

CS655 Geni Project

Handwritten Digit Recognition Application

Instruction on how to reproduce the application

1. **Create geni node.** We **highly don't recommend** you to create geni node through Rspec since we find that the node which is created through Rspec is unable to install python 3.7 correctly. To manually create the nodes, just add 2 VM, connect them together, one's name is server and the other is client, enable public ip for them, and that's all. Not complicated.
2. Log in to **server node**, run **server.sh**, this will help you set up all the things in the server node, including: install python3.7 and related library, download server.py through wget, finally make it run. We use nohup command so in this way even though you disconnect from the node, the program keeps running.
3. Log in to **client node**, run **client.sh**, this will help you set up all the things in the client node, including: install python3.7 and related library, download index.html and back CGI.py to correct path and deal with permission, install and enable apache2.
4. There is still **one more step to do on client node**:
 - a. run: `sudo nano /etc/apache2/conf-available/cgi-enabled.conf`
 - b. in the file, type in:

```
<Directory "/var/www/html/cgi-enabled/">
    Options +ExecCGI
    AddHandler cgi-script .cgi .py
</Directory>
```
 - c. save it and exit.
 - d. run: `sudo a2enconf cgi-enabled`
 - e. run: `sudo systemctl restart apache2`
this will help you enable python cgi for apache2.
5. Now you should be able to get access to the web interface by visiting:
<http://204.102.244.76/> in the browser.