

# AZURE LAB 10 (CLOUD init)

I just want to go through another way in which you can actually install packages on a Linux base machine. You have this concept known as cloud init, which is a standard that can be used for installing packages on your Linux based machines.

I have a YAML file. So YAML is again a markup language in which you can specify your configuration for cloud init.

Cloud init follows a very particular structure on how you can install packages. Here I'm saying to please upgrade the package index or market as true. And what are the packages that I want to install? I want to install the index web package.

**Below is the YAML file which you are going to use to install web package. You can also get the file from GitHub, if you are facing difficulties with it.**

```
(#cloud-config
```

```
package_upgrade: true
```

```
packages:
```

```
- nginx)
```



## TO BEGIN WITH THE LAB:

1. Log in to your Azure Portal.
2. There go to create resources and create Linux Virtual Machine.
3. While creating your machine keep in mind to select HTTP (80) as inbound port, so that outside traffic is allowed to your virtual machine.

# Create a virtual machine ...


## Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.


Subscription *	Free Trial
Resource group *	app-grp

[Create new](#)

## Instance details

Virtual machine name *	Linuxvm
Region *	(Asia Pacific) Central India
Availability options	No infrastructure redundancy required
Security type	Standard
Image *	 Ubuntu Server 20.04 LTS - x64 Gen2 (free services eligible)


[See all images](#) | [Configure VM generation](#)

 This image is compatible with additional security features. [Click here to swap to the Trusted launch security type.](#)

VM architecture	<input type="radio"/> Arm64 <input checked="" type="radio"/> x64
Run with Azure Spot discount	<input type="checkbox"/>
Size *	Standard_B1s - 1 vcpu, 1 GiB memory (₹642.10/month) (free services eligible)

[See all sizes](#)

Enable Hibernation (preview)	<input type="checkbox"/>
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 To enable Hibernation, you must register your subscription. [Learn more](#)

## Administrator account

Authentication type	<input type="radio"/> SSH public key <input checked="" type="radio"/> Password
Username *	demour
Password *	.....
Confirm password *	.....

### Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports \* ⓘ

- ☐ None
- ☒ Allow selected ports

Select inbound ports \*

HTTP (80), SSH (22) ✓

**i** All traffic from the internet will be blocked by default. You will be able to change inbound port rules in the VM > Networking page.

**Review + create**

< Previous

Next : Disks >

4. Once these steps are complete, leave everything to default and jump to Advanced page.
5. In the advanced page you can see an option as Custom data and cloud init.
6. There you need to paste your code, and it will install a web server onto your virtual machine.

# Create a virtual machine ...

Basics   Disks   Networking   Management   Monitoring   **Advanced**   Tags   Review + create

Add additional configuration, agents, scripts or applications via virtual machine extensions or cloud-init.

## Extensions

Extensions provide post-deployment configuration and automation.

Extensions ⓘ

[Select an extension to install](#)

## VM applications

VM applications contain application files that are securely and reliably downloaded on your VM after deployment. In addition to the application files, an install and uninstall script are included in the application. You can easily add or remove applications on your VM after create. [Learn more](#) ↗

[Select a VM application to install](#)

## Custom data and cloud init

Pass a cloud-init script, configuration file, or other data into the virtual machine **while it is being provisioned**. The data will be saved on the VM in a known location. [Learn more about custom data for VMs](#) ↗



Custom data

```
#cloud-config
package_upgrade: true
packages:
- nginx
```

ⓘ Custom data on the selected image will be processed by cloud-init.  
[Learn more about custom data for VMs](#) ↗

- Now go to review and create your virtual machine.
- Wait till it get deployed.

## ✓ Your deployment is complete

 Deployment name: CreateVm-canonical.0001-com-ubuntu-server-f...   Start time: 12/26/2023, 3:30:05 PM  
Subscription: [Free Trial](#)   Correlation ID: c06c02f0-f201-4b7f-a324-6728399f5b10   
Resource group: [app-grp](#)

∨ **Deployment details**

∧ **Next steps**

[Setup auto-shutdown](#)   Recommended

[Monitor VM health, performance and network dependencies](#)   Recommended

[Run a script inside the virtual machine](#)   Recommended

[Go to resource](#)

[Create another VM](#)

- Once the deployment is complete go to resource page. There you need to copy public IP address and paste it in a new tab.
- Hence, you can see that web server is successfully installed.



## Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to [nginx.org](http://nginx.org).  
Commercial support is available at [nginx.com](http://nginx.com).

*Thank you for using nginx.*