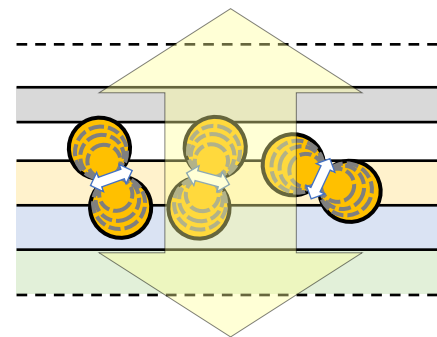
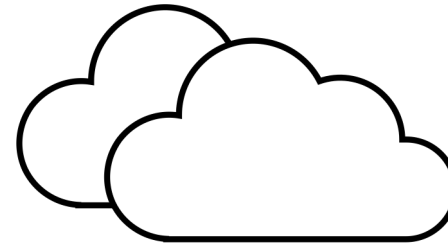
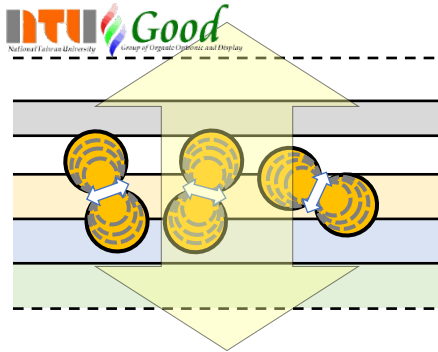


# How to use the Goodlab simulator

Author: Wei-Kai Lee



# Cloud Deployment



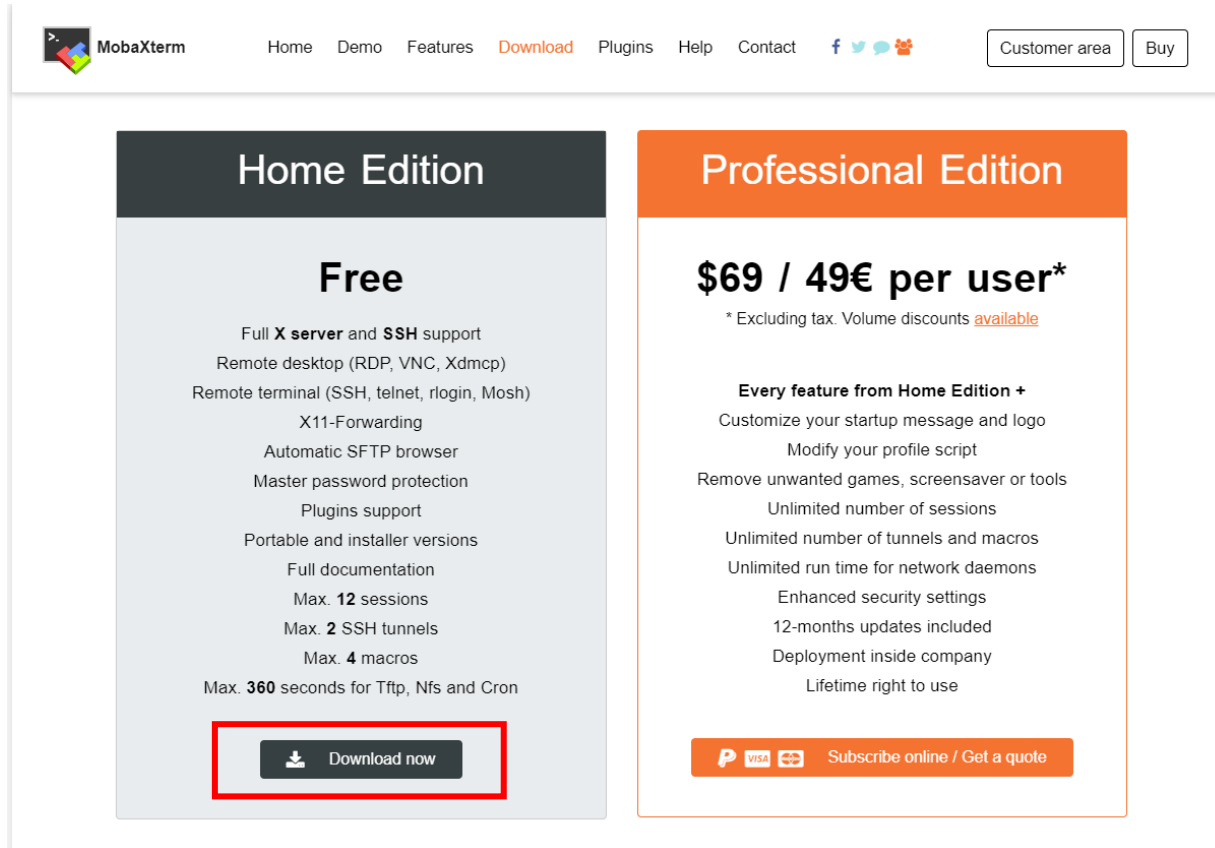
Google Cloud Platform

The software is deployed on the google cloud platform with ubuntu 18.04 and SSD 50 GB.



# Download MobaXterm

<https://mobaxterm.mobatek.net/download.html>



The screenshot shows the MobaXterm website's download page. The navigation bar at the top includes links for Home, Demo, Features, Download (highlighted in orange), Plugins, Help, and Contact, along with social media icons and buttons for 'Customer area' and 'Buy'. The main content is divided into two columns. The left column, titled 'Home Edition' in a dark grey box, lists features for a 'Free' version, including support for X server, SSH, RDP, VNC, Xdmcp, telnet, and Mosh, as well as X11-Forwarding, SFTP browser, password protection, plugins, and portable versions. It also specifies limits: 12 sessions, 2 SSH tunnels, 4 macros, and 360 seconds for Tftp, Nfs, and Cron. A 'Download now' button with a download icon is highlighted with a red rectangle. The right column, titled 'Professional Edition' in an orange box, lists a price of '\$69 / 49€ per user\*' (excluding tax, with volume discounts available) and features that include everything from the Home Edition plus customization options, removal of unwanted elements, unlimited sessions and tunnels, enhanced security, 12-month updates, company deployment, and a lifetime right to use. A button at the bottom of this column says 'Subscribe online / Get a quote' with logos for PayPal, Visa, and Mastercard.


**MobaXterm** Home Demo Features **Download** Plugins Help Contact f t s o

Customer area Buy

## Home Edition

### Free

- Full **X server** and **SSH** support
- Remote desktop (RDP, VNC, Xdmcp)
- Remote terminal (SSH, telnet, rlogin, Mosh)
- X11-Forwarding
- Automatic SFTP browser
- Master password protection
- Plugins support
- Portable and installer versions
- Full documentation
- Max. **12** sessions
- Max. **2** SSH tunnels
- Max. **4** macros
- Max. **360** seconds for Tftp, Nfs and Cron

 Download now




## Professional Edition

### \$69 / 49€ per user\*


\* Excluding tax. Volume discounts [available](#)





**Every feature from Home Edition +**

- Customize your startup message and logo
- Modify your profile script
- Remove unwanted games, screensaver or tools
- Unlimited number of sessions
- Unlimited number of tunnels and macros
- Unlimited run time for network daemons
- Enhanced security settings
- 12-months updates included
- Deployment inside company
- Lifetime right to use

   Subscribe online / Get a quote

# Download MobaXterm

 MobaXterm


Home Demo Features **Download** Plugins Help Contact    


Customer area Buy

---

## MobaXterm Home Edition

Download MobaXterm Home Edition (current version):

 **MobaXterm Home Edition v20.1**  
(Portable edition)

 **MobaXterm Home Edition v20.1**  
(Installer edition)


Download previous stable version: [MobaXterm Portable v12.4](#) [MobaXterm Installer v12.4](#)

You can also get early access to the latest features and improvements by downloading MobaXterm Preview version

MobaXterm Preview Version

By downloading MobaXterm software, you accept [MobaXterm terms and conditions](#)

You can download MobaXterm and plugins sources [here](#)

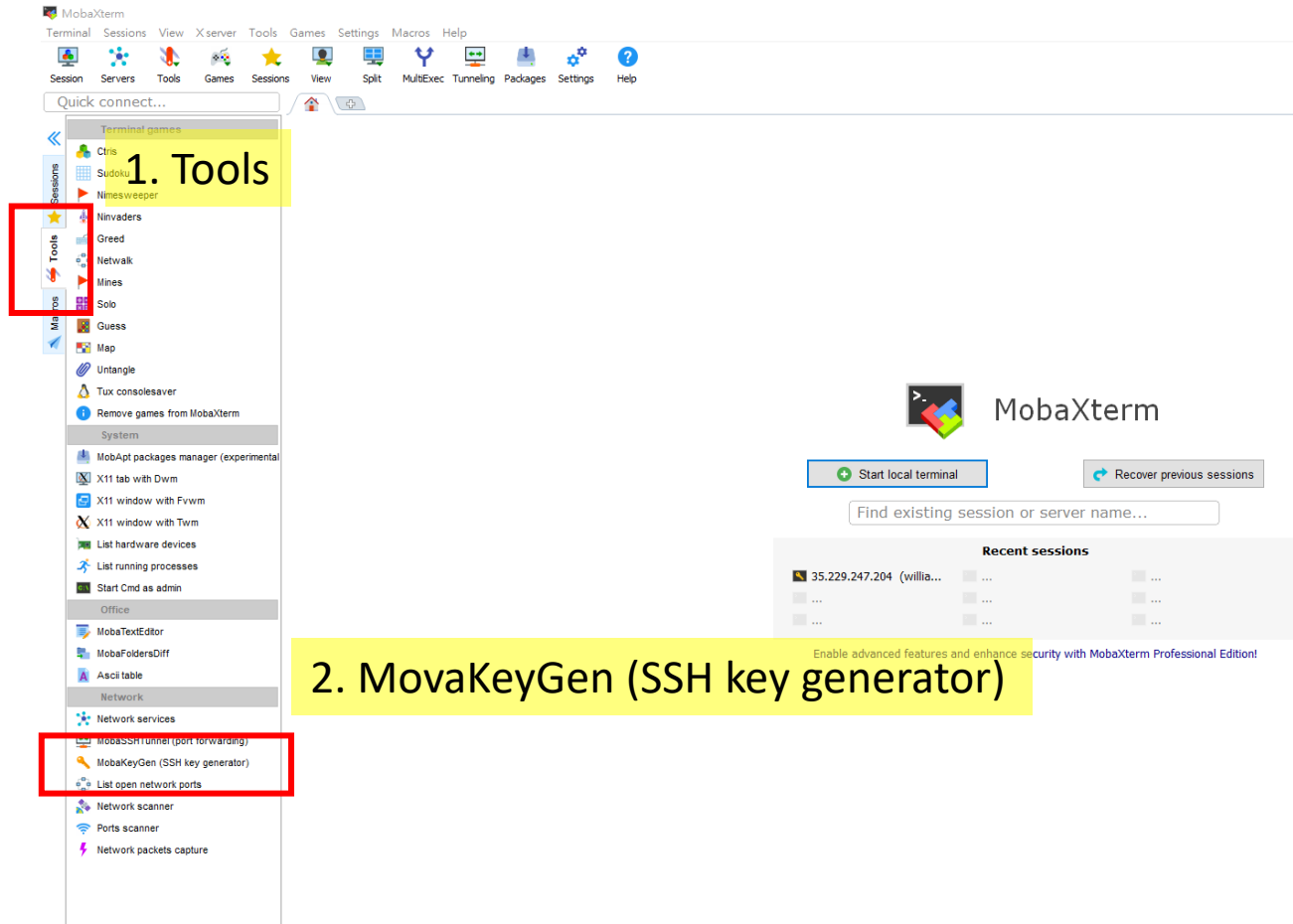
 If you use MobaXterm inside your company, you should consider subscribing to [MobaXterm Professional Edition](#): your subscription will give you access to professional support and to the "Customizer" software. This customizer will allow you to generate personalized versions of MobaXterm including your own logo, your default settings and your welcome message. Please [contact us](#) for more information.



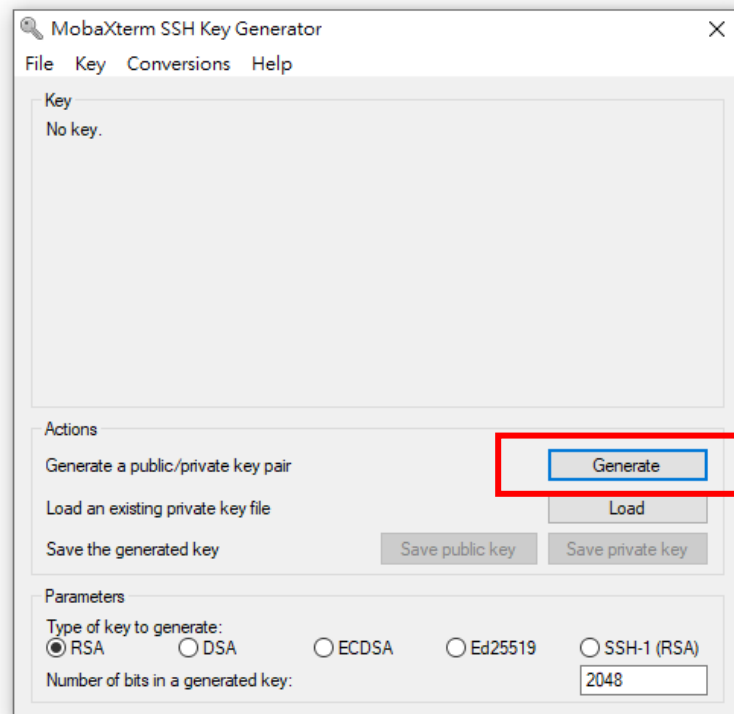
**Install MobaXterm**



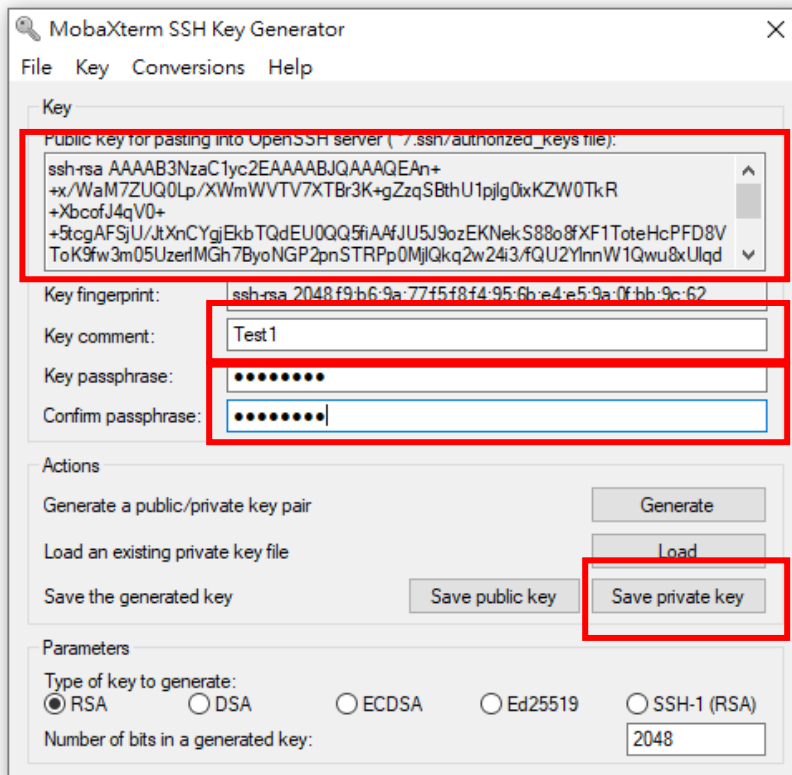
# Public/Private Key (SSH)



# Public/Private Key (SSH)



# Public/Private Key (SSH)



The image shows the MobaXterm SSH Key Generator window. It has a menu bar with 'File', 'Key', 'Conversions', and 'Help'. The 'Key' tab is active. The 'Key' section contains a text area for the public key, a 'Key fingerprint' field, a 'Key comment' field, and 'Key passphrase' and 'Confirm passphrase' fields. The 'Actions' section has buttons for 'Generate', 'Load', 'Save public key', and 'Save private key'. The 'Parameters' section has radio buttons for 'Type of key to generate' (RSA, DSA, ECDSA, Ed25519, SSH-1 (RSA)) and a 'Number of bits in a generated key' field.

Key

Public key for pasting into OpenSSH server ( / .ssh/authorized\_keys file):

```
ssh-rsa AAAAB3NzaC1yc2EAAAABJQAAQEA+  
+x/WaM7ZUQ0Lp/XWmVVTV7XTBr3K+gZzqSBthU1pjlG0xKZW0TkR  
+XbcfJ4qV0+  
+5tcgAFSjU/ltXnCYgiEkbTQdEU0QQ5fiAAfJU5J9ozEKNekS88o8fXF1ToteHcPFD8V  
ToK9fw3m05UzerfMGh7ByoNGP2pnSTRPp0MjIQkq2w24i3/fQU2YinnW1Qwu8xUlqd
```

Key fingerprint: ssh-rsa 2048:f9:b6:9a:77:f5:f8:f4:95:6b:e4:e5:9a:0f:bb:9c:62

Key comment: Test 1

Key passphrase: .....

Confirm passphrase: .....

Actions

Generate a public/private key pair

Load an existing private key file

Save the generated key

Parameters

Type of key to generate:  
☒ RSA ☐ DSA ☐ ECDSA ☐ Ed25519 ☐ SSH-1 (RSA)

Number of bits in a generated key: 2048

5. Send to server owner

4. Copy public key

1. User name: **Test1**

2. password

3. Save private key

6. keep yourself

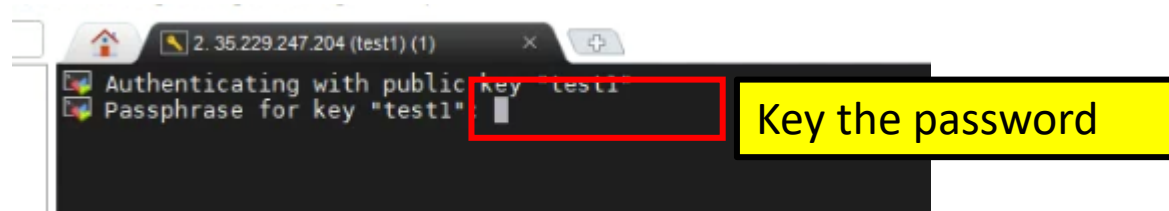
# Link to the server (on google cloud platform)

The screenshot shows the MobaXterm 'Session settings' dialog box. The 'Terminal' tab is selected. The 'SSH' option is chosen under 'Quick connect'. The 'Basic SSH settings' section is active, showing 'Remote host' as '35.229.247.204', 'Specify username' checked with 'Test1' entered, and 'Port' as '22'. The 'Advanced SSH settings' section is also visible, with 'X11-Forwarding' and 'Compression' checked, 'Remote environment' set to 'Interactive shell', 'SSH-browser type' set to 'SFTP protocol', and 'Use private key' checked with the path 'C:\Users\kai\Desktop\private key.p' entered. The 'Execute macro at session start' is set to '<none>'. The 'OK' and 'Cancel' buttons are at the bottom.

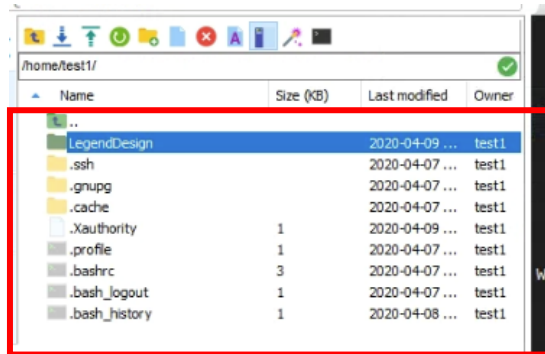
1. Create new session
2. Select SSH
3. Host IP
4. User name
5. Select Advanced SSH settings
6. Load the private key saved in the previous slide



# Link to the server (on google cloud platform)

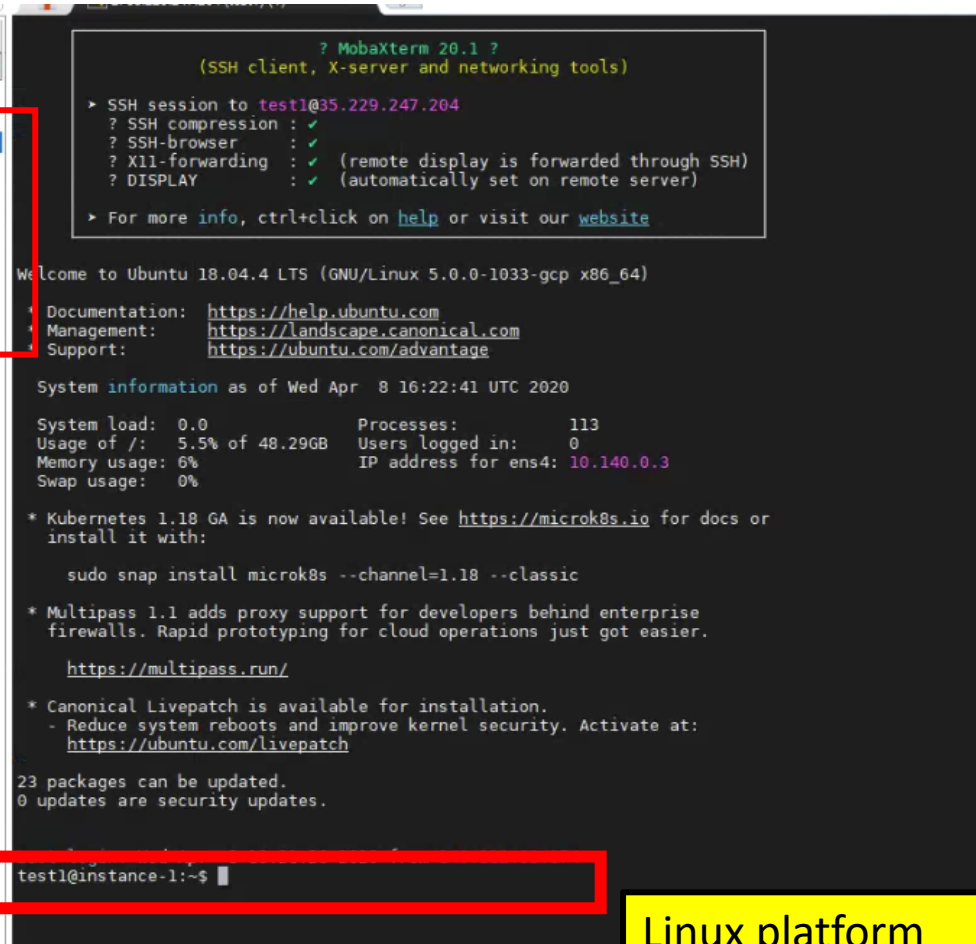


# Link to the server (on google cloud platform)



Name	Size (KB)	Last modified	Owner
..			
LegendDesign		2020-04-09 ...	test1
.ssh		2020-04-07 ...	test1
.gnupg		2020-04-07 ...	test1
.cache		2020-04-07 ...	test1
.Xauthority	1	2020-04-09 ...	test1
.profile	1	2020-04-07 ...	test1
.bashrc	3	2020-04-07 ...	test1
.bash_logout	1	2020-04-07 ...	test1
.bash_history	1	2020-04-08 ...	test1

Directory



```
? MobaXterm 20.1 ?
(SSh client, X-server and networking tools)

> SSH session to test1@35.229.247.204
? SSH compression : ✓
? SSH-browser      : ✓
? X11-forwarding   : ✓ (remote display is forwarded through SSH)
? DISPLAY          : ✓ (automatically set on remote server)

> For more info, ctrl+click on help or visit our website

Welcome to Ubuntu 18.04.4 LTS (GNU/Linux 5.0.0-1033-gcp x86_64)

Documentation: https://help.ubuntu.com
Management:   https://landscape.canonical.com
Support:       https://ubuntu.com/advantage

System information as of Wed Apr  8 16:22:41 UTC 2020

System load: 0.0          Processes:            113
Usage of /:  5.5% of 48.29GB Users logged in:        0
Memory usage: 6%          IP address for ens4: 10.140.0.3
Swap usage:  0%

* Kubernetes 1.18 GA is now available! See https://microk8s.io for docs or
install it with:

    sudo snap install microk8s --channel=1.18 --classic

* Multipass 1.1 adds proxy support for developers behind enterprise
firewalls. Rapid prototyping for cloud operations just got easier.

    https://multipass.run/

* Canonical Livepatch is available for installation.
- Reduce system reboots and improve kernel security. Activate at:
    https://ubuntu.com/livepatch

23 packages can be updated.
0 updates are security updates.

test1@instance-1:~$
```

Linux platform

# Go to the execution directory

```
test1@instance-1:~$  
test1@instance-1:~$ cd LegendDesign/src/Execution/  
test1@instance-1:~/LegendDesign/src/Executions$ ls -al  
total 228  
drwxrwxr-x 3 test1 test1 4096 Apr  8 16:24 .  
drwxrwxr-x 14 test1 test1 4096 Apr  8 16:24 ..  
-rw-rw-r-- 1 test1 test1 1552 Apr  8 16:24 DOFExtractor.pyc  
-rw-rw-r-- 1 test1 test1 7902 Apr  8 16:24 DOFExtractorExample.pyc  
-rw-rw-r-- 1 test1 test1 3479 Apr  8 16:24 DataMatrixAnalyzerScript.pyc  
-rw-rw-r-- 1 test1 test1 17786 Apr  8 16:24 DeviceFieldCmd.pyc  
-rw-rw-r-- 1 test1 test1 10087 Apr  8 16:24 DeviceOpticsCmd.pyc  
drwxrwxr-x 3 test1 test1 4096 Apr  8 16:24 Examples  
-rw-rw-r-- 1 test1 test1 16293 Apr  8 16:24 FarFieldCmd.pyc  
-rw-rw-r-- 1 test1 test1 2497 Apr  8 16:24 LazyCmd.py  
-rw-rw-r-- 1 test1 test1 12207 Apr  8 16:24 ModeDistributionAnalyzerCmd.pyc  
-rw-rw-r-- 1 test1 test1 38663 Apr  8 16:24 PowerDensityCmd.pyc  
-rw-rw-r-- 1 test1 test1 11715 Apr  8 16:24 PurcellFactorCmd.pyc  
-rw-rw-r-- 1 test1 test1 17720 Apr  8 16:24 TRACmd.pyc  
-rw-rw-r-- 1 test1 test1 3383 Apr  8 16:24 TextExecute.pyc  
-rw-rw-r-- 1 test1 test1 19291 Apr  8 16:24 materialMgrCmd.pyc  
-rw-rw-r-- 1 test1 test1 13896 Apr  8 16:24 materialOpticsCmd.pyc  
-rw-rw-r-- 1 test1 test1 22816 Apr  8 16:24 rtauCmd.pyc  
test1@instance-1:~/LegendDesign/src/Executions$  
test1@instance-1:~/LegendDesign/src/Executions$  
test1@instance-1:~/LegendDesign/src/Executions$
```

Execution file