

Cloud Administration & Security Project -- Dice Game

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Game explains:

1. My application has been deployed in ubuntu AWS EC2. The file structure is as below: In folder NewProject, which including :

---One python file : app.py;

---Two folders : static & templates

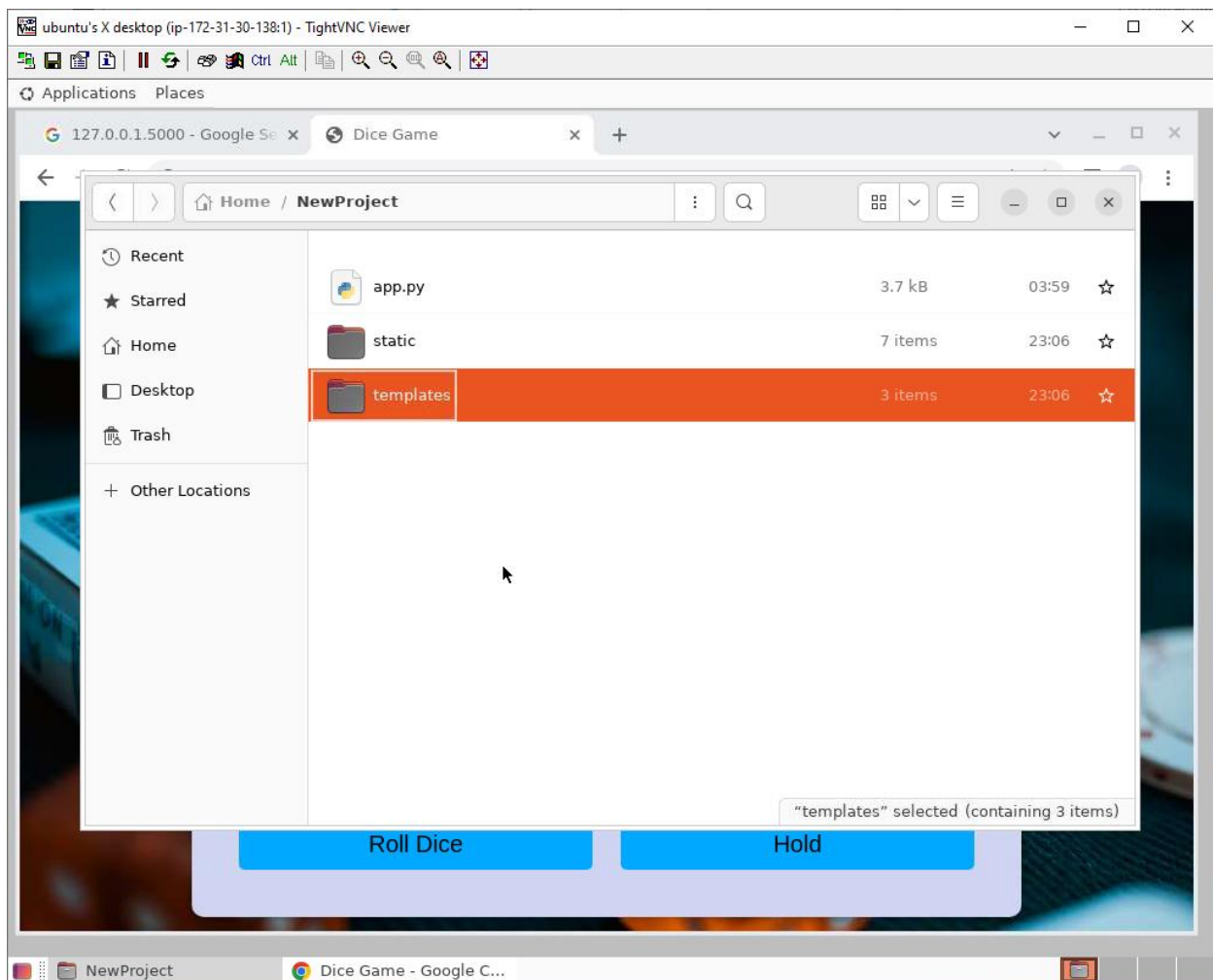
- Folder static: use to store pictures

- Templates : use to store all my html file :

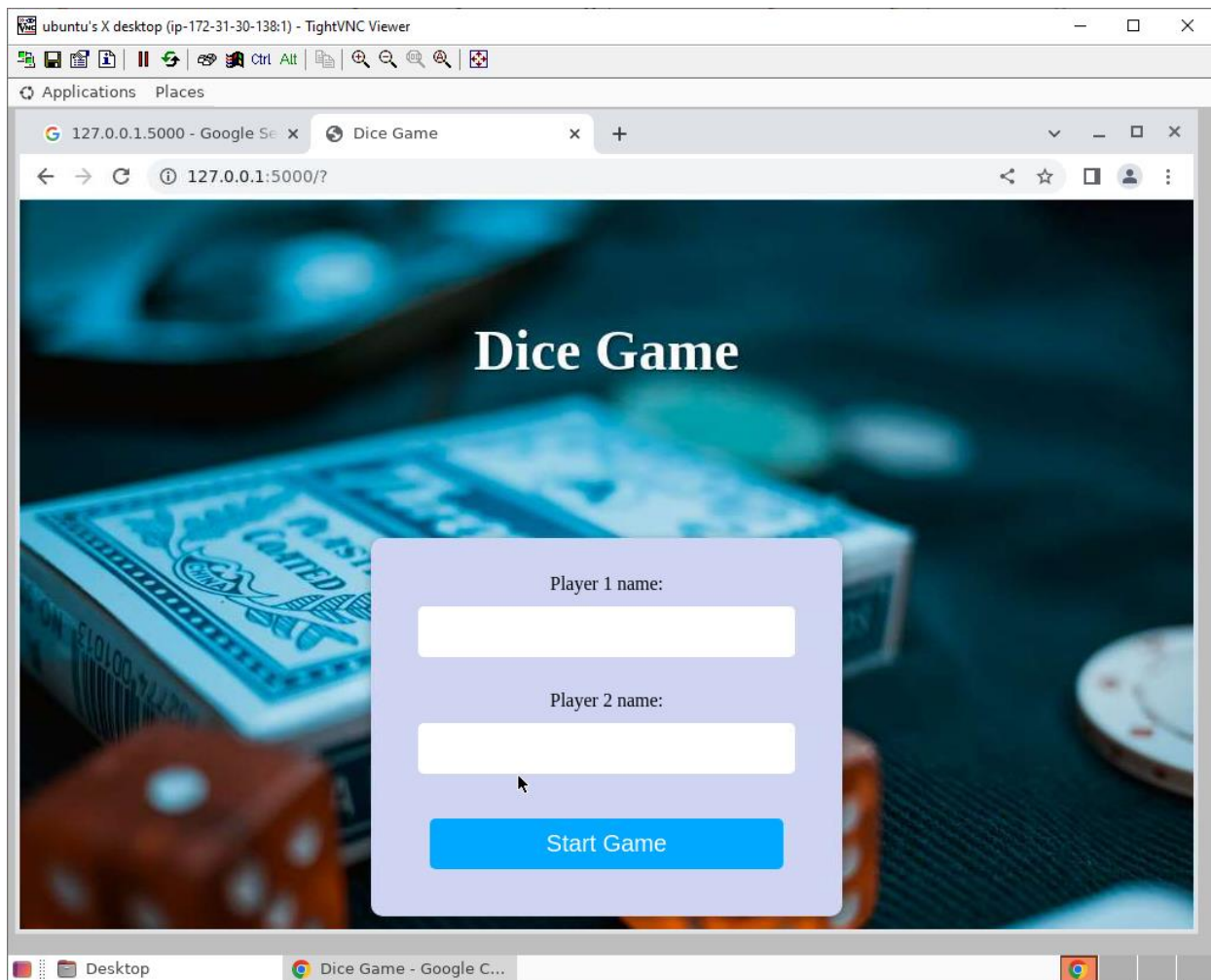
- index.html

- game.html

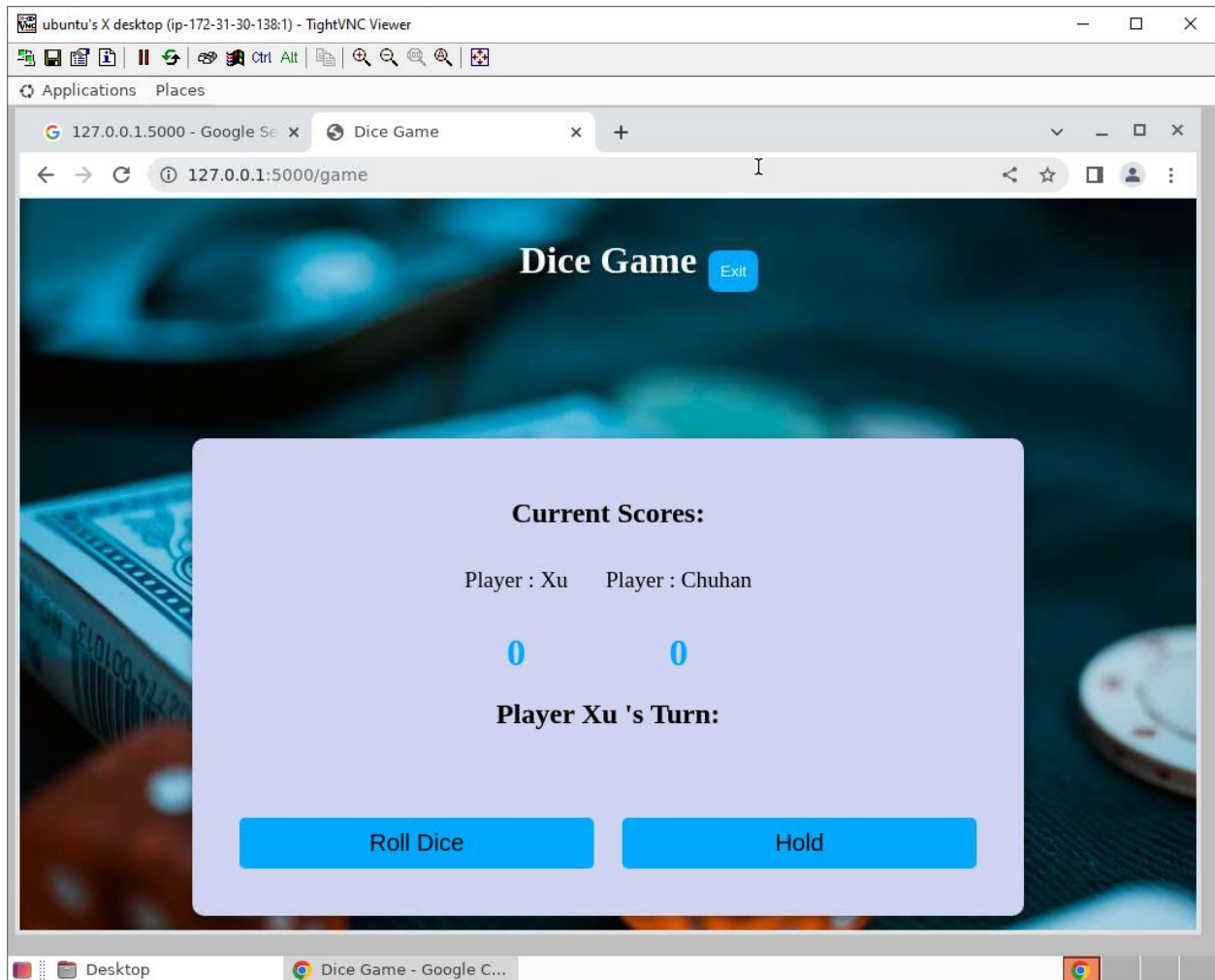
- winner.html



2. This is login interface, after input two players name and press start game button, players will enter the game main page.

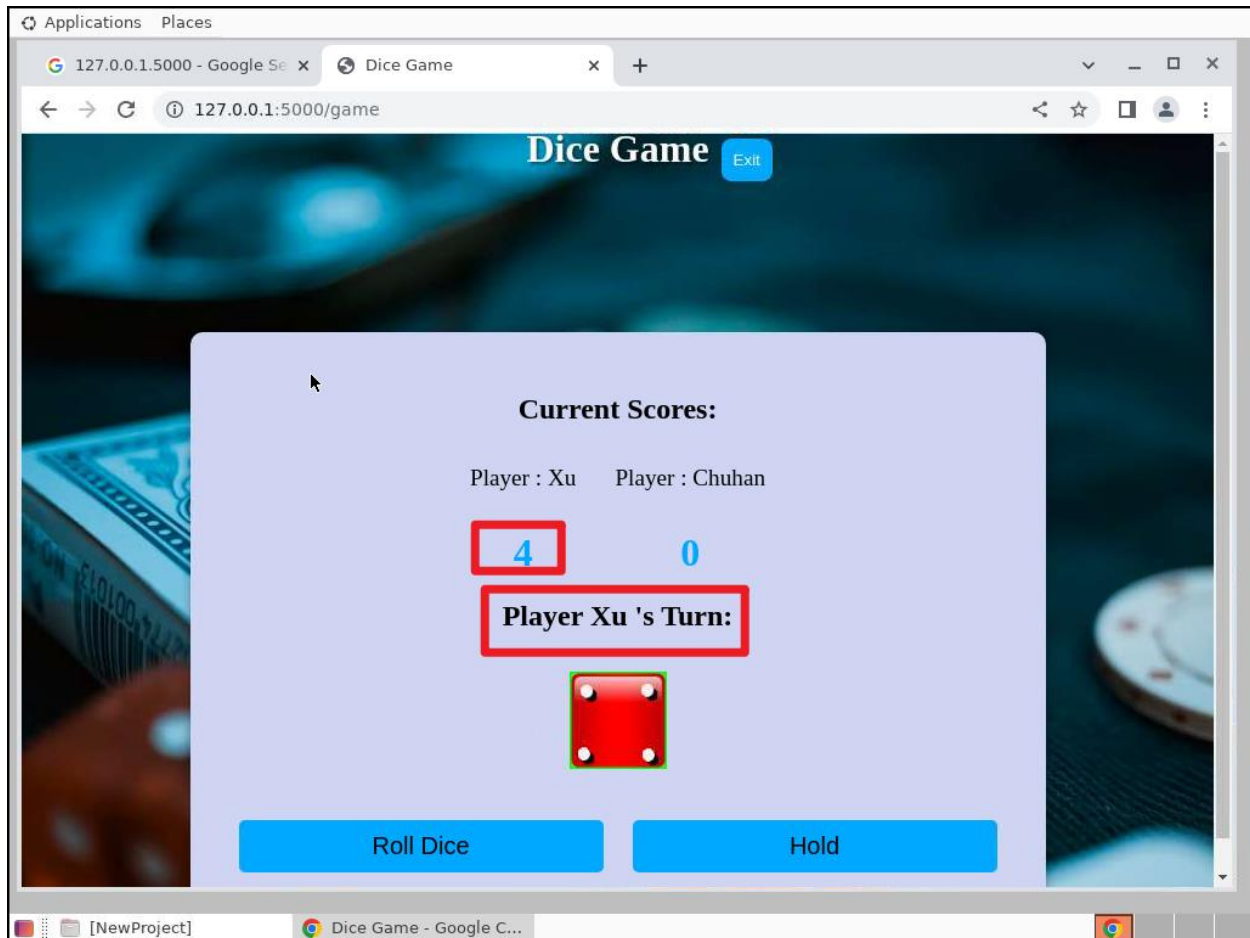


3. The default main page of game shows two players name and their original scores. Under players names, we can also see which player is on turn. There are two buttons at the bottom : one is roll, the other is hold. There is also one button next to the Dice Game heading, which can bring players back to game login page.

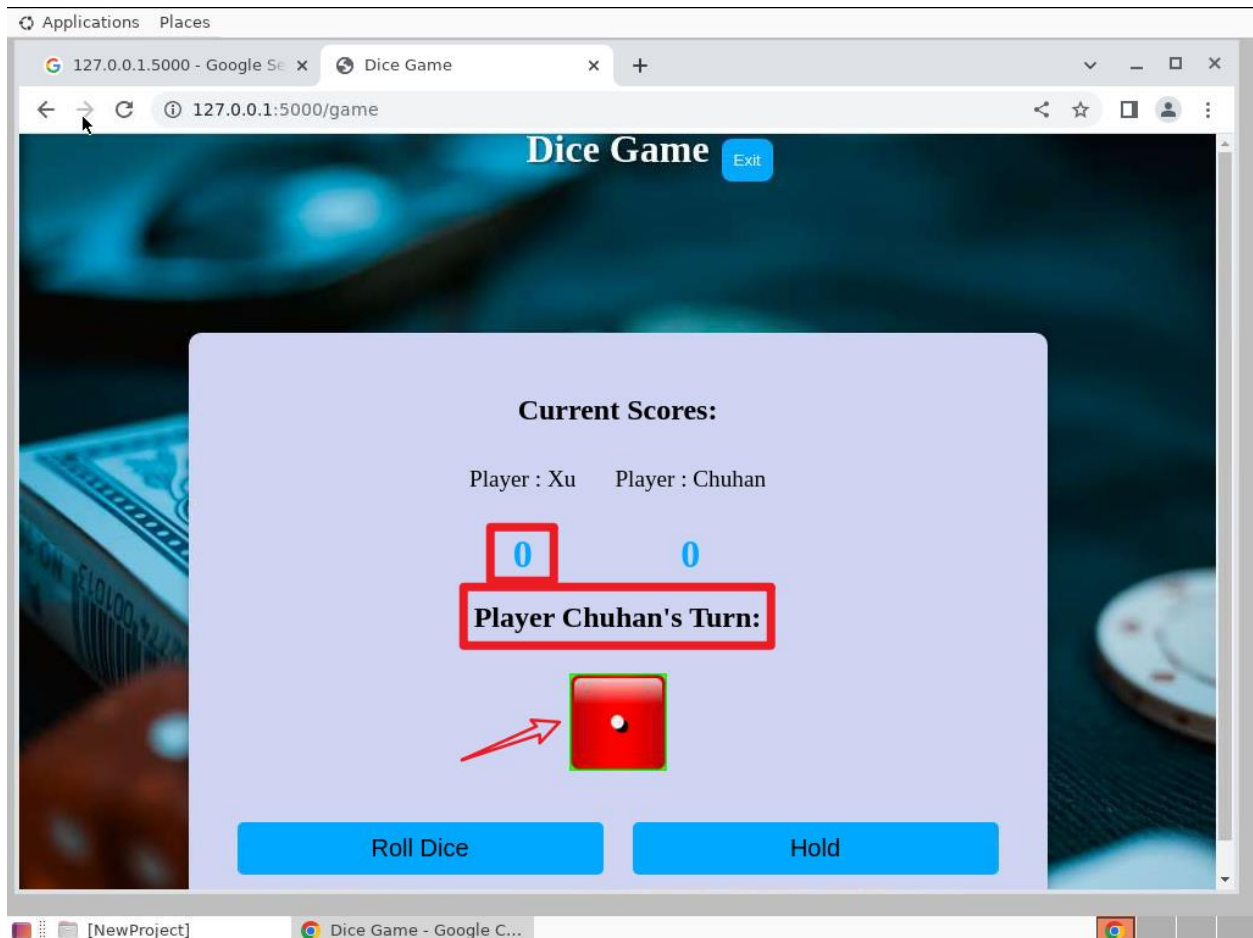


4. On turn player press “Roll Dice”, game start. Of course if he likes, he can also press hold button to give his turn to another player.

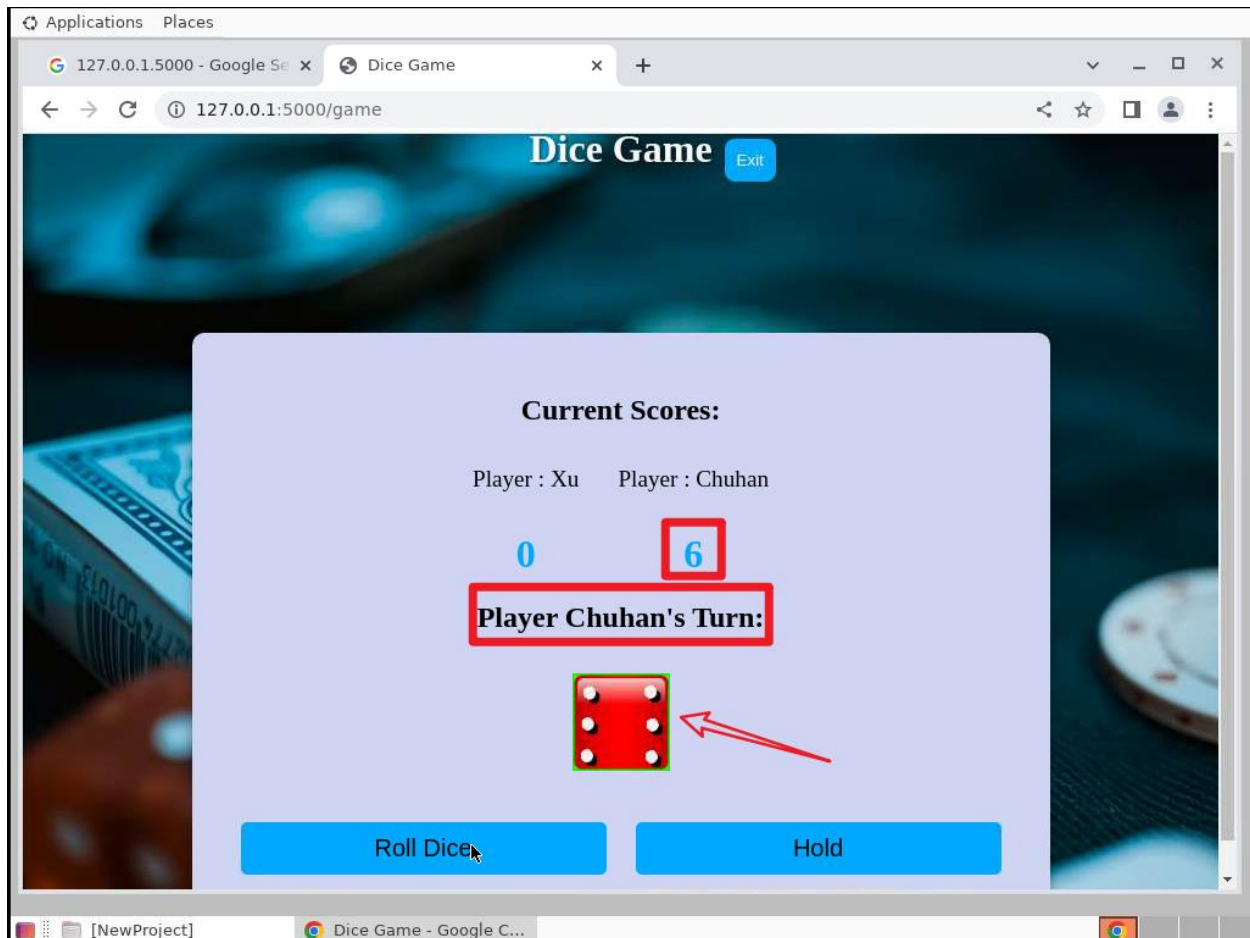
When he press Roll Dice button, a dice picture appeared. The number of point on the dice is same as the ramdon number produced by app.py file. At the same time, current player get a score equal to the points on the dice pic.



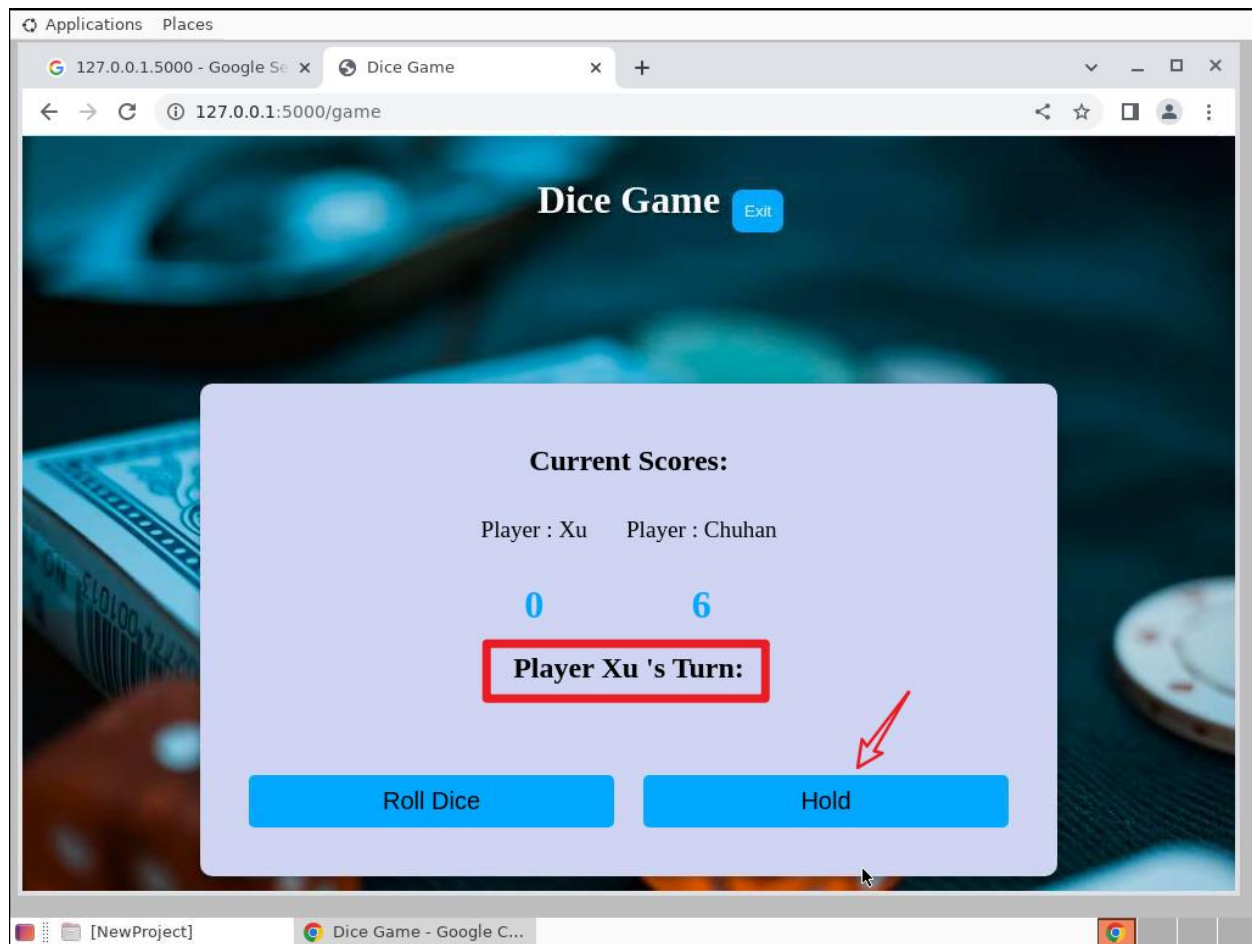
5. If current player press roll dice button again new number will be accumulated to existing number. But if he the dice number is 1. Players score will be reset to 0, and change to another turn to play.



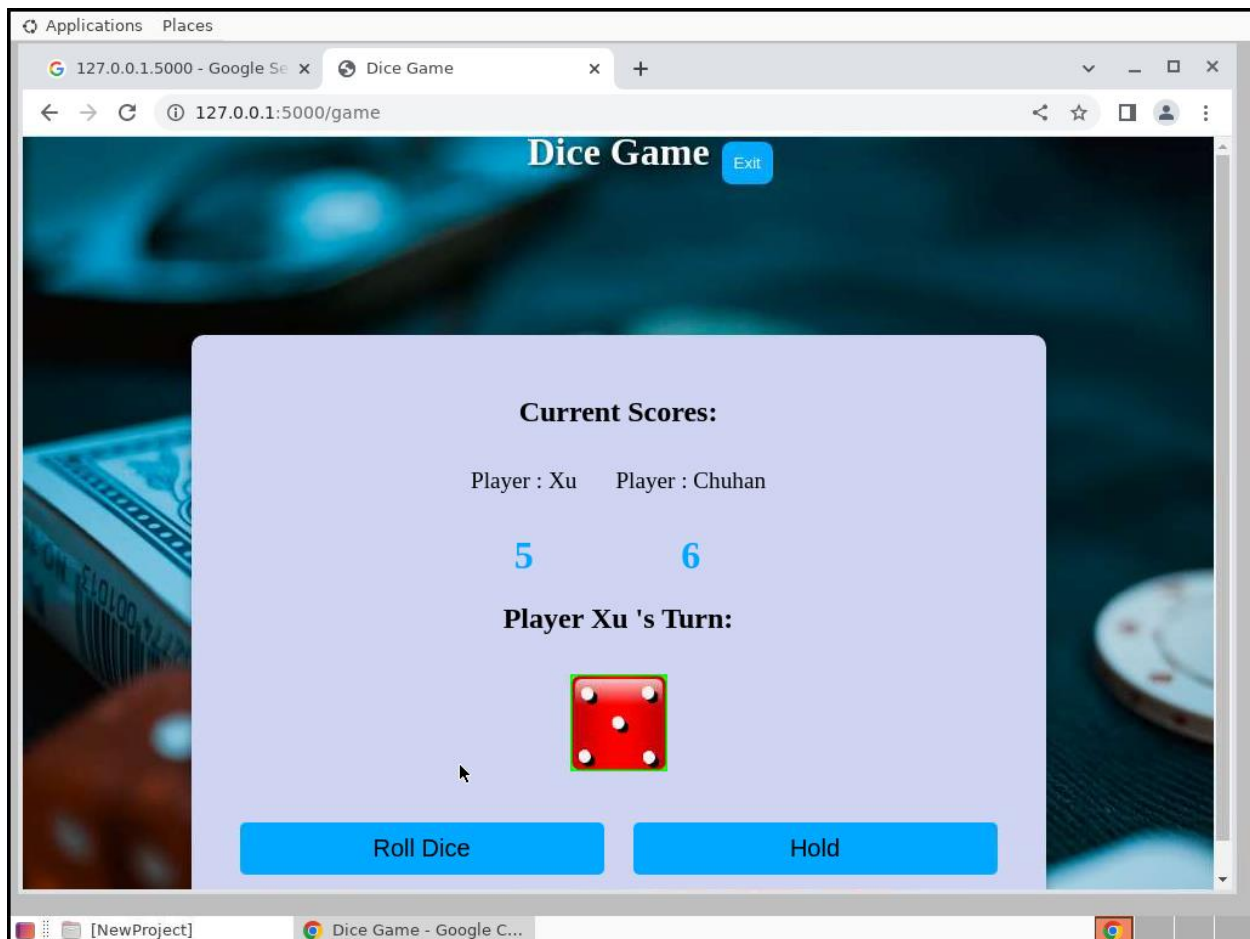
6. Second player roll dice, and number of point will be added to his score.



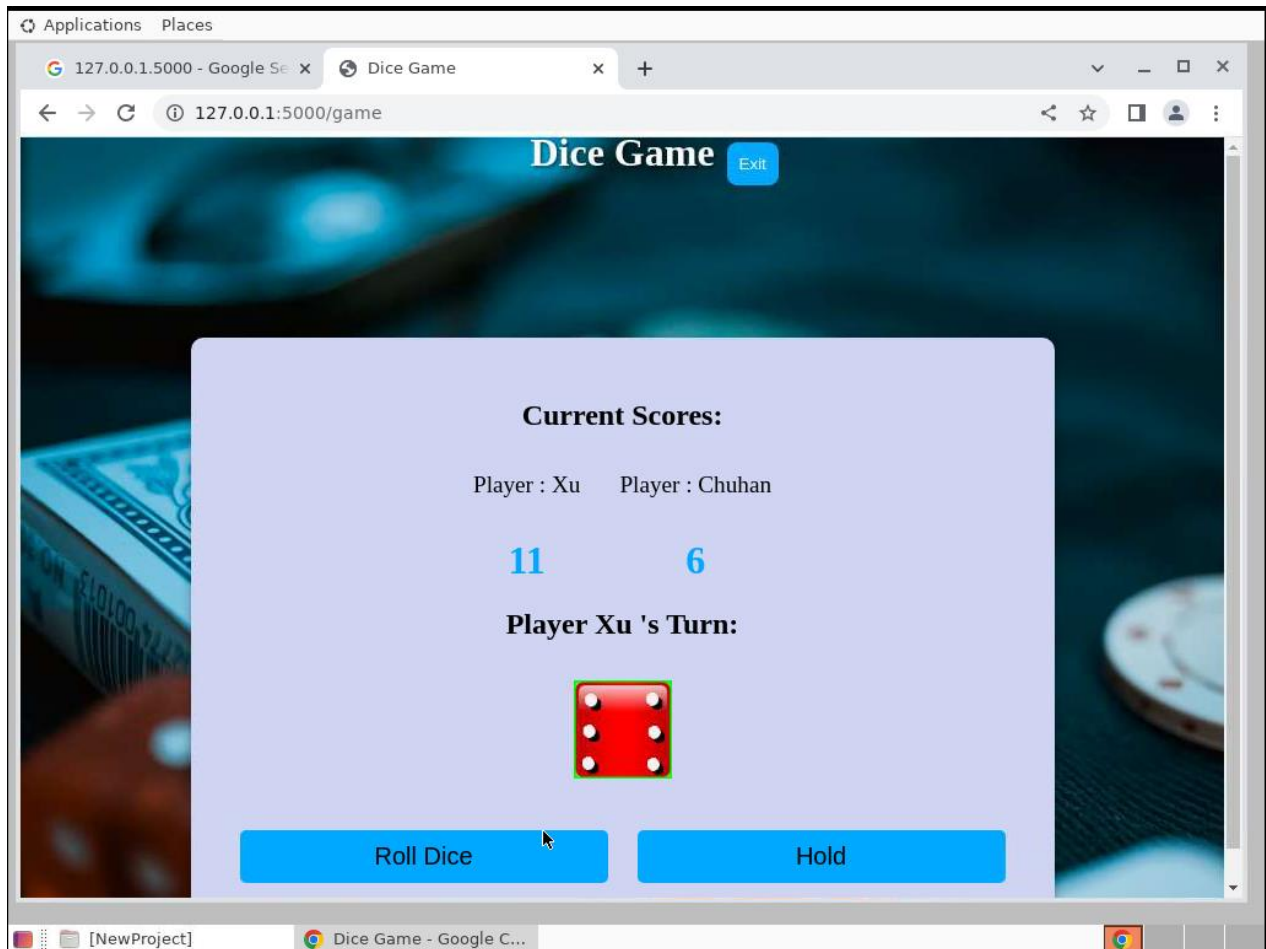
7. If second player press hold, the first player will be on turn. Score of second player will be kept same until he on turn again.



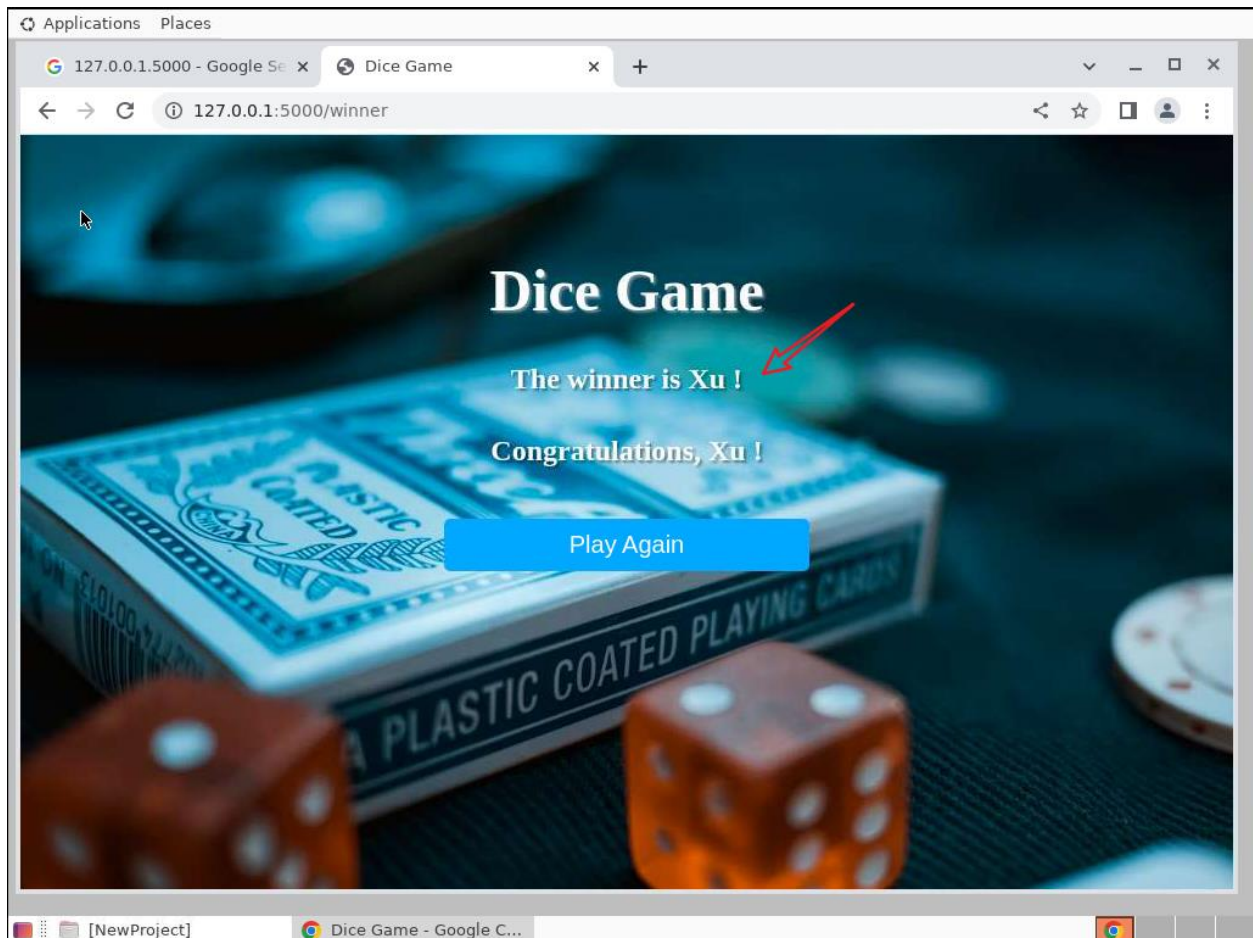
8. The first player on turn again and the score will start from 0, because his previous step got 1 point.



9. First player roll dice again. The new score will be accumulated.

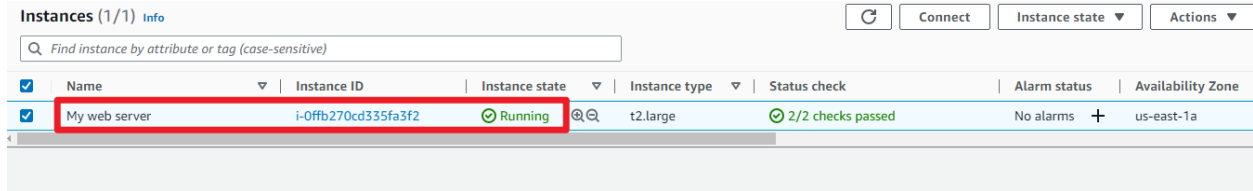


10. until one of the players score equal or above 20. The first person who has the 20 or more points, will be the winner. Players can choose play again in the winner page.



Depoly applicatin on ubuntu EC2

1. start EC2 instance

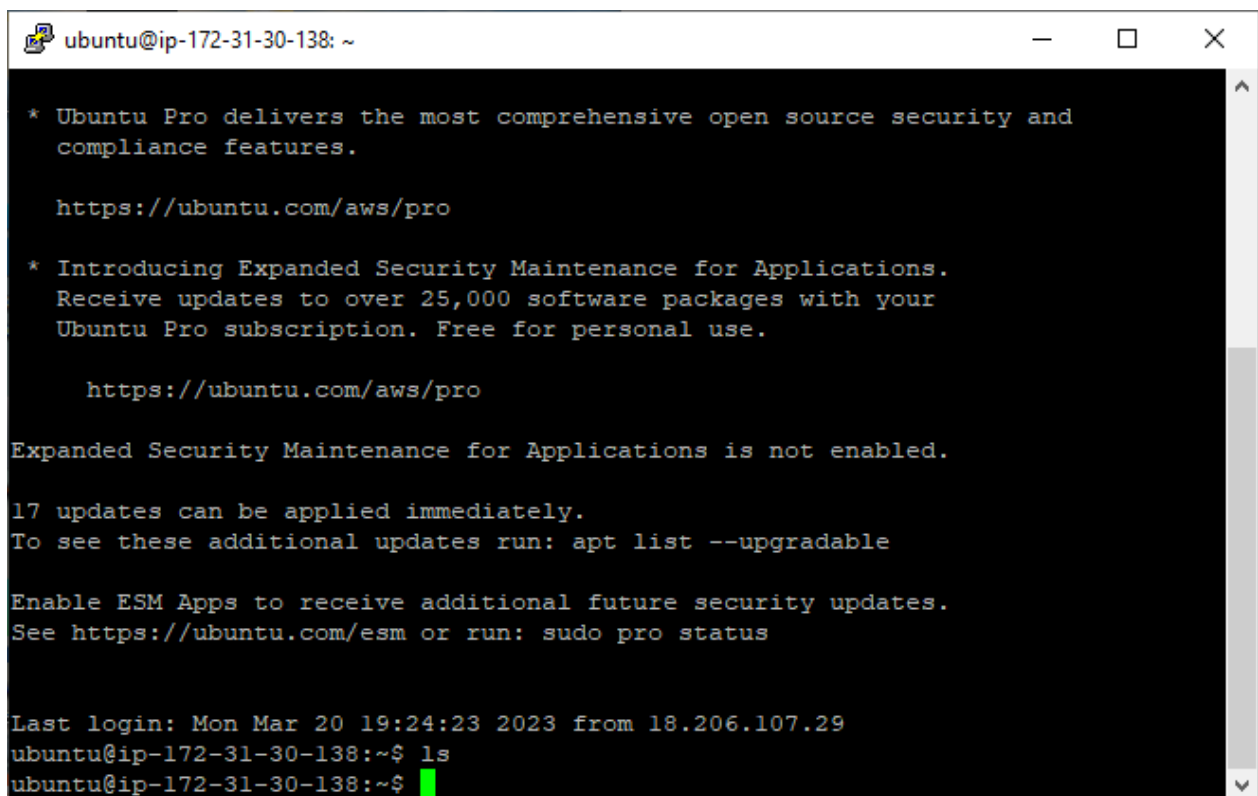


Instances (1/1) Info

Find instance by attribute or tag (case-sensitive)

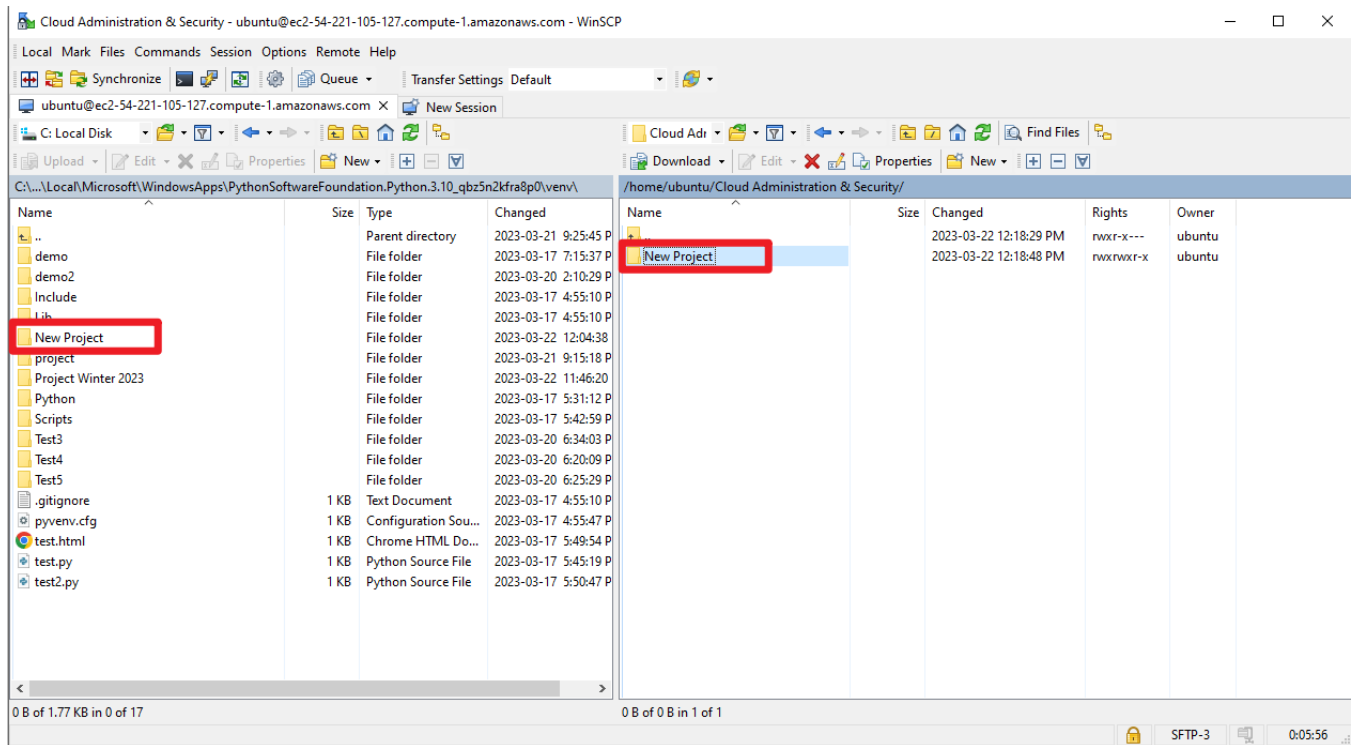
<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input checked="" type="checkbox"/>	My web server	i-Offb270cd335fa3f2	Running	t2.large	2/2 checks passed	No alarms +	us-east-1a

2. connect and start virtural enviroment



```
ubuntu@ip-172-31-30-138: ~  
  
* Ubuntu Pro delivers the most comprehensive open source security and  
compliance features.  
  
https://ubuntu.com/aws/pro  
  
* Introducing Expanded Security Maintenance for Applications.  
Receive updates to over 25,000 software packages with your  
Ubuntu Pro subscription. Free for personal use.  
  
https://ubuntu.com/aws/pro  
  
Expanded Security Maintenance for Applications is not enabled.  
  
17 updates can be applied immediately.  
To see these additional updates run: apt list --upgradable  
  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
Last login: Mon Mar 20 19:24:23 2023 from 18.206.107.29  
ubuntu@ip-172-31-30-138:~$ ls  
ubuntu@ip-172-31-30-138:~$
```

3. install WINSCP and transfer application files to remote environment



4. install flask, chrome browser and Deploy application

```
ubuntu@ip-172-31-30-138: ~/CA_Project/New_Project
ubuntu@ip-172-31-30-138:~$ python3 /New_Project/app.py
python3: can't open file '/New_Project/app.py': [Errno 2] No such file or directory
ubuntu@ip-172-31-30-138:~$ ls
CA_Project
ubuntu@ip-172-31-30-138:~$ python3 /CA_New_Project/app.py
python3: can't open file '/CA_New_Project/app.py': [Errno 2] No such file or directory
ubuntu@ip-172-31-30-138:~$ python3 /CA_New_Project/app.py
python3: can't open file '/CA_New_Project/app.py': [Errno 2] No such file or directory
ubuntu@ip-172-31-30-138:~$ ^C
ubuntu@ip-172-31-30-138:~$ source path/to/venv/bin/activate
-bash: path/to/venv/bin/activate: No such file or directory
ubuntu@ip-172-31-30-138:~$ . path/to/venv/bin/activate
-bash: path/to/venv/bin/activate: No such file or directory
ubuntu@ip-172-31-30-138:~$ ls
CA_Project
ubuntu@ip-172-31-30-138:~$ cd CA_Project
ubuntu@ip-172-31-30-138:~/CA_Project$ ls
New_Project
ubuntu@ip-172-31-30-138:~/CA_Project$ cd New_Project
ubuntu@ip-172-31-30-138:~/CA_Project/New_Project$ python3 app.py
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 989-442-791
^Cubuntu@ip-172-31-30-138:~/CA_Project/New_Project$ http://127.0.0.1:5000^C
ubuntu@ip-172-31-30-138:~/CA_Project/New_Project$
```

5. Open browser in tightVNC viewer

