Running Python Dash application on Linux server

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Linux Server to publish Dash applications

- Hostname: cse5520.engr.uconn.edu

- Server OS: RedHat

- Your computer must be connected to UCONN VPN to connect to this server. Go to https://vpn.uconn.edu

- Any questions about issues with connecting to VPN or connecting to Linux server can be redirected to UITS help desk. https://its.uconn.edu/

- Every student is assigned a specific port number and they are required to use the assigned port only.

    app.run_server(debug=True, host='0.0.0.0',   port=80XX,

        threaded=True)

Use FileZilla to copy your files to the server

Download FileZilla from https://filezilla-project.org/download.php

Download FileZilla Client for Windows (64bit x86)

The latest stable version of FileZilla Client is 3.56.0

Please select the file appropriate for your platform below.

◇ **Windows (64bit x86)**

Download FileZilla Client

This installer may include bundled offers. Check below for more opti...

The 64bit versions of Windows 8.1 and 10 are supported.

◇ **More download options**

Other platforms:

Not what you are looking for?

➡ Show additional download options

Other platforms

Please select your edition of FileZilla Client

	FileZilla	FileZilla with manual	FileZilla Pro	FileZilla Pro + CLI
Standard FTP	Yes	Yes	Yes	Yes
FTP over TLS	Yes	Yes	Yes	Yes
SFTP	Yes	Yes	Yes	Yes
Comprehensive PDF manual	-	Yes	Yes	Yes
Amazon S3	-	-	Yes	Yes
Backblaze B2	-	-	Yes	Yes
Dropbox	-	-	Yes	Yes
Microsoft OneDrive	-	-	Yes	Yes
Google Drive	-	-	Yes	Yes
Google Cloud Storage	-	-	Yes	Yes
Microsoft Azure Blob + File Storage	-	-	Yes	Yes
WebDAV	-	-	Yes	Yes
OpenStack Swift	-	-	Yes	Yes
Box	-	-	Yes	Yes
Site Manager synchronization	-	-	Yes	Yes
Command-line interface	-	-	-	Yes
Batch transfers	-	-	-	Yes
	Download	**Select**	**Select**	**Select**

Go to Site File >> Site Manager

Protocol: SFTP – SSH File Transfer Protocol
Host: cse5520.engr.uconn.edu
Port: <leave blank>
Logon Type: Interactive
User: <your netid>
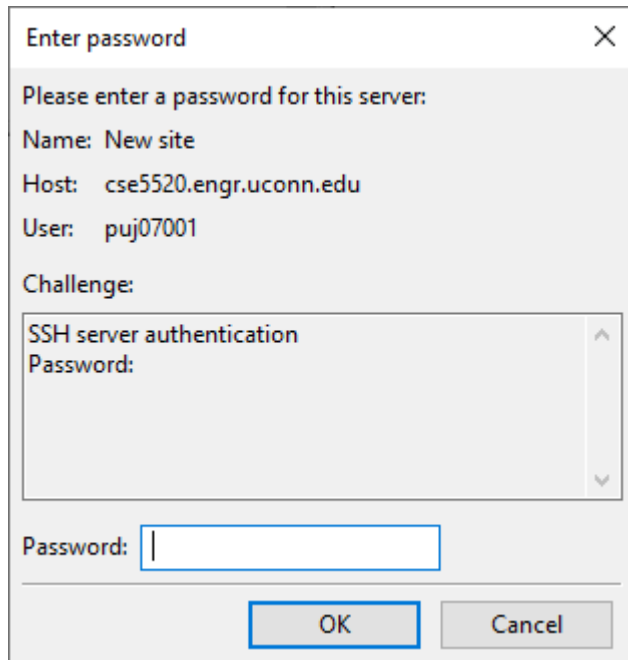
Hit "Connect" button

Enter your password

Enter password   ✕

Please enter a password for this server:
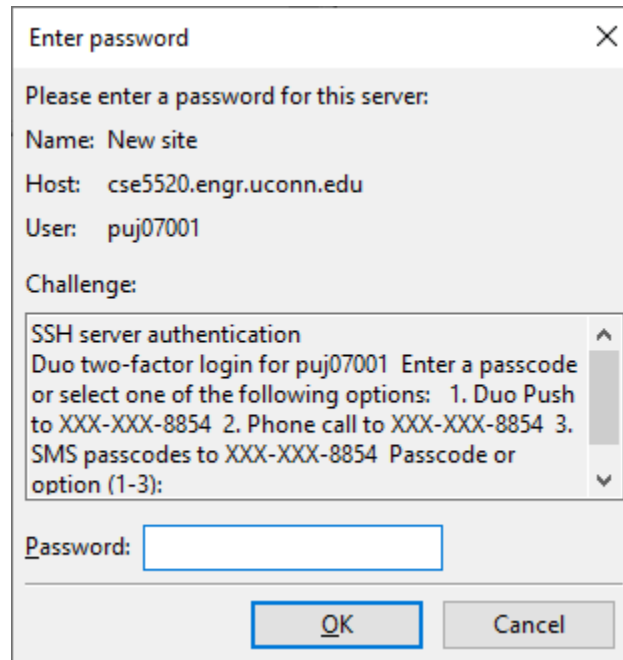
Name: New site

Host: cse5520.engr.uconn.edu

User: puj07001

Challenge:

SSH server authentication Password:	

Password: [   ]

[OK]   [Cancel]

Duo two-factor login option

Enter password   ✕

Please enter a password for this server:

Name: New site

Host: cse5520.engr.uconn.edu
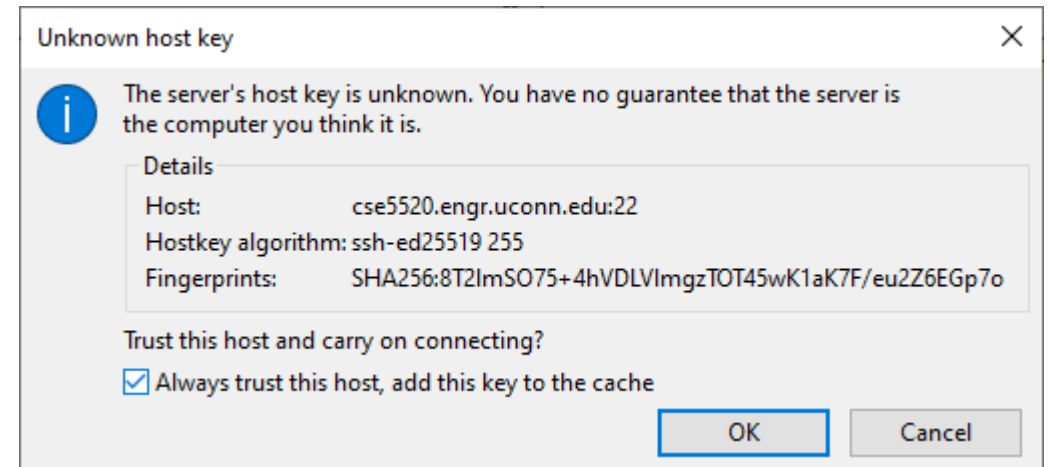
User: puj07001

Challenge:

SSH server authentication Duo two-factor login for puj07001 Enter a passcode or select one of the following options: 1. Duo Push to XXX-XXX-8854 2. Phone call to XXX-XXX-8854 3. SMS passcodes to XXX-XXX-8854 Passcode or option (1-3):	

Password: [   ]

[OK]   [Cancel]

Check "Always Trust" box and click "OK"

Unknown host key   ✕

ⓘ The server's host key is unknown. You have no guarantee that the server is the computer you think it is.

Details

Host: cse5520.engr.uconn.edu:22

Hostkey algorithm: ssh-ed25519 255

Fingerprints: SHA256:8T2ImSO75+4hVDLVImgzTOT45wK1aK7F/eu2Z6EGp7o

Trust this host and carry on connecting?

☑ Always trust this host, add this key to the cache

[OK]   [Cancel]

Local Site (Your local computer)

Remote Site (Linux Server)

You can create your own directory structure on the server inside your home directory.

Drag your local python file (*.py) to here. This will copy your local file to the server.

Use PuTTY to run commands in the server

Secure Shell (SSH) client for windows – PuTTY https://www.putty.org/
MacOS users can open terminal window and connect to server directly using the following command:
$ ssh <netid>@cse5520.engr.uconn.edu

Login using NetId, password, Duo 2-factor authentication

Host Name: cse5520.engr.uconn.edu
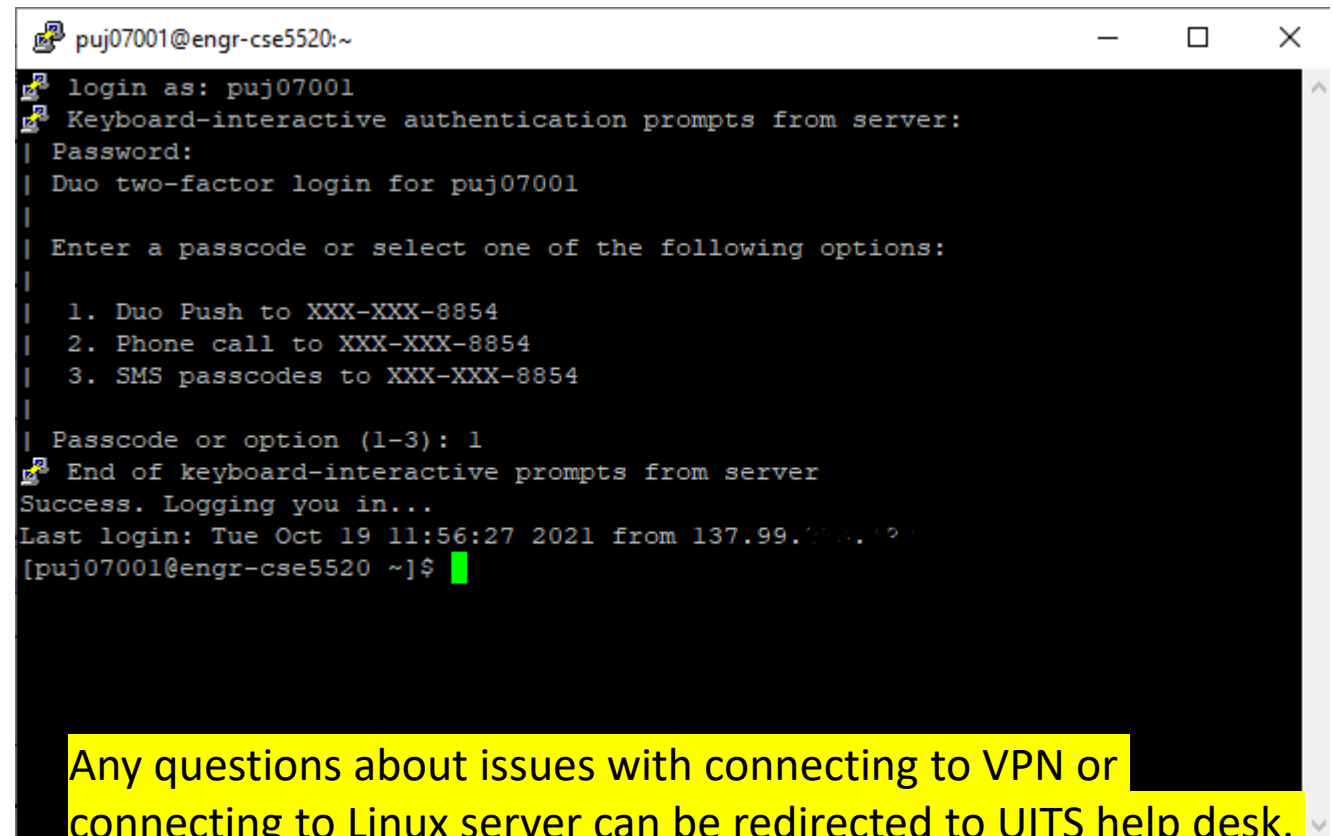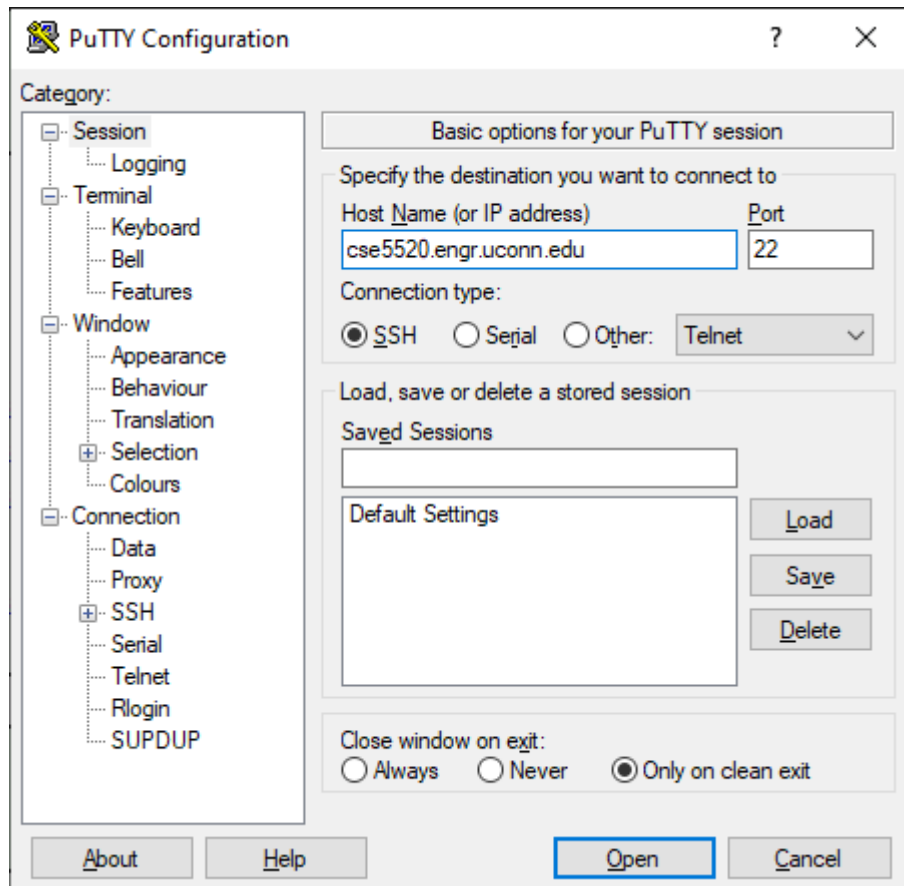

```
login as: puj07001
Keyboard-interactive authentication prompts from server:
| Password:
| Duo two-factor login for puj07001
|
| Enter a passcode or select one of the following options:
|
|  1. Duo Push to XXX-XXX-8854
|  2. Phone call to XXX-XXX-8854
|  3. SMS passcodes to XXX-XXX-8854
|
| Passcode or option (1-3): 1
 End of keyboard-interactive prompts from server
Success. Logging you in...
Last login: Tue Oct 19 11:56:27 2021 from 137.99.
[puj07001@engr-cse5520 ~]$
```

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Basic Linux commands

Print Working Directory (pwd) – Prints your current working directory

```
puj07001@engr-cse5520:~/cse5520f21/map_demo                    —    □    ×
[puj07001@engr-cse5520 ~]$ pwd
/home/puj07001
[puj07001@engr-cse5520 ~]$ ls
cse5520f21
[puj07001@engr-cse5520 ~]$ cd cse5520f21/
[puj07001@engr-cse5520 cse5520f21]$ pwd
/home/puj07001/cse5520f21
[puj07001@engr-cse5520 cse5520f21]$ ls
map_demo  python-venv-cse5520f21   requirements.txt
[puj07001@engr-cse5520 cse5520f21]$ cd map_demo/
[puj07001@engr-cse5520 map_demo]$ ls
maps.py  nohup.out
[puj07001@engr-cse5520 map_demo]$ python3 maps.py
Dash is running on http://0.0.0.0:8050/

 * Serving Flask app 'maps' (lazy loading)
 * Environment: production
   WARNING: This is a development server. Do not use it in a production deployme
nt.
   Use a production WSGI server instead.
 * Debug mode: on
```
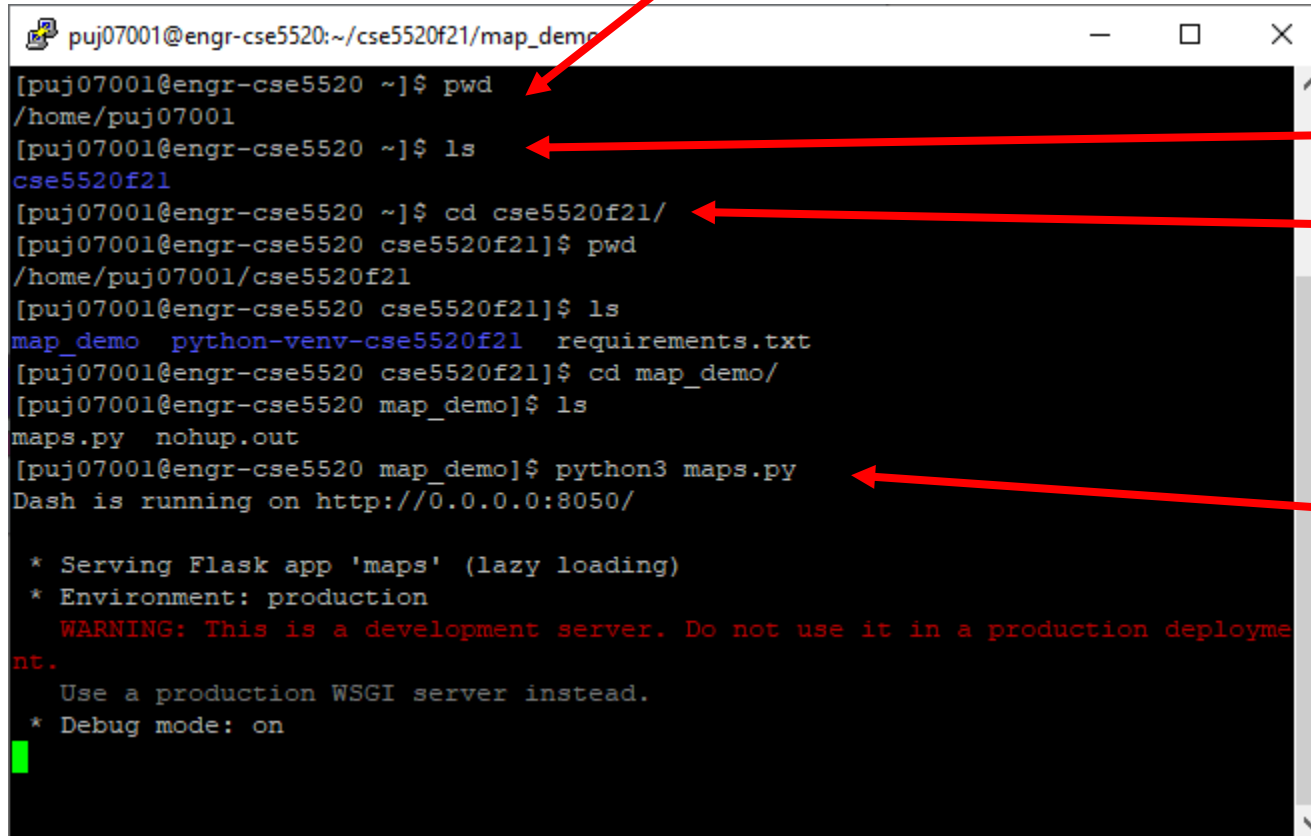
ls – lists contents of current working directory

cd <directory path> – change working directory

Run python programs (your dash program)
Make sure you setup your host and port properly in your python code file.
app.run_server(debug=True, host='0.0.0.0',
          port=8050,
          threaded=True)

If you need to install python libraries, you can install them using the following command.
$ python3 -m pip install dash

Same way as we install library in our local machine

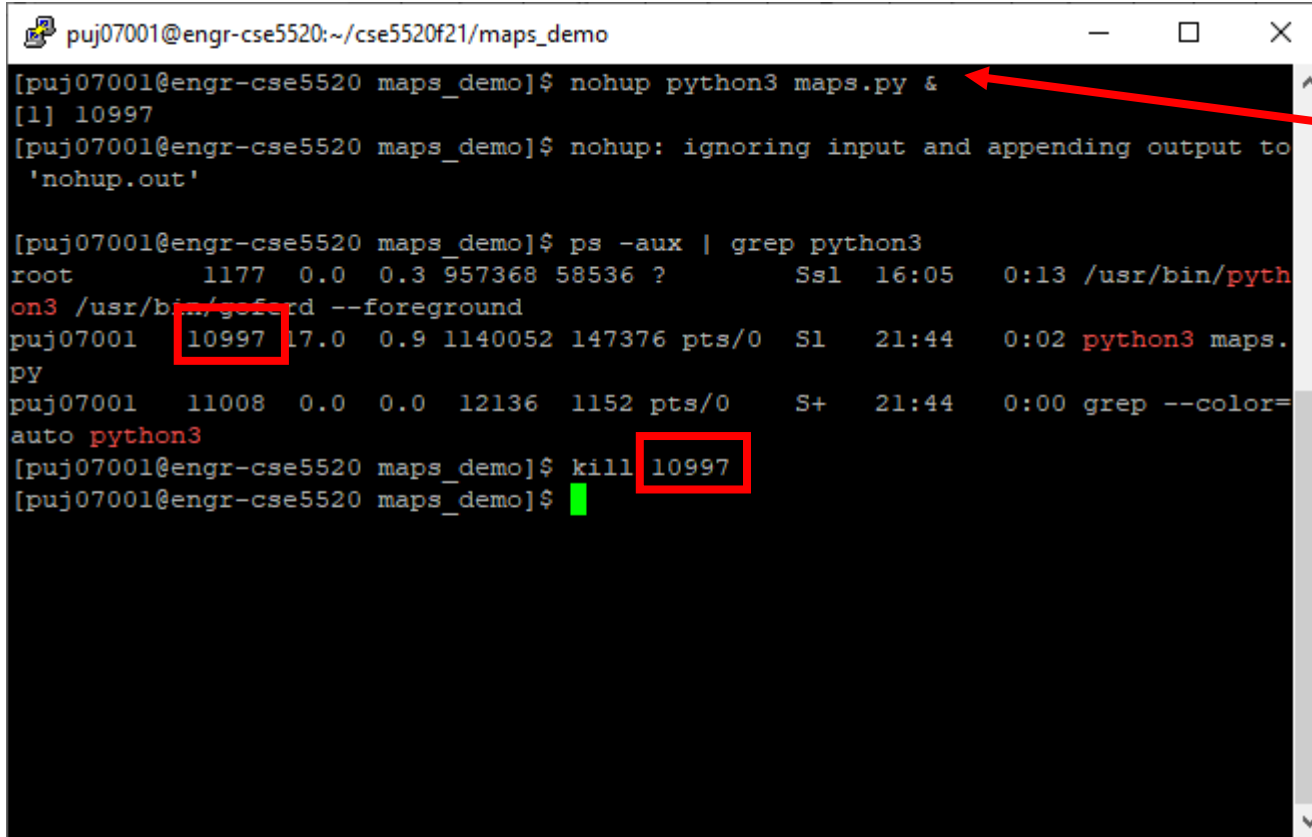Once you run this program, you can browse your dashboard at http://cse5520.engr.uconn.edu:80xx

When you run python programs this way, it will stop when you disconnect the session (close PuTTY window)

To run python program in the background, use "nohup" which stands for "No hangup". Program keeps running when you disconnect from the session.

Output from the program is redirected to nohup.out file in the working directory. Output log from your python program can be monitored by opening nohup.out file (from FileZilla).

Press CTRL + C to cancel current program and get to command prompt

Run python program with "nohup".
$ nohup python3 maps.py &

Python program now runs in the background. You can see the list of python programs running in the background by running ps command.
$ ps -aux | grep python3

You can disconnect the session by closing puTTY screen, but your python program will keep running in the background.

To kill the process, find pid of the process using "ps" command and kill the process using "kill" command.
$ ps -aux | grep python3
$ kill <Pid>

Port Assignments to students

First Name	Last Name	Port
Anthony	Lorenzetti	8060
Alexander	Zevin	8061
Allison	Gagliano	8062
Ankit	Bhardwaj	8063
Bala	Swaminathan	8064
Chenyu	Zhang	8065
Devin	McConnell	8066
Dongping	Zhu	8067
Frank	Zappulla	8068
Graham	Roberts	8069
Honglin	Wang	8070
Huiqun	Huang	8071
Jackie	Ramirez	8072
Jack	Grossman	8073
Kaustubh	Prabhu	8074
Lenny	Adams	8075

First Name	Last Name	Port
Majid	Feiz	8076
Michael	McDermott	8077
Nidhibahen	Shah	8078
Peter	Zaffetti	8079
Peng	Chen	8080
Piyush	Shrivastav	8081
Sanjiv	Dinakar	8082
Shariq	Khan	8083
Seth	Fortin	8084
Shubhangi	Shubhangi	8085
Sybille	Legitime	8086
Lynn	Pepin	8087
Vandana	Gupta	8088
Vidyalaxmi	Kandarpa	8089
William	Manka	8090
Zhixia	Ding	8091