .\app.py
PS C:\Users\Admin\Desktop\trialFlask> 
```

Figure 3: Adding the updated file using git add



```
app.py > basic
1  from flask import Flask
2  app = Flask (__name__)
3
4  @app.route ('/', methods = ['GET'])
5  def basic ():
6      return 'Hello World for Experiment 2'
7
8  if __name__ == '__main__':
9      app.run ()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS C:\Users\Admin\Desktop\trialFlask> git add .\app.py
PS C:\Users\Admin\Desktop\trialFlask> git commit -m "Updated Hello World"
[master 49d86a9] Updated Hello World
1 file changed, 1 insertion(+), 2 deletions(-)
PS C:\Users\Admin\Desktop\trialFlask> 
```

Figure 4: Committing the changes made in the file

```
3
4 @app.route ('/', methods = ['GET'])
5 def basic ():
6     return 'Hello World for Experiment 2'
7
8 if __name__ == '__main__':
9     app.run ()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS C:\Users\Admin\Desktop\trialFlask> git add .\app.py
PS C:\Users\Admin\Desktop\trialFlask> git commit -m "Updated Hello World"
[master 49d86a9] Updated Hello World
1 file changed, 1 insertion(+), 2 deletions(-)
PS C:\Users\Admin\Desktop\trialFlask> git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 329 bytes | 329.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/kanuarj/trialFlask
ad7467c..49d86a9 master -> master
PS C:\Users\Admin\Desktop\trialFlask>

Figure 5: Pushing the file changes

Conclusion

In this experiment, a concise interpretation of the add, commit and push commands used for updating the file and maintaining the version of the file is performed successfully.