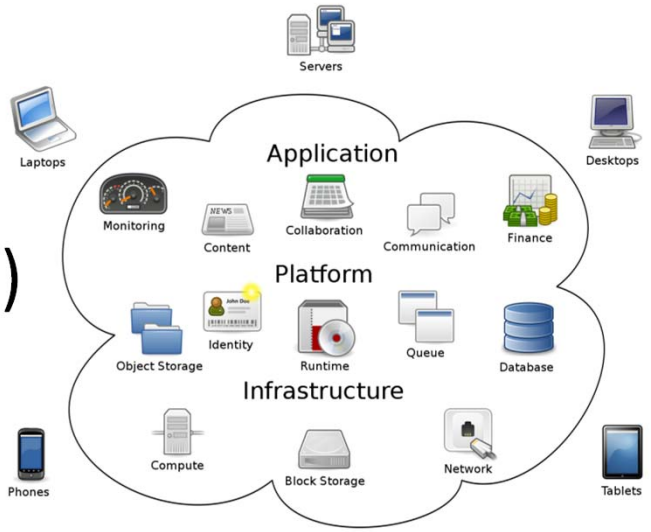
Install Linux on AWS

YoungMin Kwon

Amazon Web Services (AWS)

- Cloud computing
  - Computer system resources (storage, computing power, …) available to the user on-demand



- Amazon Web Services (AWS)
  - AWS is a cloud computing platform provided by Amazon

aws

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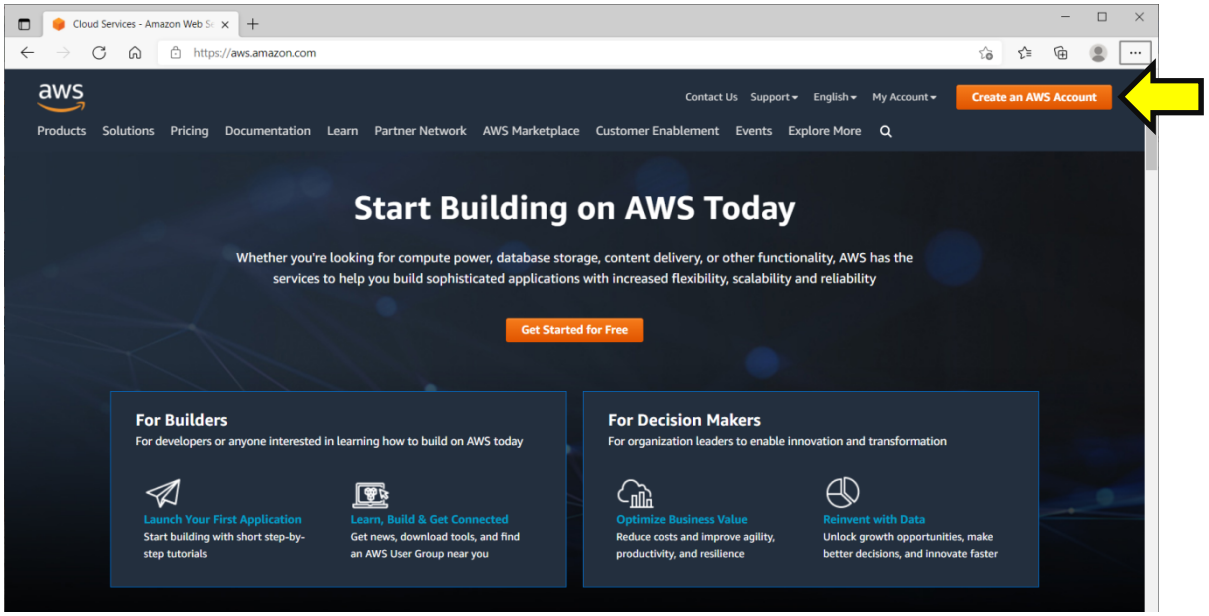
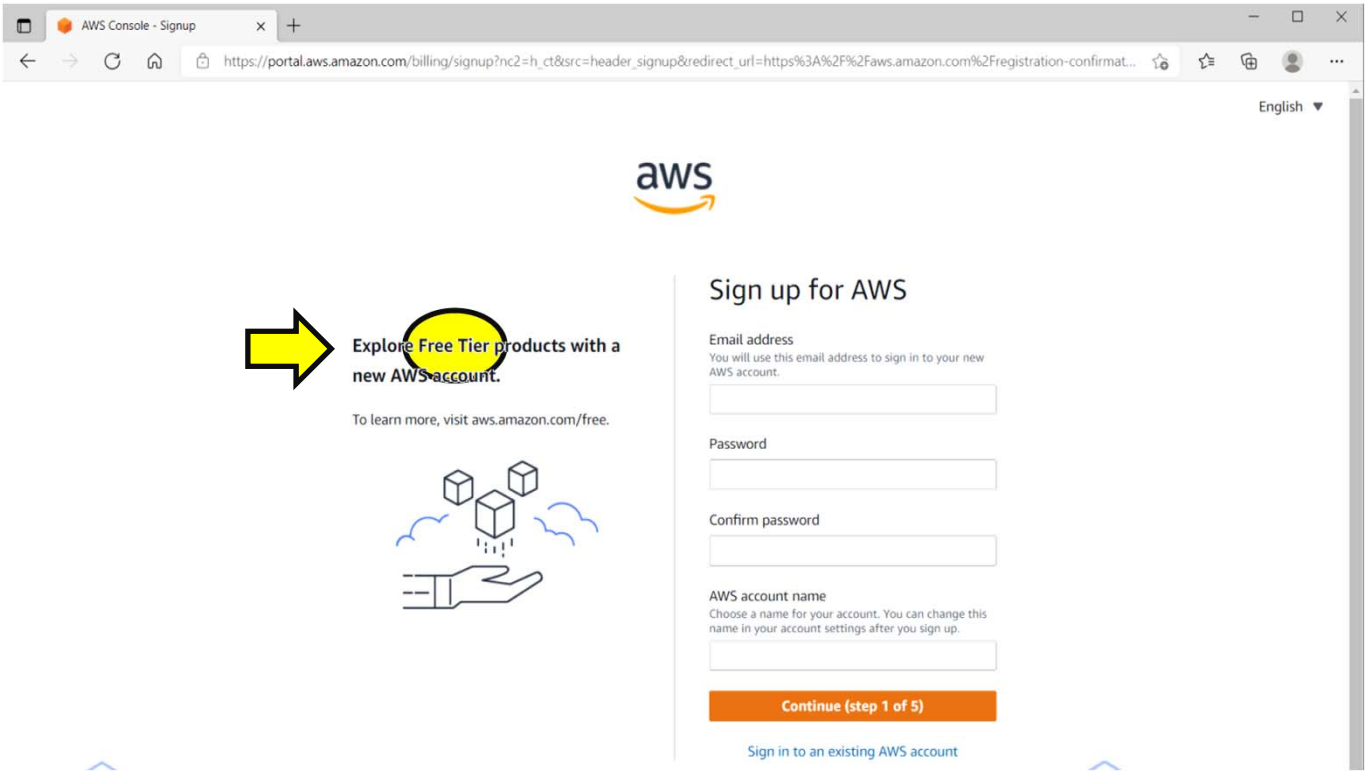
Create an AWS Account

- Goto
  - https://aws.amazon.com
  - Click on “Create an AWS Account” button…



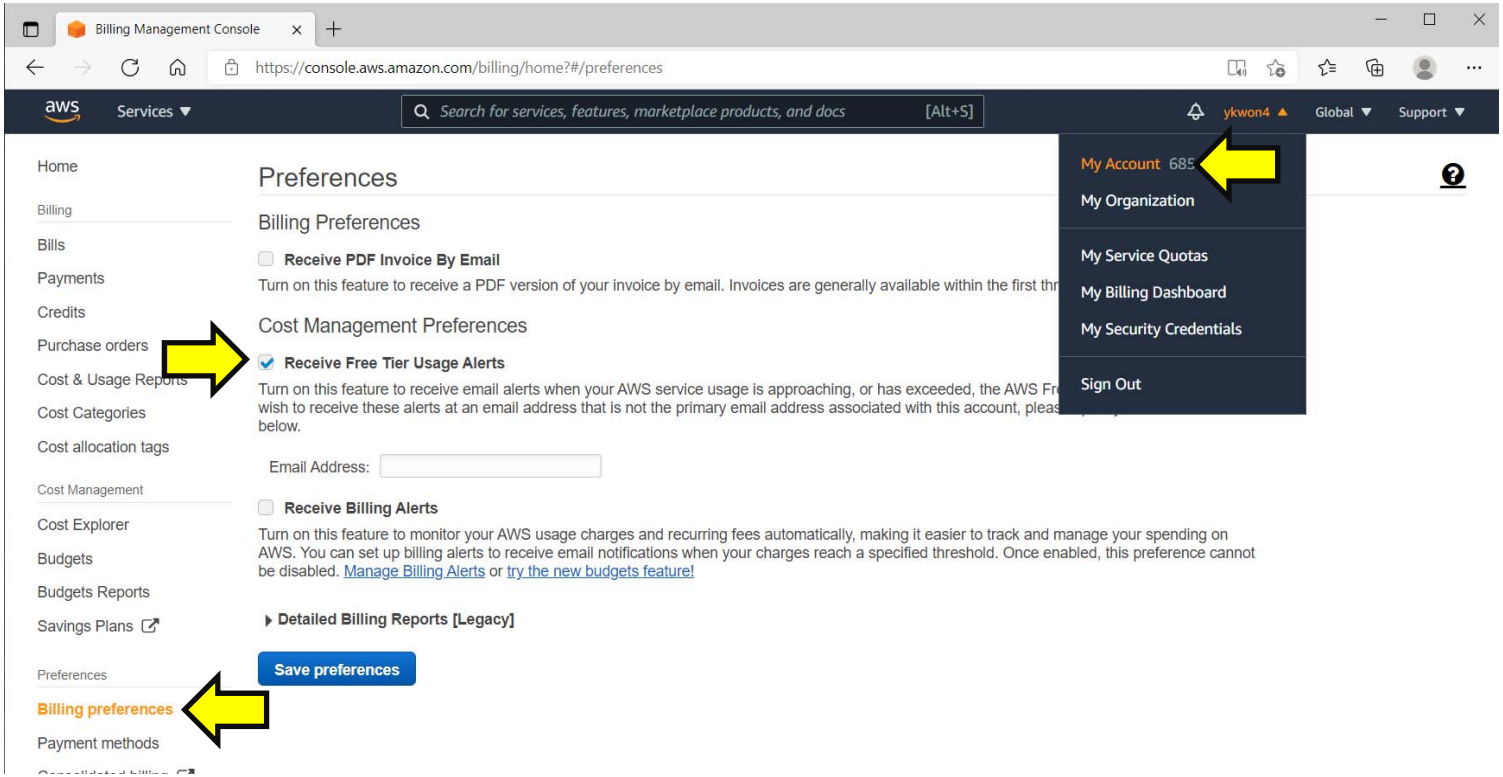
Create an AWS Account

- Create a free tier account



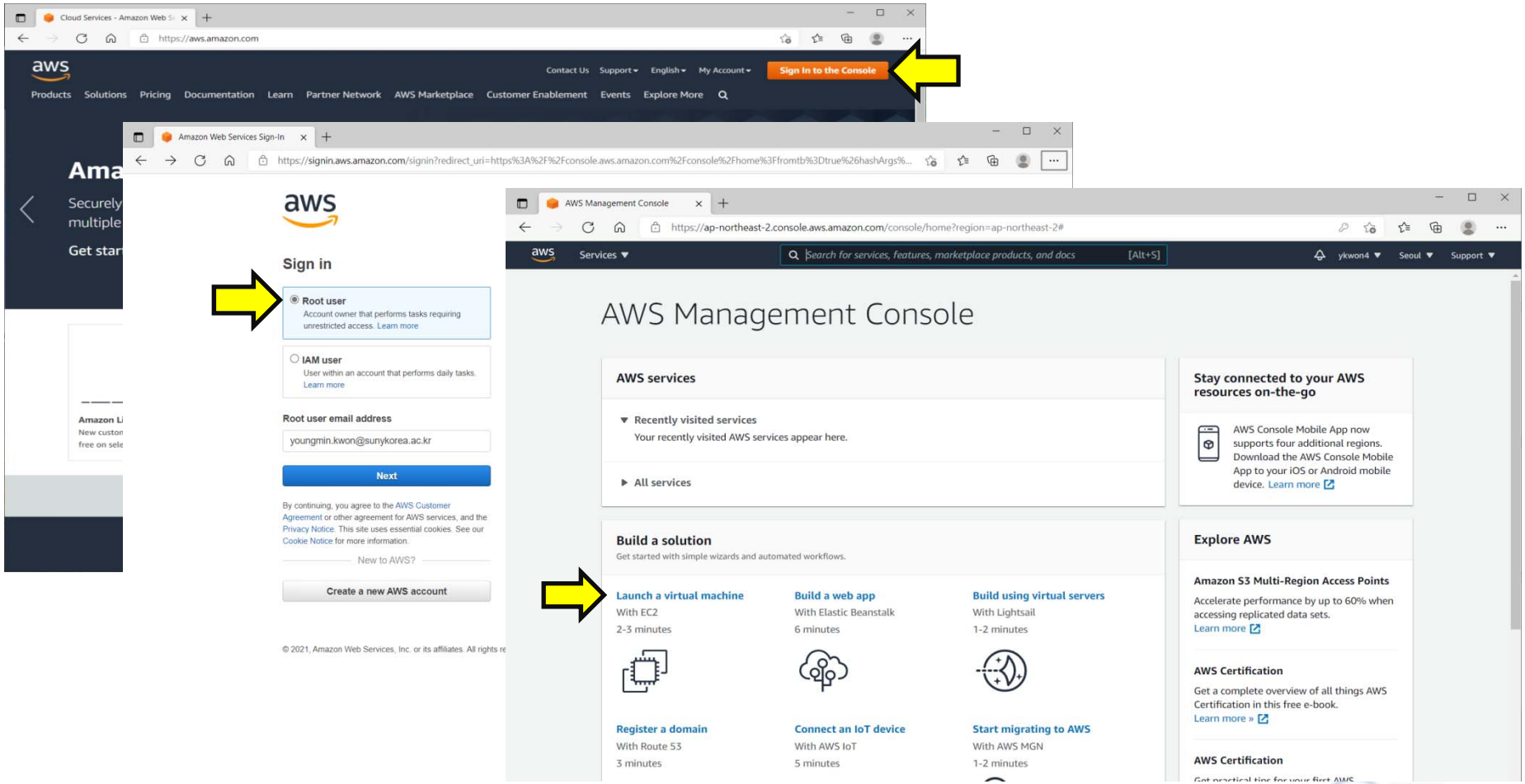
Set Free Tier Usage Alerts

- My Account ⇒ Billing preferences ⇒ Check Receive Free Tier Usage Alerts



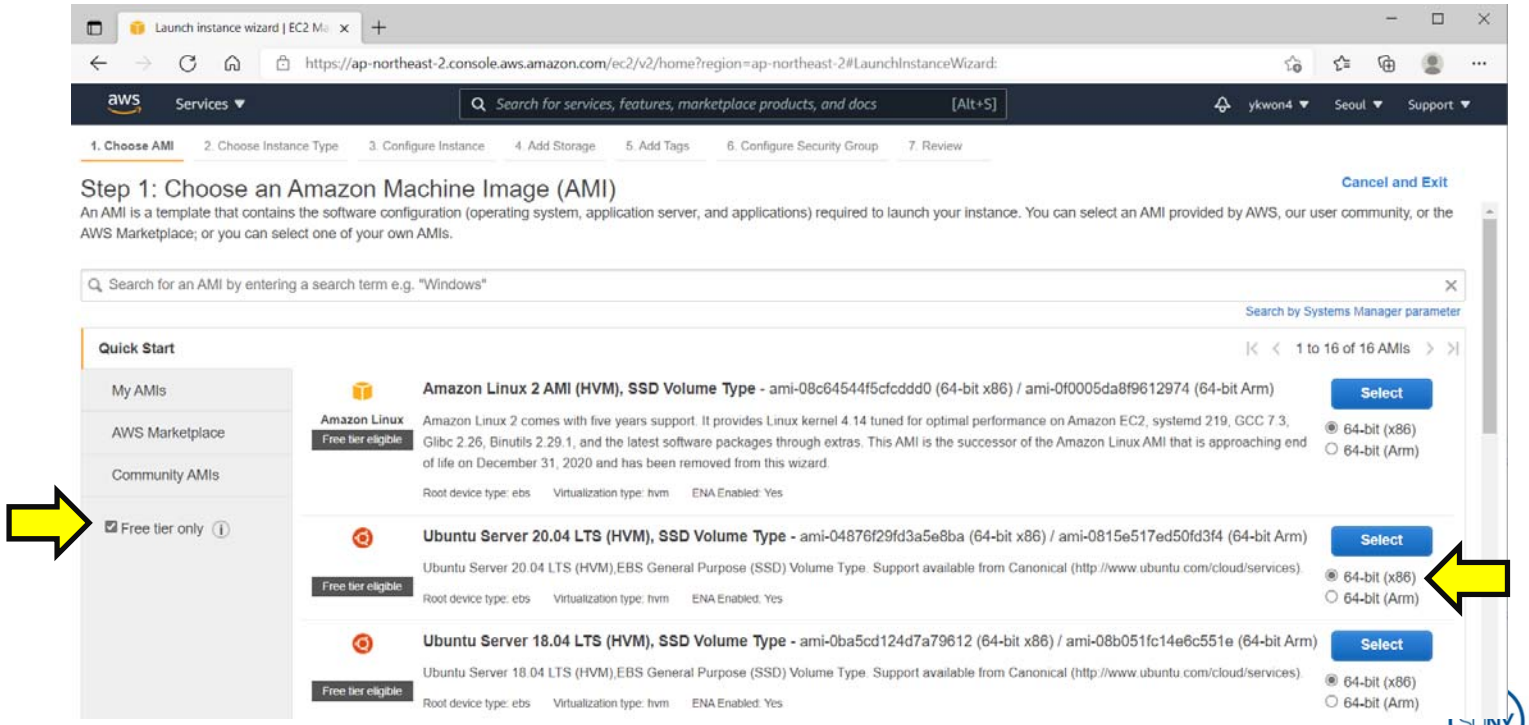
Create a Virtual Machine

- Sign in ⇒ Launch a virtual machine with EC2



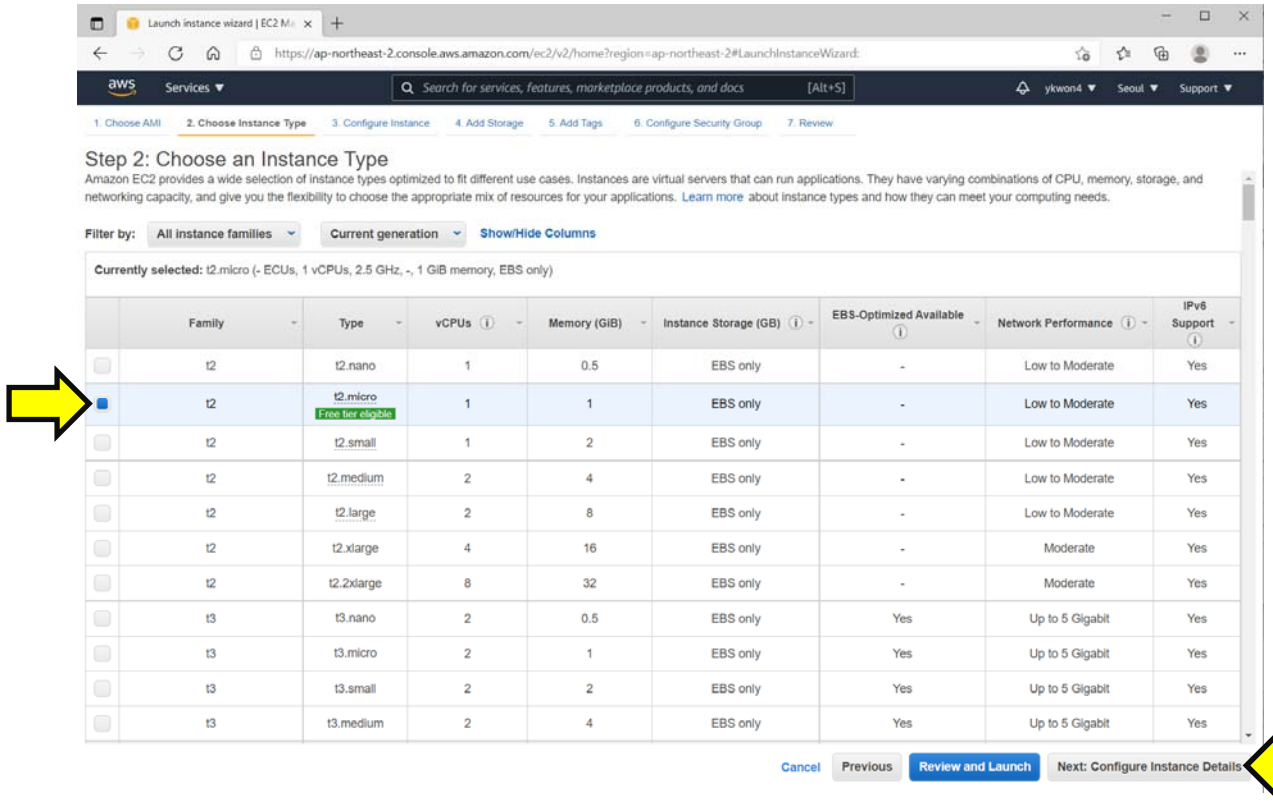
Create a Virtual Machine

- Mark “Free tier only”
- Select the latest 64-bit (x86) LTS version of Ubuntu
  - LTS: Long Term Support



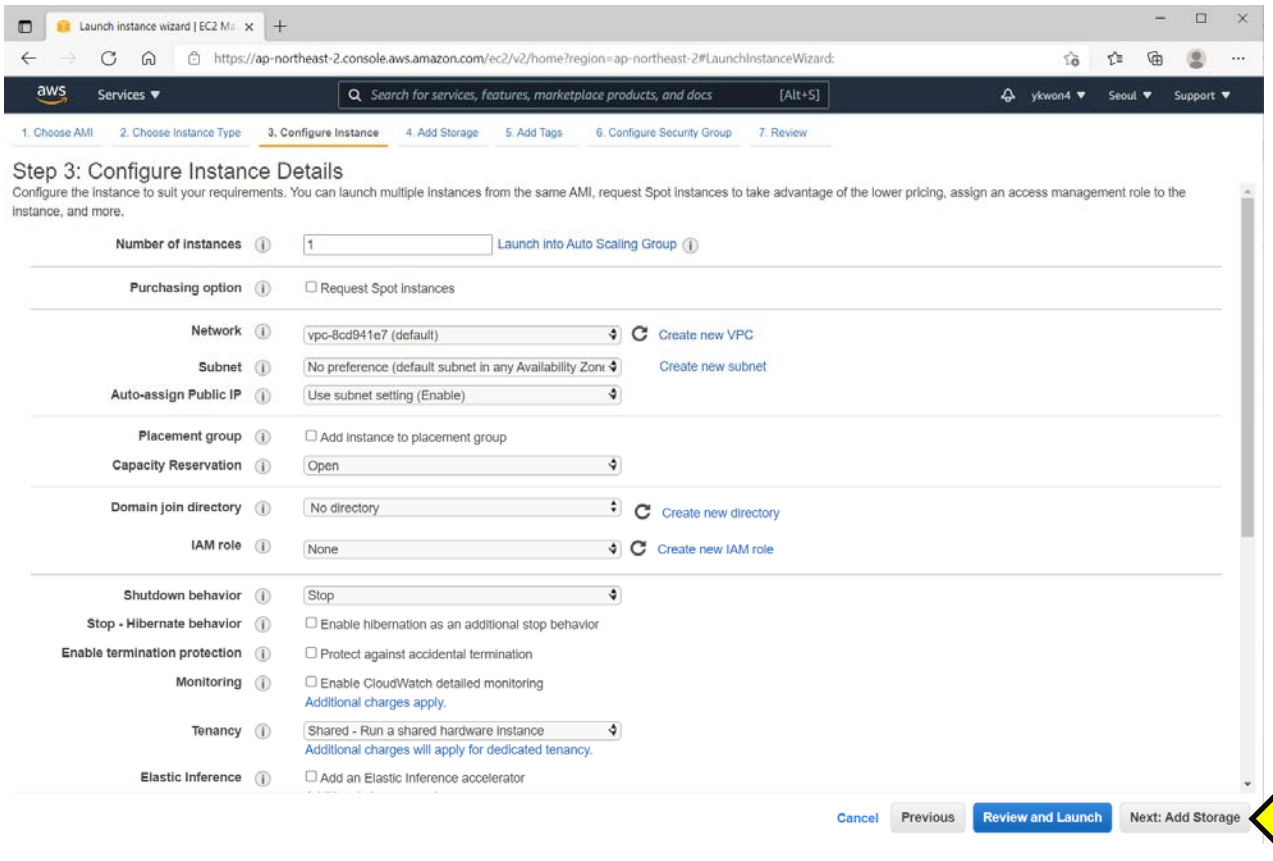
Create a Virtual Machine

- Select t2.micro (Free tier eligible)
- Click on “Next: Configure Instance Details”



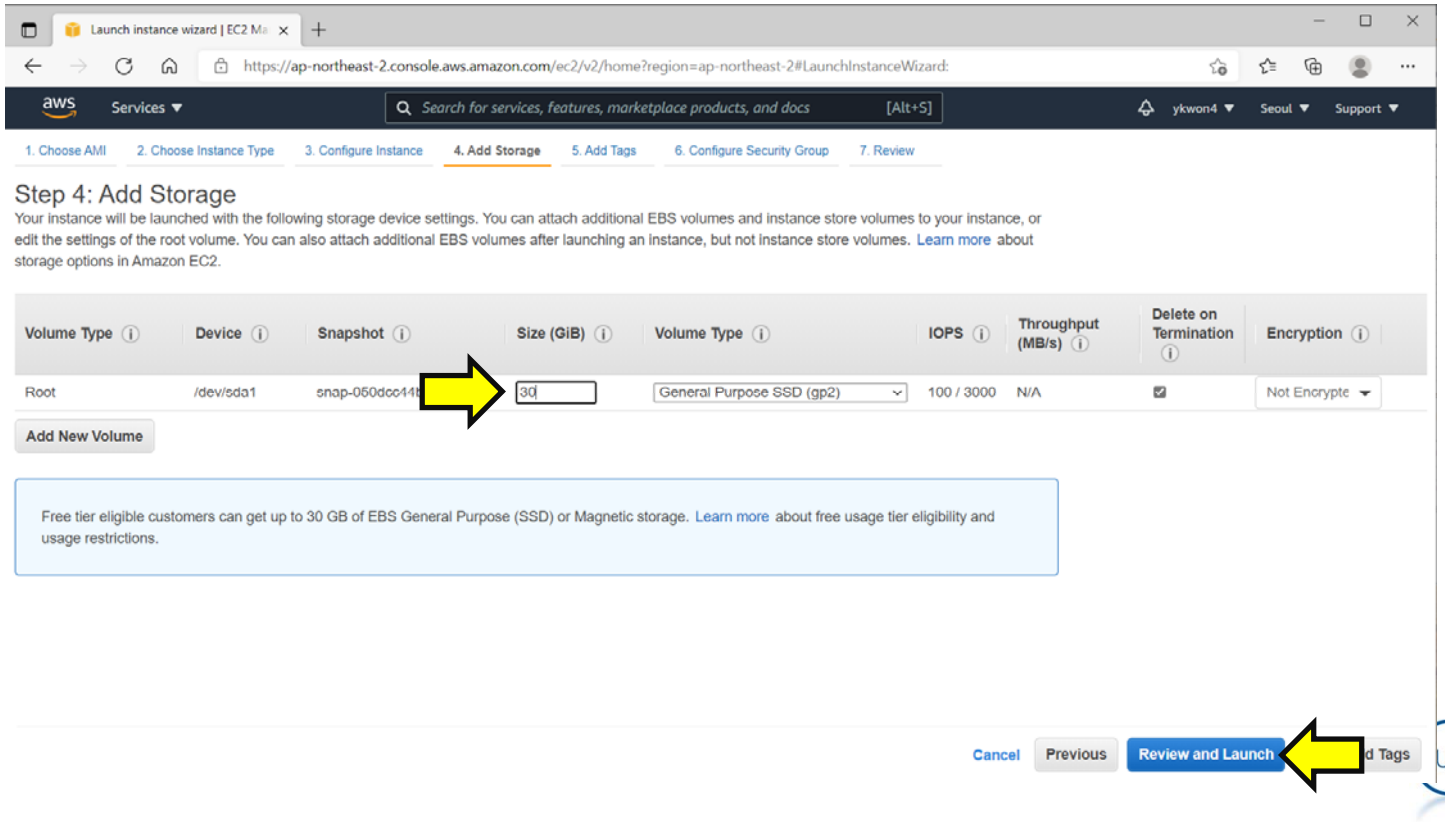
Create a Virtual Machine

- Click on “Next: Configure Instance Details”



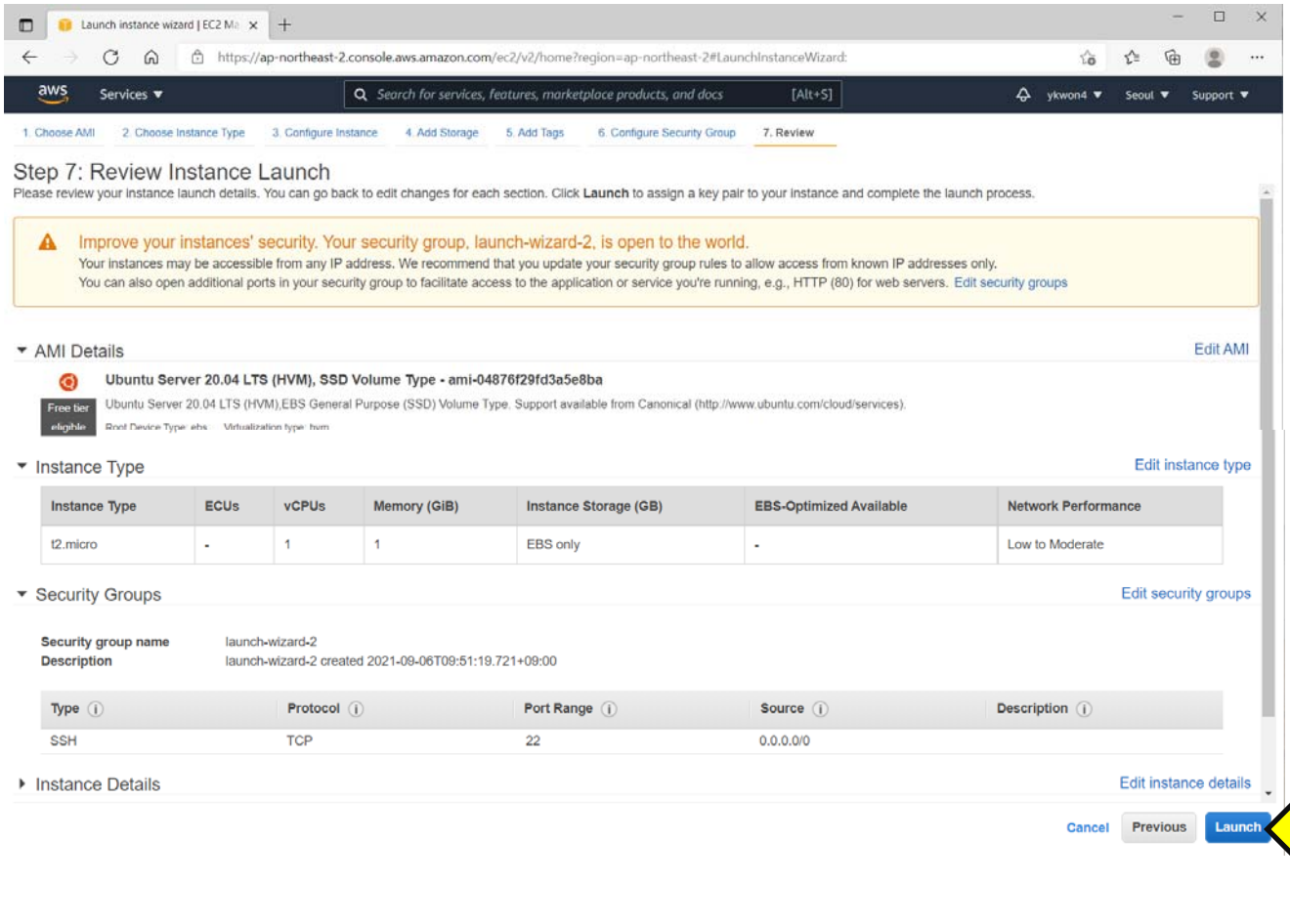
Create a Virtual Machine

- Enter 30 to Size (GiB)
- Click on “Review and Launch”



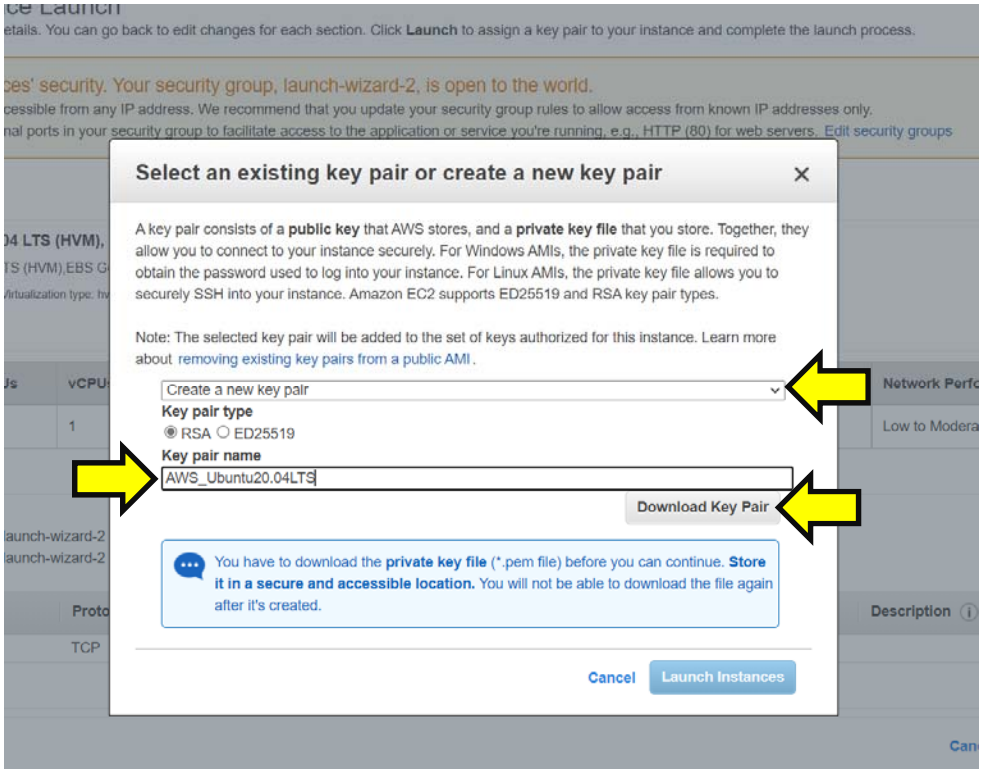
Create a Virtual Machine

- Click on “Launch”



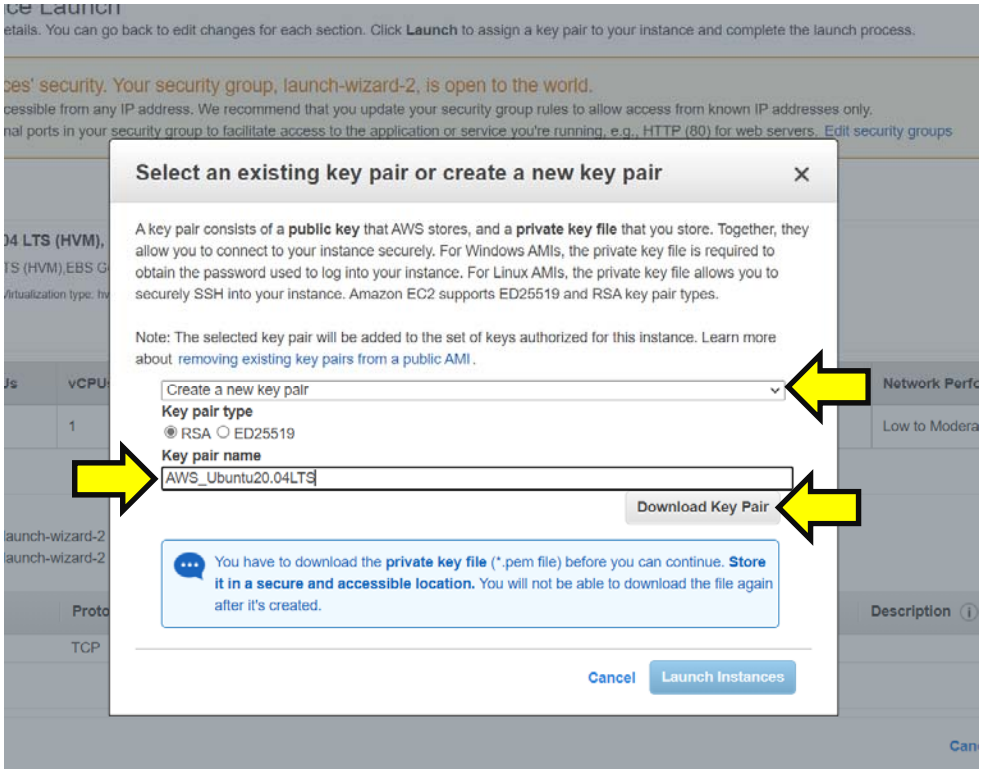
Create a Virtual Machine

- Select “Create a new key pair”
- Enter a Key pair name
- Click on “Download Key Pair”



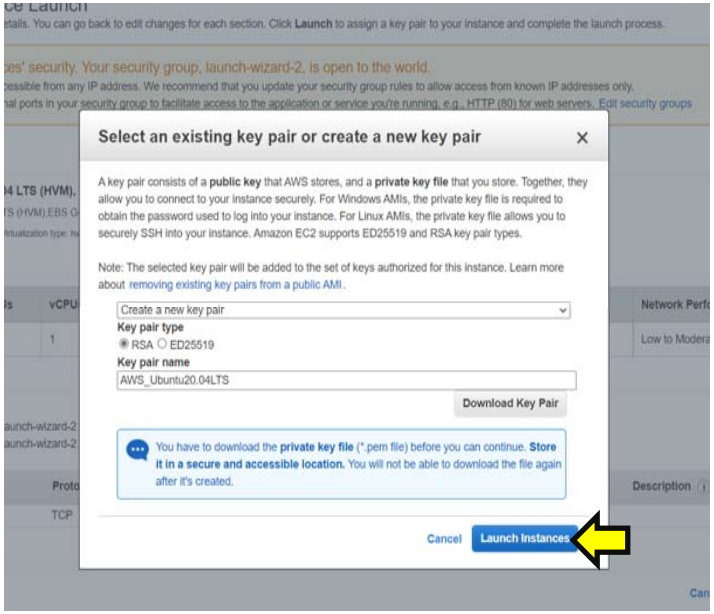
Create a Virtual Machine

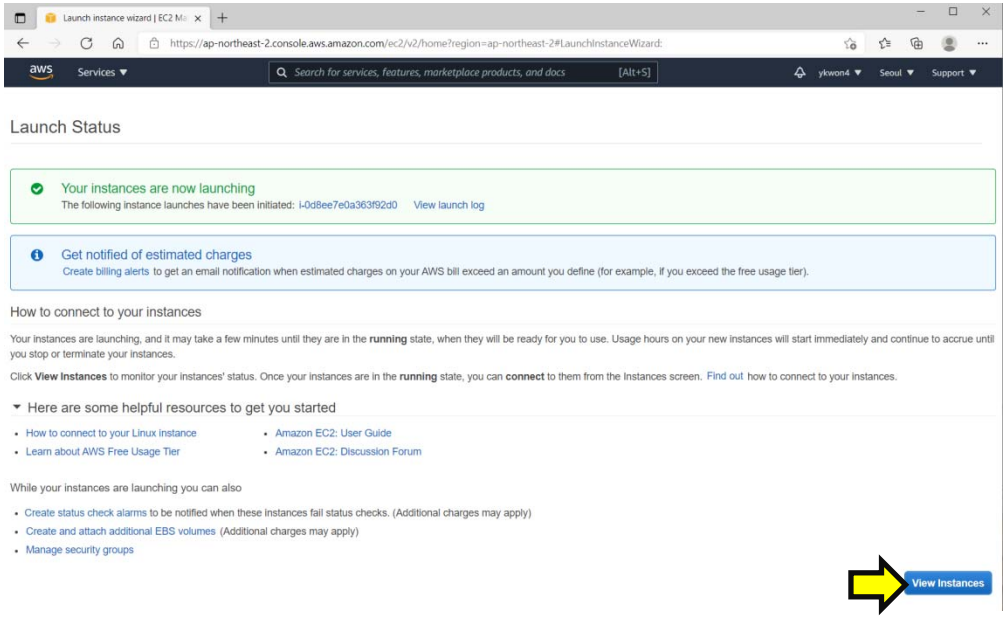
- Download the Key pair
  - Email the .pem file to yourself (to access the VM from other machines)



Create a Virtual Machine

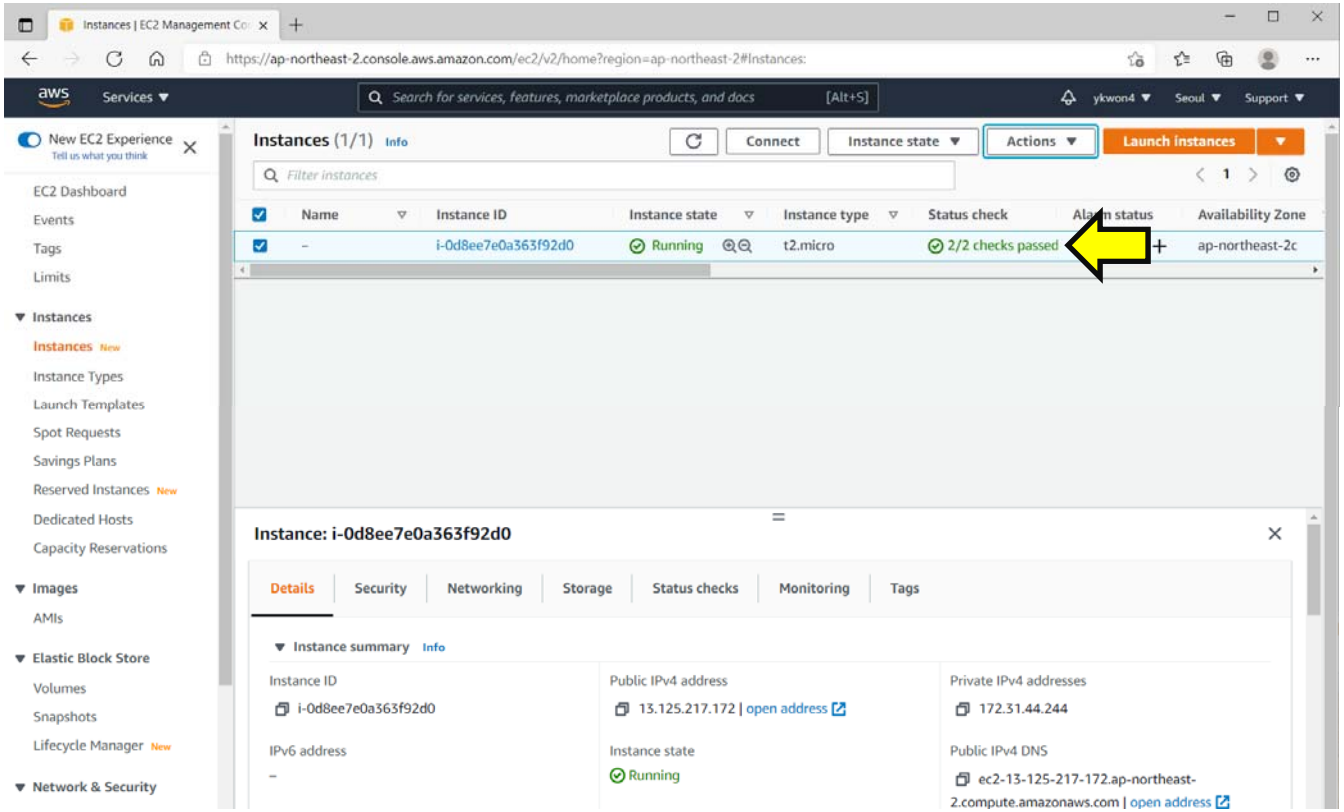
- Click on “Launch Instances”
- Click on “View Instances”





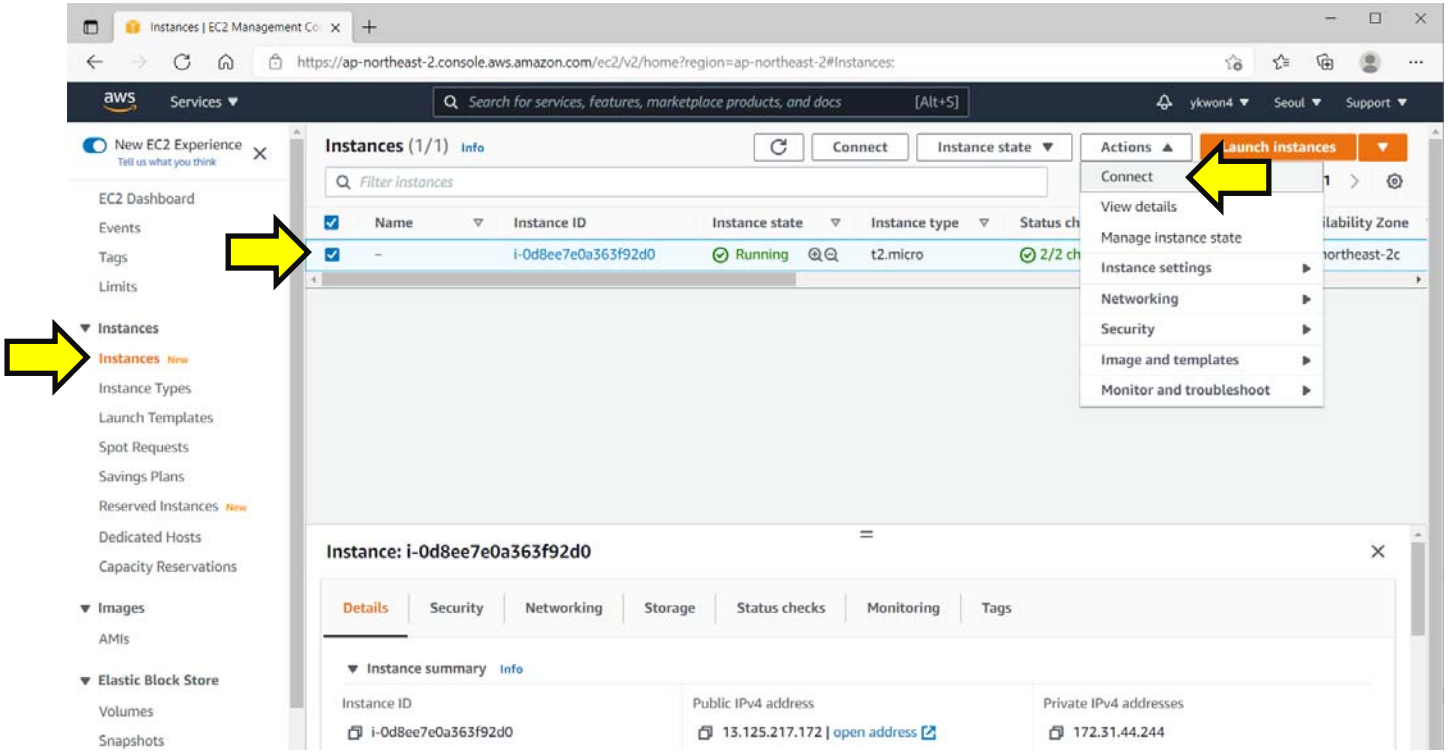
Create a Virtual Machine

- Wait until Status check becomes green
  - May need to refresh the page



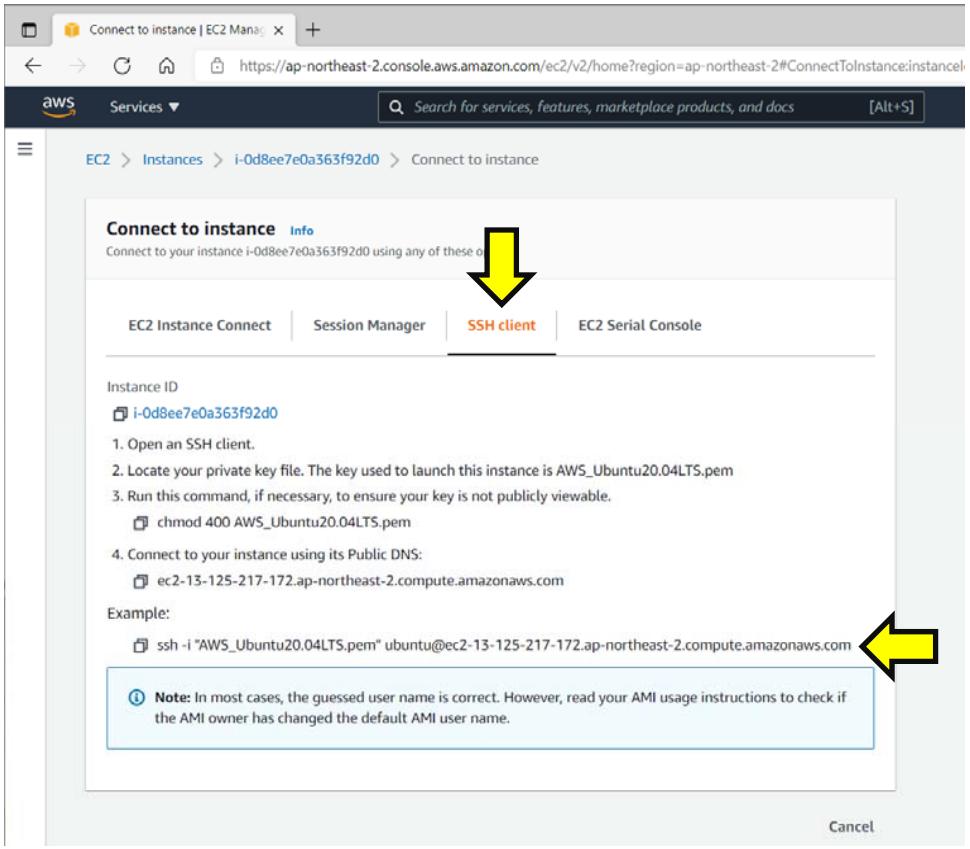
Connect to the VM

- "Instances" ⇒ Select the VM you created ⇒ "Actions" ⇒ "Connect"



Connect to the VM

- Click on “SSH client” tab
  - Copy the line after Example:



Connect to the VM (Linux, Mac)

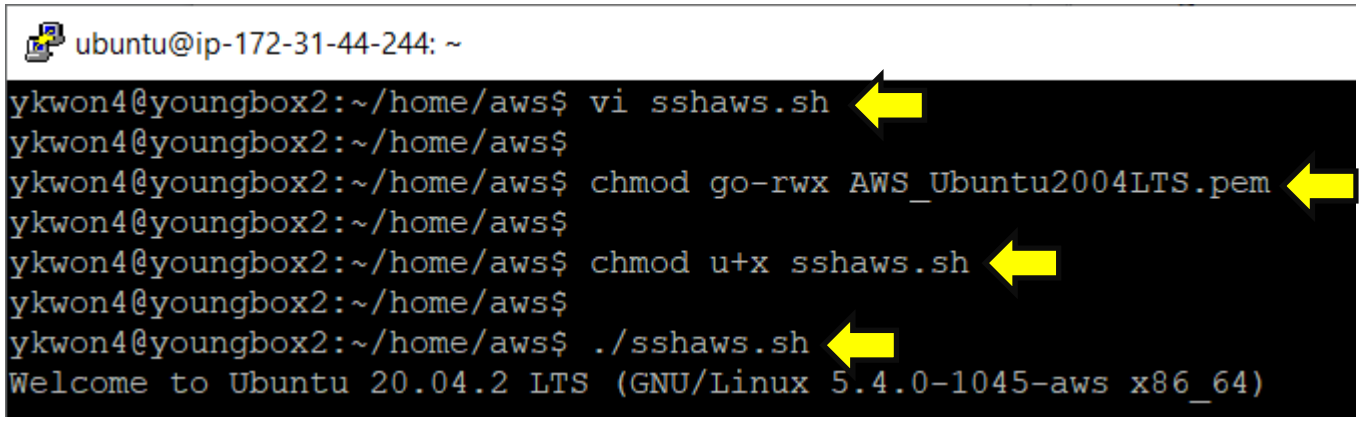
- Create a .sh file with the following contents
  - It will run ssh
  - E.g. vi sshaws.sh

```
#!/bin/bash
ssh -i "AWS_Ubuntu2004LTS.pem" ubuntu@ec2-13-125-217-172.ap-northeast-2.compute.amazonaws.com
```

from AWS SSH client tab

Connect to the VM (Linux, Mac)

- Remove rwx permissions from the .pem file
  - chmod go-rwx AWS_Ubuntu2004LTS.pem
- Add x permission to the .sh file
  - chmod u+x sshaws.sh
- Run the .sh file
  - ./sshaws.sh



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Upload/Download Files (Linux, Mac)

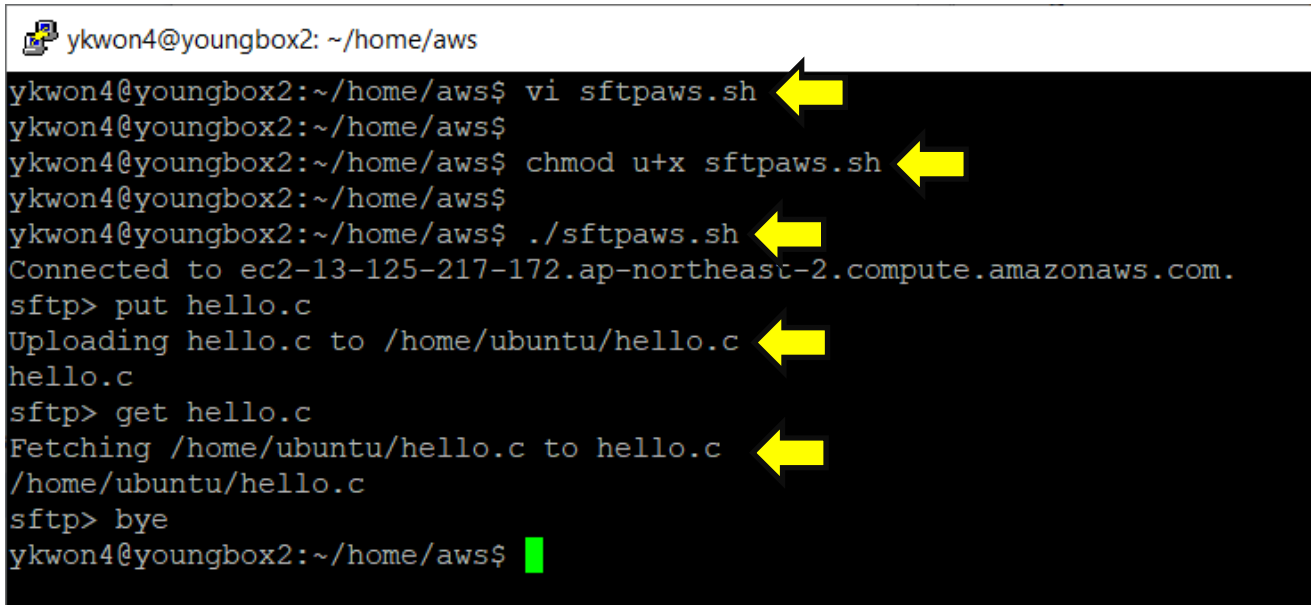
- Create a .sh file with the following contents
  - It will run sftp
  - E.g. vi sftpaws.sh

```
#!/bin/bash
sftp -i "AWS_Ubuntu2004LTS.pem" ubuntu@ec2-13-125-217-172.ap-northeast-2.compute.amazonaws.com
```

from AWS SSH client tab
* the command is sftp

Upload/Download Files (Linux, Mac)

- Add x permission to the .sh file
  - chmod u+x sftpaws.sh
- Run the .sh file
  - ./sftpaws.sh
  - E.g. to upload hello.c: put hello.c
  - E.g. to download hello.c: get hello.c

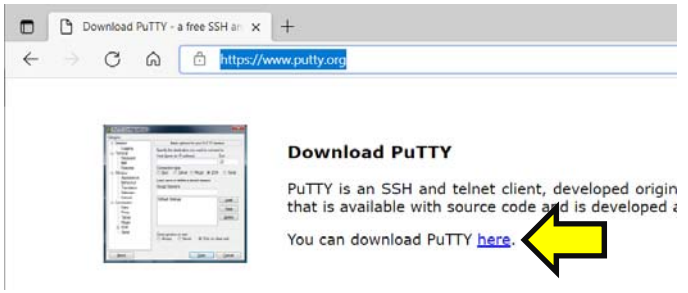


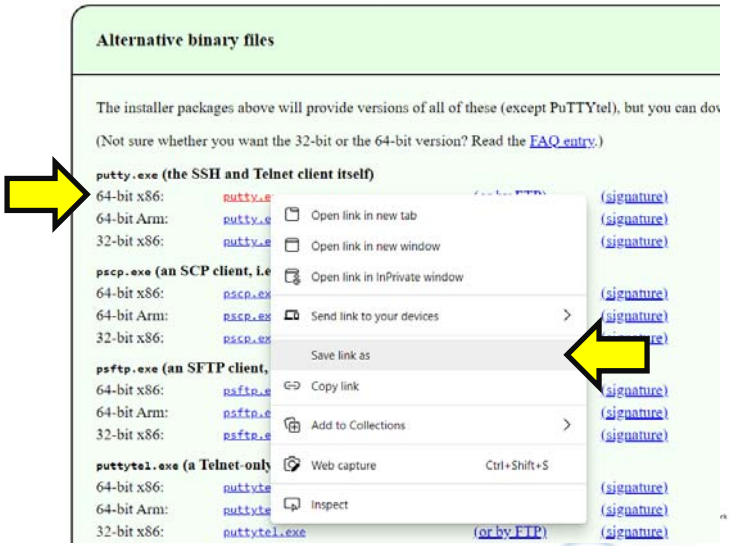
Connect to the VM (Windows)

- Download putty.exe, psftp.exe, puttygen.exe
- Convert a private key using puttygen.exe
- Create .cmd files to connect to the VM

Download putty.exe…

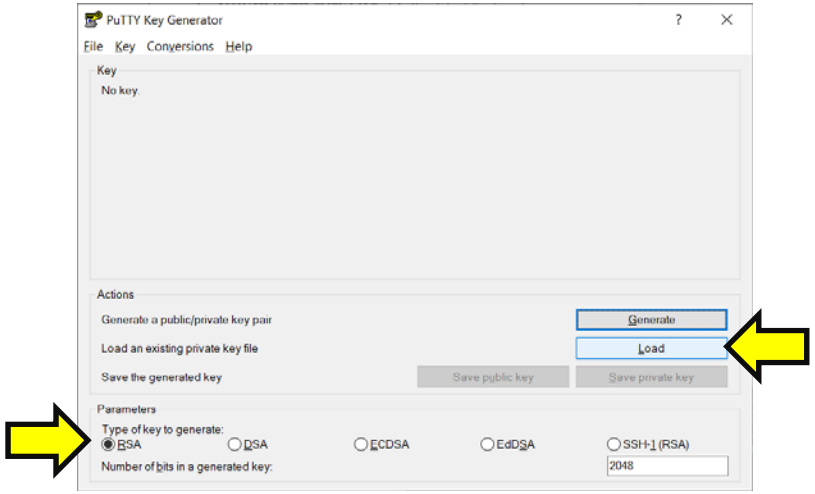
- Goto
  - https://www.putty.org
  - Download putty.exe
    - Write click on putty.exe
    - Save link as…
  - Download puttygen.exe
  - Download psftp.exe
- Copy these .exe and the .pem files to a same folder
  - E.g. in Desktop\Tools\



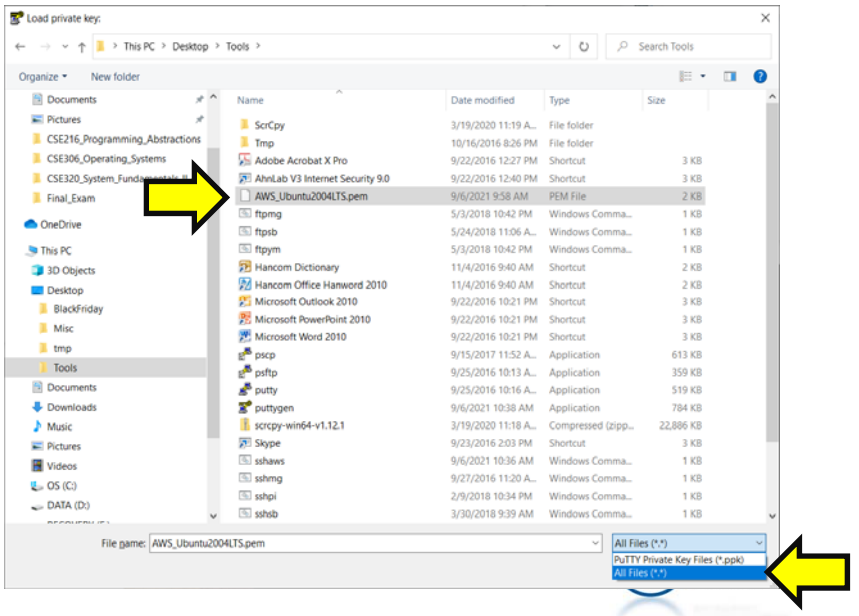


Convert your Private Key (.pem file)

- Run puttygen.exe
- Select RSA ⇒ Load

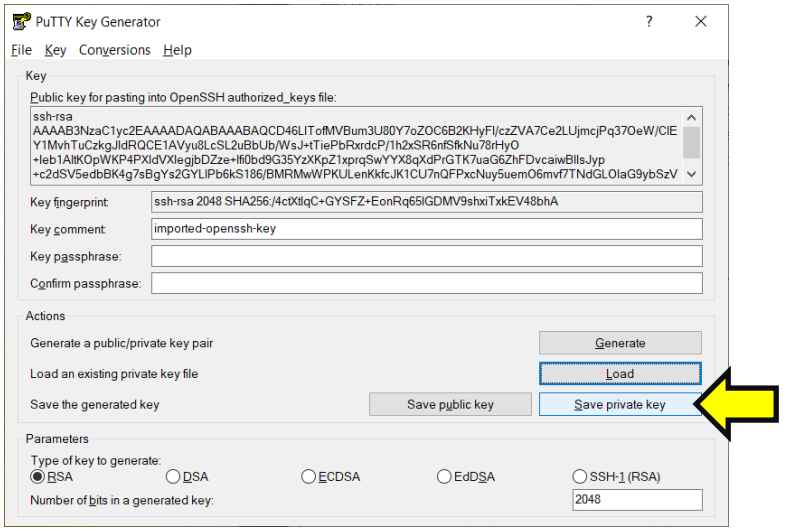


- Choose “All files (*.*)
- Select the .pem file
  - . in 20.04LTS is dropped

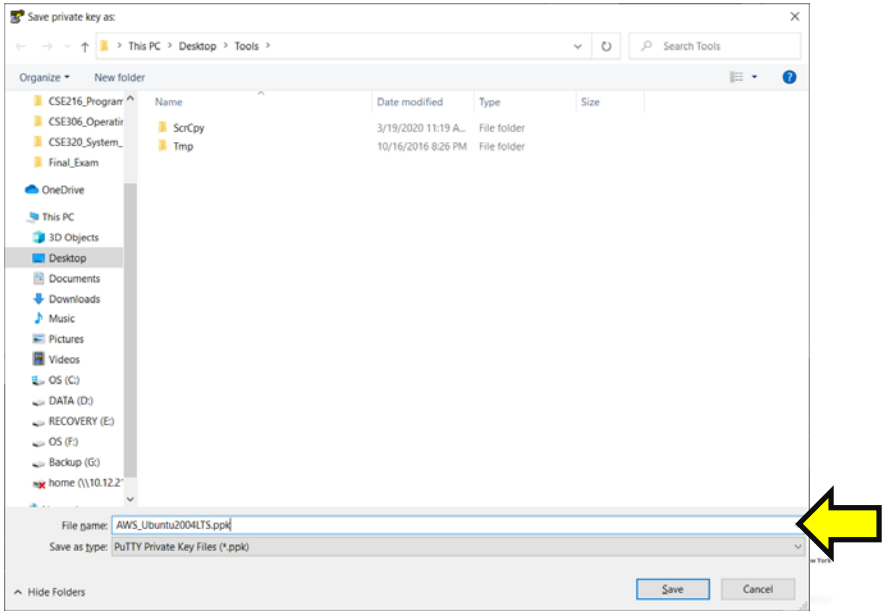


Convert your Private Key (.pem file)

- Save private key

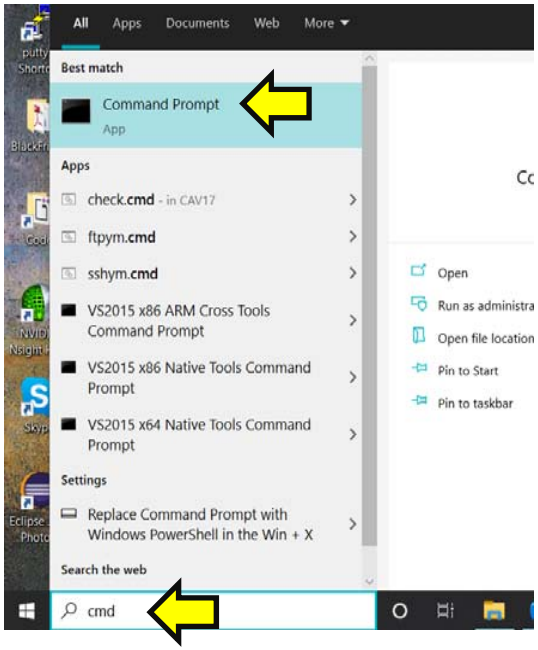


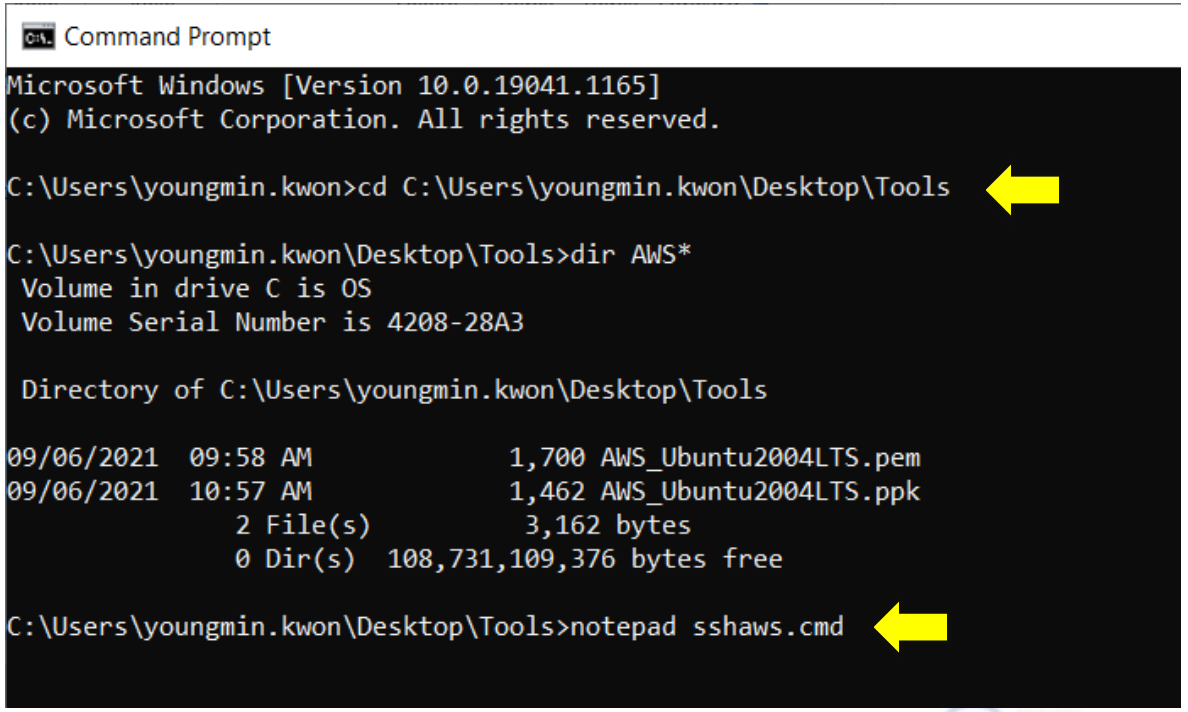
- Save it as a .ppk file



Connect to the VM

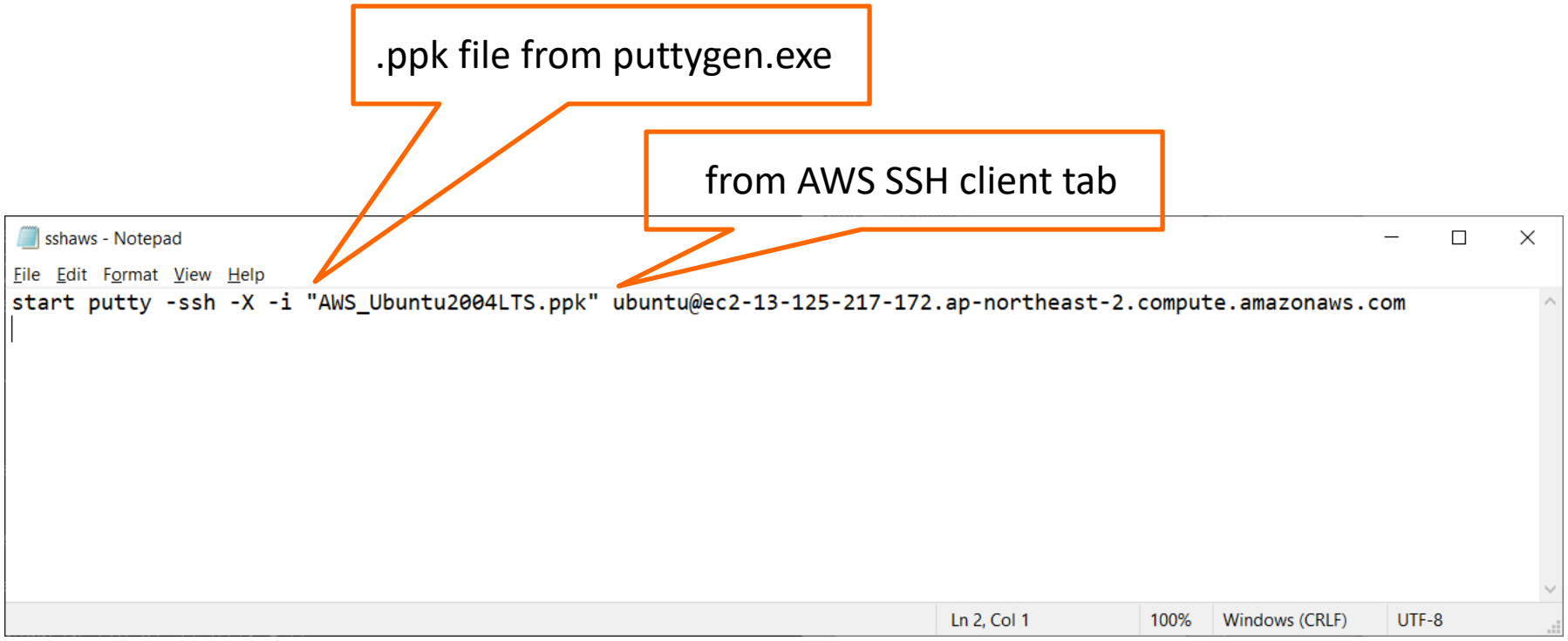
- Create a .cmd file (e.g. sshaws.cmd)
  - cd to the folder where .pem, .ppk file, .exe files are
  - notepad sshaws.cmd





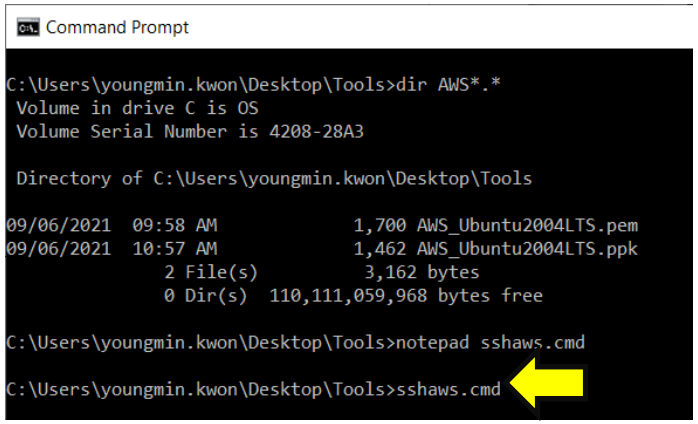
Connect to the VM

- In the .cmd file enter the command as in the figure

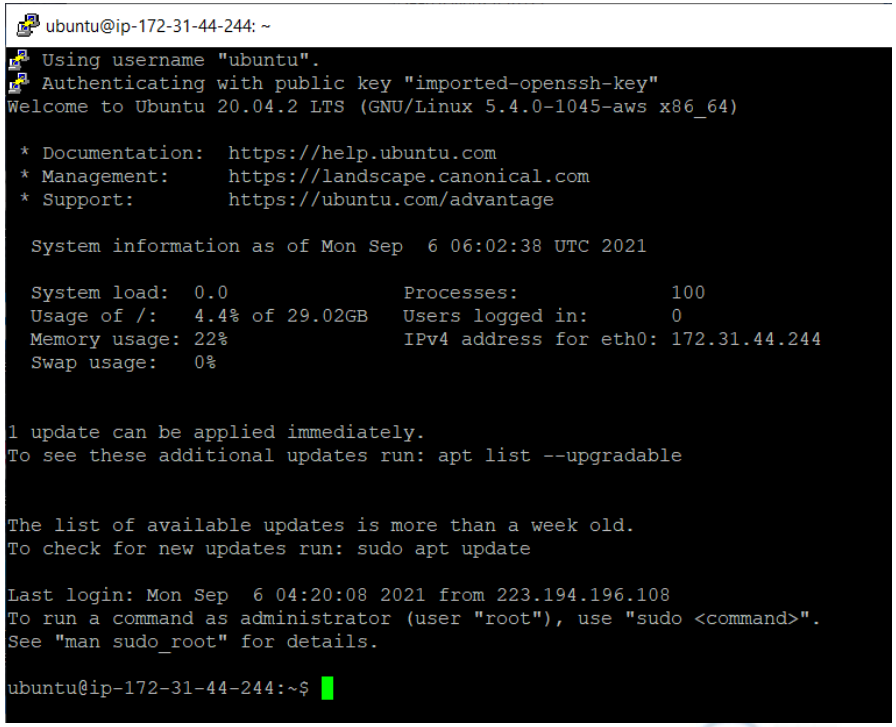


Connect to the VM

- Run the command
  - E.g. sshaws.cmd

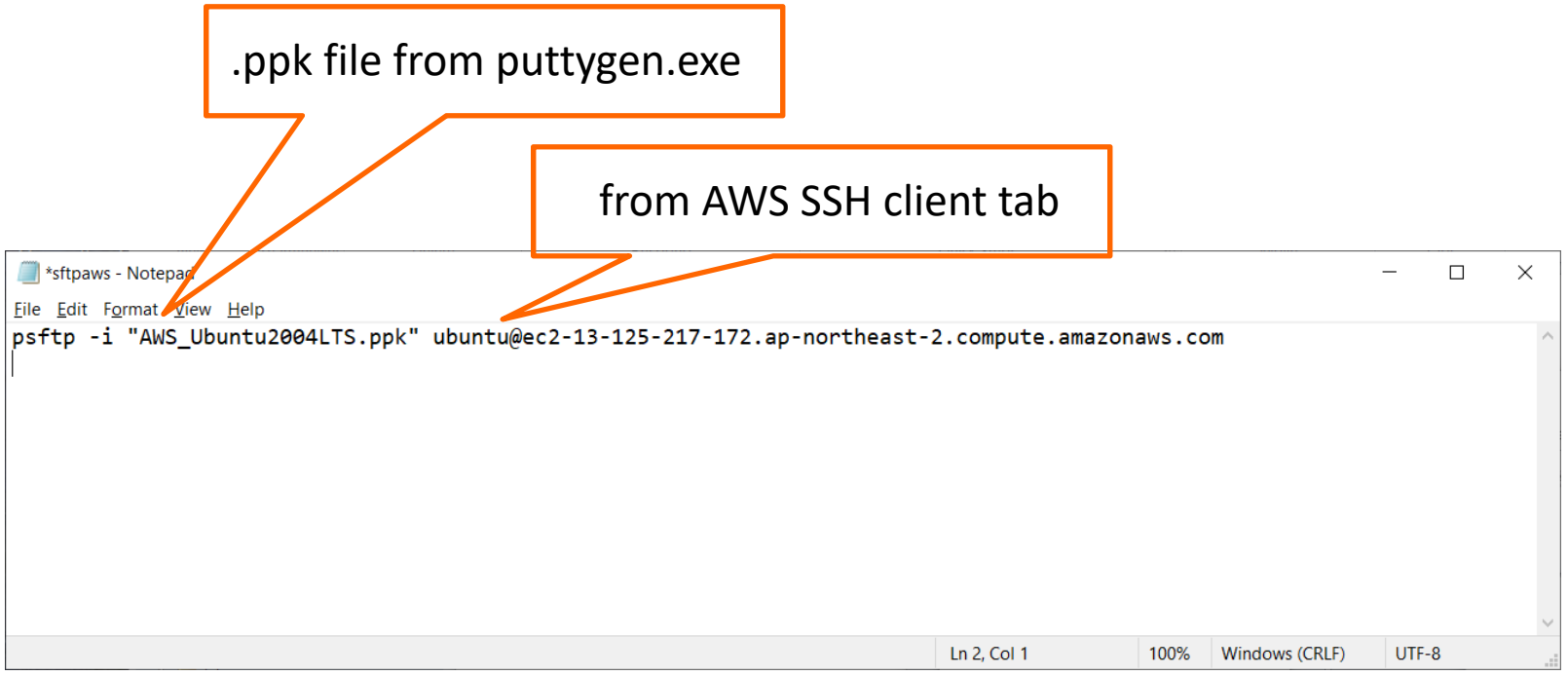


- You are connected to the VM on AWS



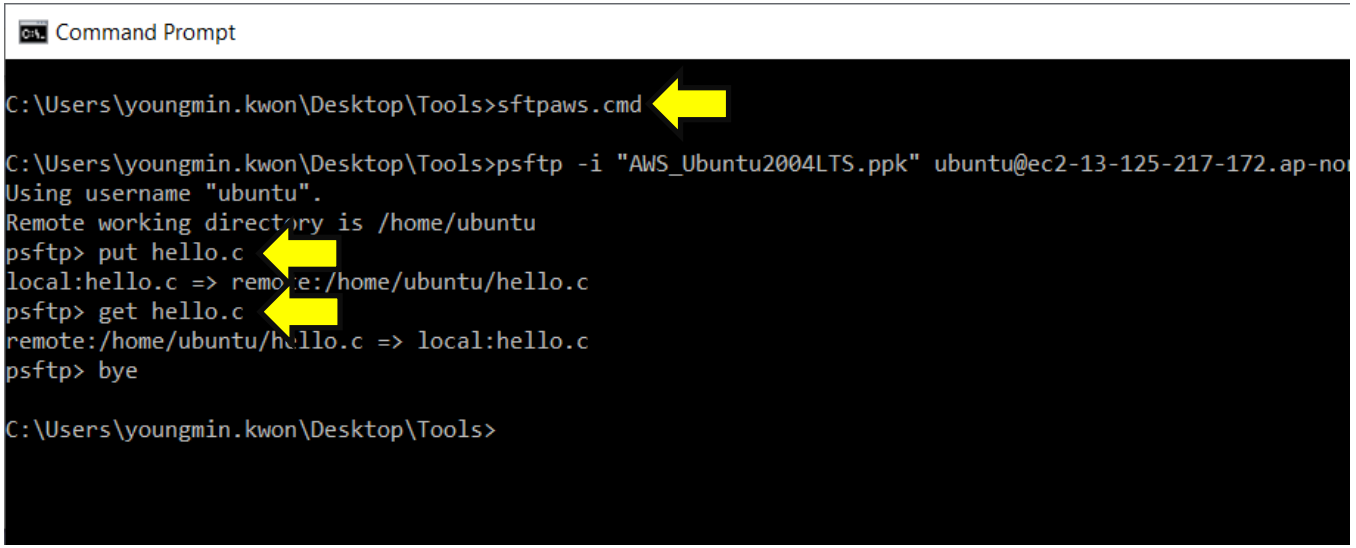
Upload/Download Files

- Make a .cmd file (e.g. sftpaws.cmd) and enter the command as in the figure



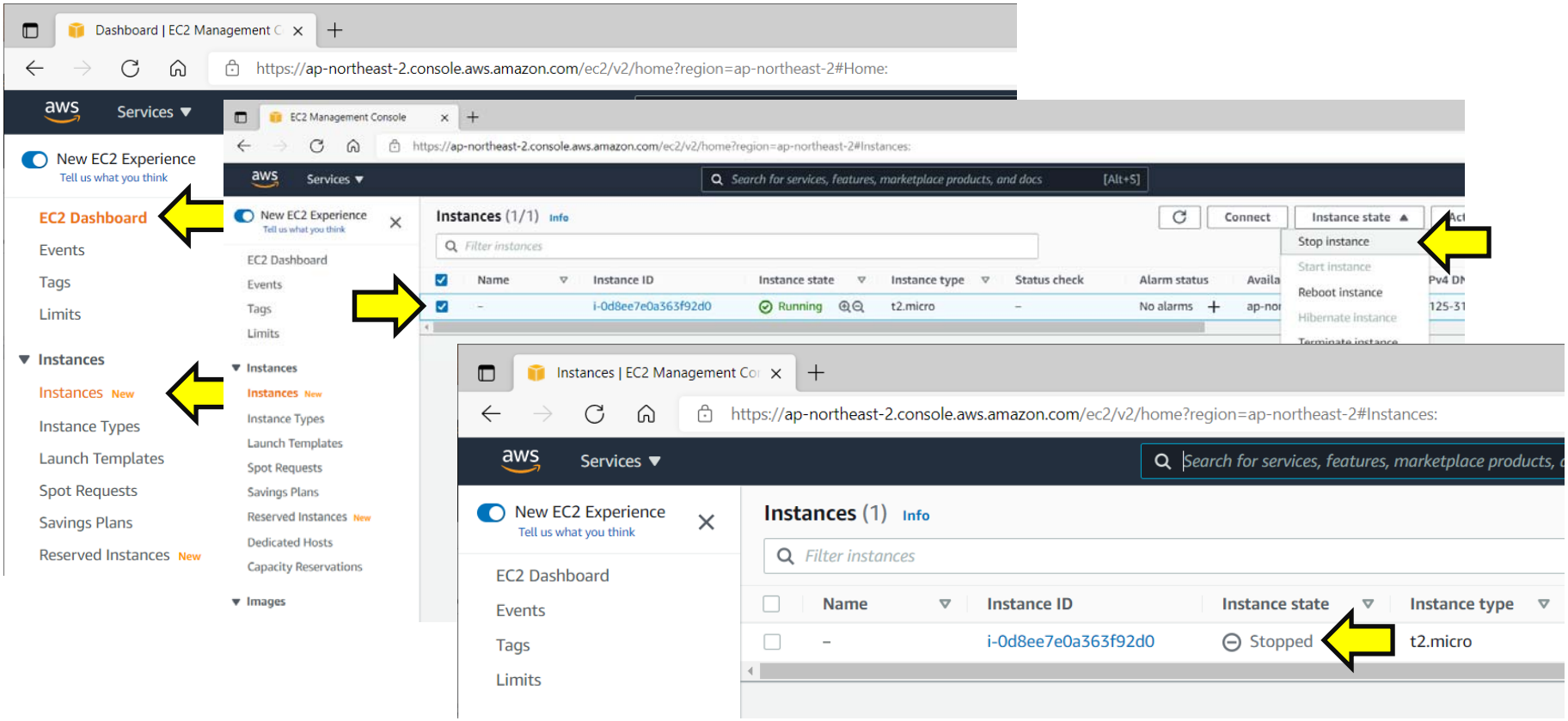
Upload/Download Files

- Run the command (e.g. sftpaws.cmd)
- You can upload/download files
  - E.g. to upload hello.c: put hello.c
  - E.g. to download hello.c: get hello.c



To Stop the VM

- After use, stop the VM
  - If you use multiple VMs, after the free limit (750 hr/mo) AWS will charge you
  - EC2 Dashboard ⇒ Instances ⇒ Select the VM ⇒ Instance State ⇒ Stop Instance (don't touch Terminate instance)



To Retart the VM

- EC2 Dashboard ⇒ Instances ⇒ Select the VM ⇒ Instance State ⇒ Start instance
- The SSH client will be changed after restart