

Quantonomy Trading, LLC

AlphaHub, LLC

How to Setup a Free AWS server to run the Trader

You don't need a server to run the Trader App but it is the suggested method. You can easily rent for free and setup a server on AWS (or similar services) and run the Trader without using resources on your computer and without worrying about loss of power or other problems affecting your local computer.

Creating and Launching an AWS instance

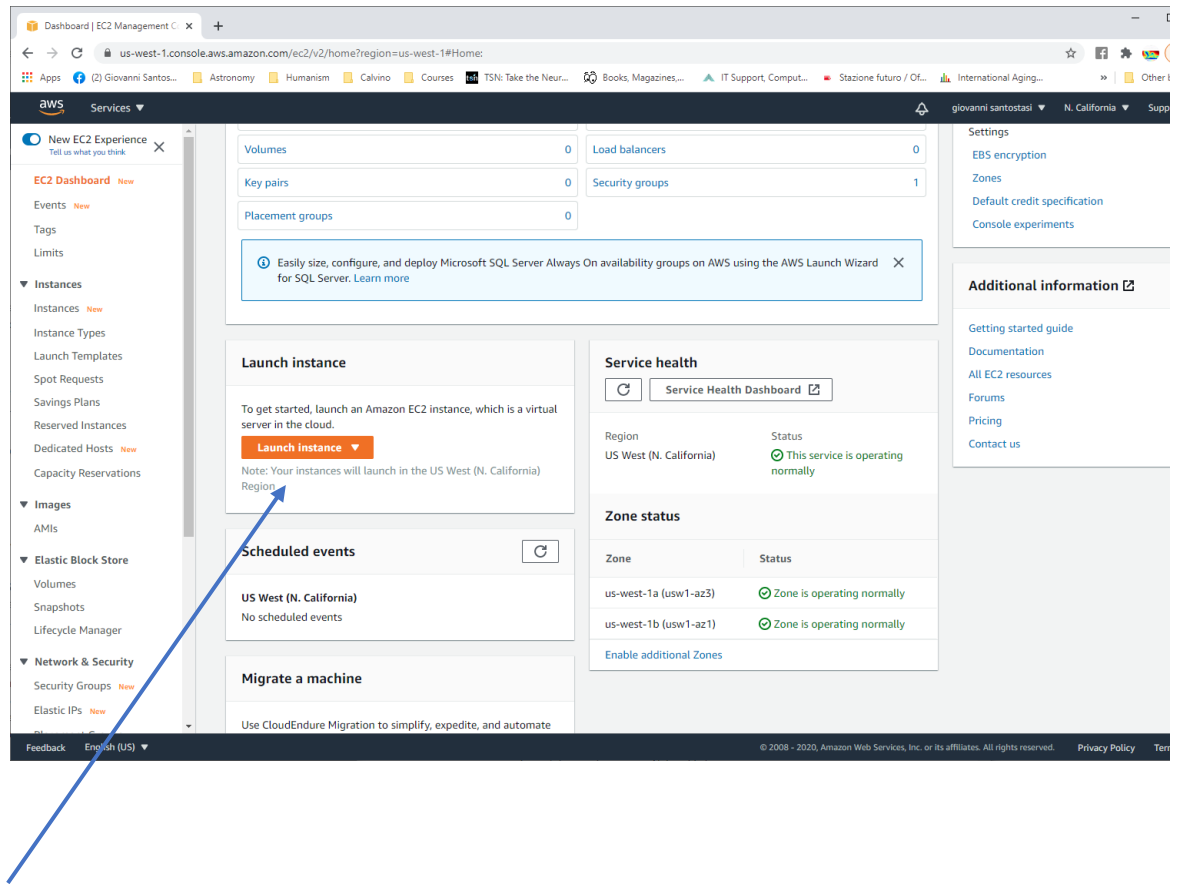
750 cumulative hours of usage and 30 GB-months of storage per month are covered under the AWS Free Tier. To launch a Windows EC2 instance that is covered by the AWS Free Tier, follow these steps:

1. Sign in to the Amazon EC2 console.

<https://console.aws.amazon.com/ec2/>

if you have already an account select "root user" if you don't have an account with AWS then create an account.

2. Once you are logged in in the AWS account, choose **Launch Instance**.



3. Limit the AMIs in the list by selecting the **Free Tier** only box. Then, next to an eligible AMI, choose Select.

Launch instance wizard | EC2 Me

us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#LaunchInstanceWizard:

Services

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our us can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

Quick Start

- My AMIs
- AWS Marketplace
- Community AMIs
- ☐ Free tier only ⓘ

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0e4035ae3f70c400f (64-bit x86) / ami-026860fee24856fc0 (64-bit Arm)
Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc the latest software packages through extras.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-088c153f74339f34c
The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The Docker, PHP, MySQL, PostgreSQL, and other packages.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-066df92ac6f03efca (64-bit x86) / ami-0ac0418043bb60706 (64-bit Arm)
Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

SUSE Linux Enterprise Server 15 SP2 (HVM), SSD Volume Type - ami-0ac3dbf3917611d92 (64-bit x86) / ami-0d4aee63194c53452
SUSE Linux Enterprise Server 15 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web modules enabled.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

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4. Select an instance size that is labeled **"Free Tier eligible."** Then, choose Next: **Configure Instance Details.**

Launch instance wizard | EC2 M...

us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#LaunchInstanceWizard:

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	t3a.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3a.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3a.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3a.medium	2	4	EBS only	Yes	Up to 5 Gigabit	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

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- On the Configure **Instance Details** page, be sure that **Instance Tenancy** is set to Shared, and that Request Spot instances is not selected. All other settings do not affect whether the instance's usage is covered by the AWS Free Tier, and you can configure them as you like. When you're ready to continue, choose Next: Add Storage.

Launch instance wizard | EC2 M5

us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#LaunchInstanceWizard:

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 7: Review Instance Launch

This security group has no rules

Instance Details [Edit instance details](#)

Number of instances: 1
 Purchasing option: On demand

Network: vpc-6f8a810d
 Subnet: No preference (default subnet in any Availability Zone)
 EBS-optimized: No
 Monitoring: No
 Termination protection: No
 Shutdown behavior: Stop
 Stop - Hibernate behavior: Disabled
 Capacity Reservation: None
 IAM role: None
 Domain join directory: None
 Tenancy: Shared - Run a shared hardware instance
 Credit specification: Use default
 Host ID: Off
 Host resource group name: Off
 Affinity: Off
 Metadata accessible: Enabled
 Metadata version: V1 and V2 (token optional)
 Metadata token response hop limit: User data
 Assign Public IP: Use subnet setting (Enable)
 Assign IPv6 IP: Use subnet setting (Enable)
 Assign Carrier IP: Use subnet setting (Enable)

Storage [Edit storage](#)

Tags [Edit tags](#)

[Cancel](#) [Previous](#) [Launch](#)

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The **Instance Tenancy** should already be set to Shared but check just in case.

Launch instance wizard | EC2 M5

us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#LaunchInstanceWizard:

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances: 1 [Launch into Auto Scaling Group](#)

Purchasing option: ☐ Request Spot instances

Network: vpc-6f8a810d (default) [Create new VPC](#)

Subnet: No preference (default subnet in any Availability Zone) [Create new subnet](#)

Auto-assign Public IP: Use subnet setting (Enable)

Placement group: ☐ Add instance to placement group

Capacity Reservation: Open

Domain join directory: No directory [Create new directory](#)

IAM role: None [Create new IAM role](#)

Shutdown behavior: Stop

Stop - Hibernate behavior: ☐ Enable hibernation as an additional stop behavior

Enable termination protection: ☐ Protect against accidental termination

Monitoring: ☐ Enable CloudWatch detailed monitoring
[Additional charges apply.](#)

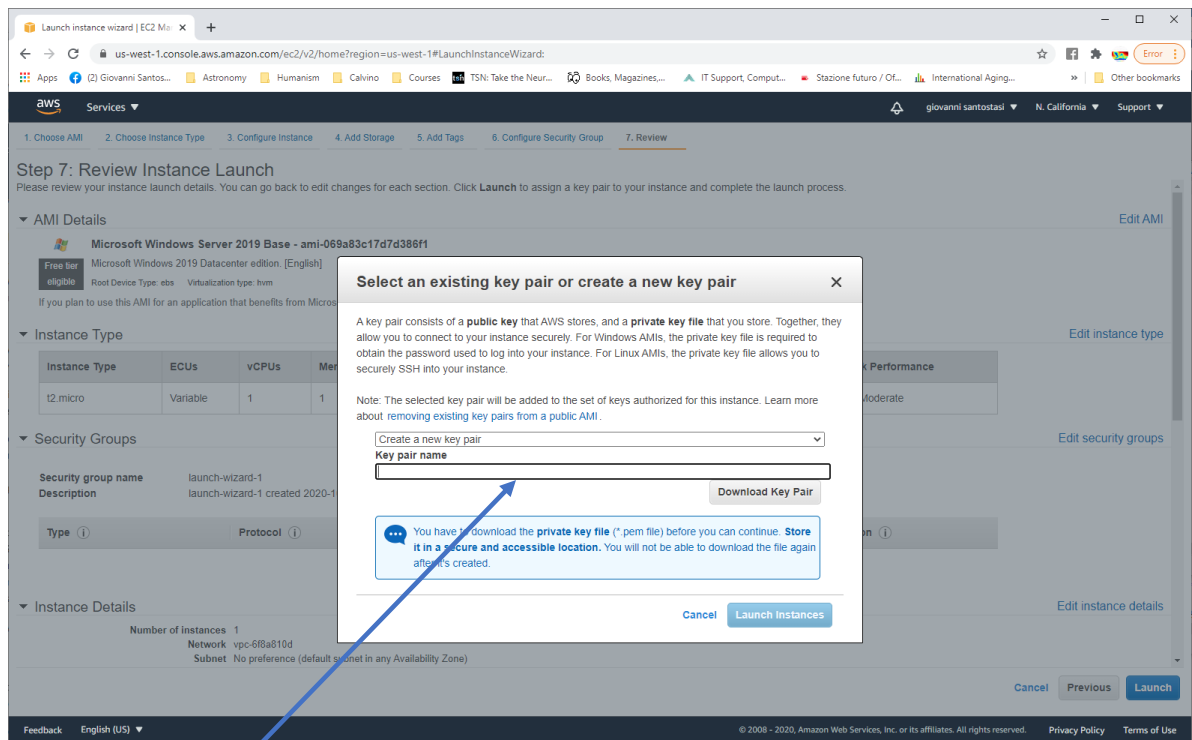
Tenancy: Shared - Run a shared hardware instance
[Additional charges will apply for dedicated tenancy.](#)

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Storage](#)

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Also the **Purchasing Option should be not selecting** as Default but just double check just in case.

6. You can skip the Add Storage step or add more storage (it will add some cost, so go ahead and get free 30 G if you want a free instance). 30 G will be more than enough if you want to run the Trader App that is just a little bit more than 1 G (including MatLab RunTime).
7. Optionally, add a tag to your instance. Then, choose **Next: Configure Security Group**.
8. Configure a security group that allows only trusted traffic in and out. Click on **Edit Security Group**. A pop-out windows will open. Choose "Create a New Key Pair".

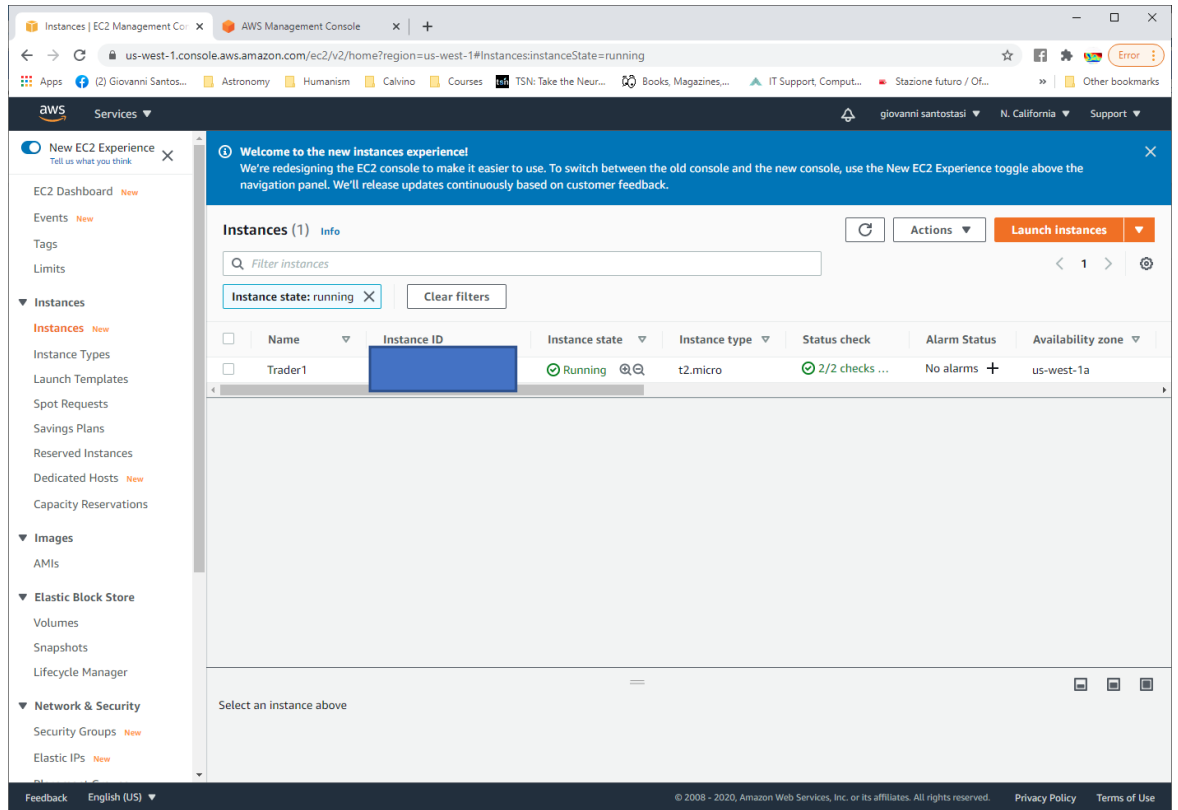


Choose a name for your keys like "TraderAlpha" or whatever name you like.

Then press Download Key Pair.

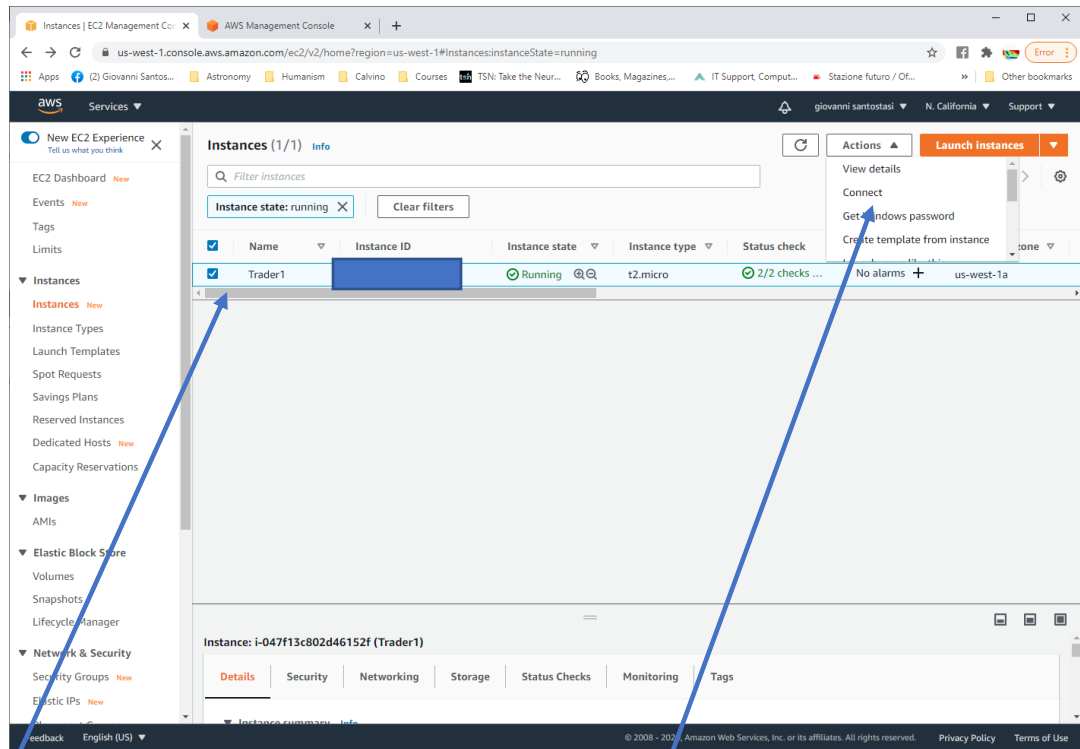
Look in the download folder and copy the key file, create a folder (named "TraderKey" for example, but it can be any name, it is just a safe place where to store your key). This key will be used to remote access your server from your computer.

9. Finally launch your instance. Give some time (up to 10-15 minutes) for the instance to be setup.
10. Go back to the EC2 Dashboard and check if your instance is ready.



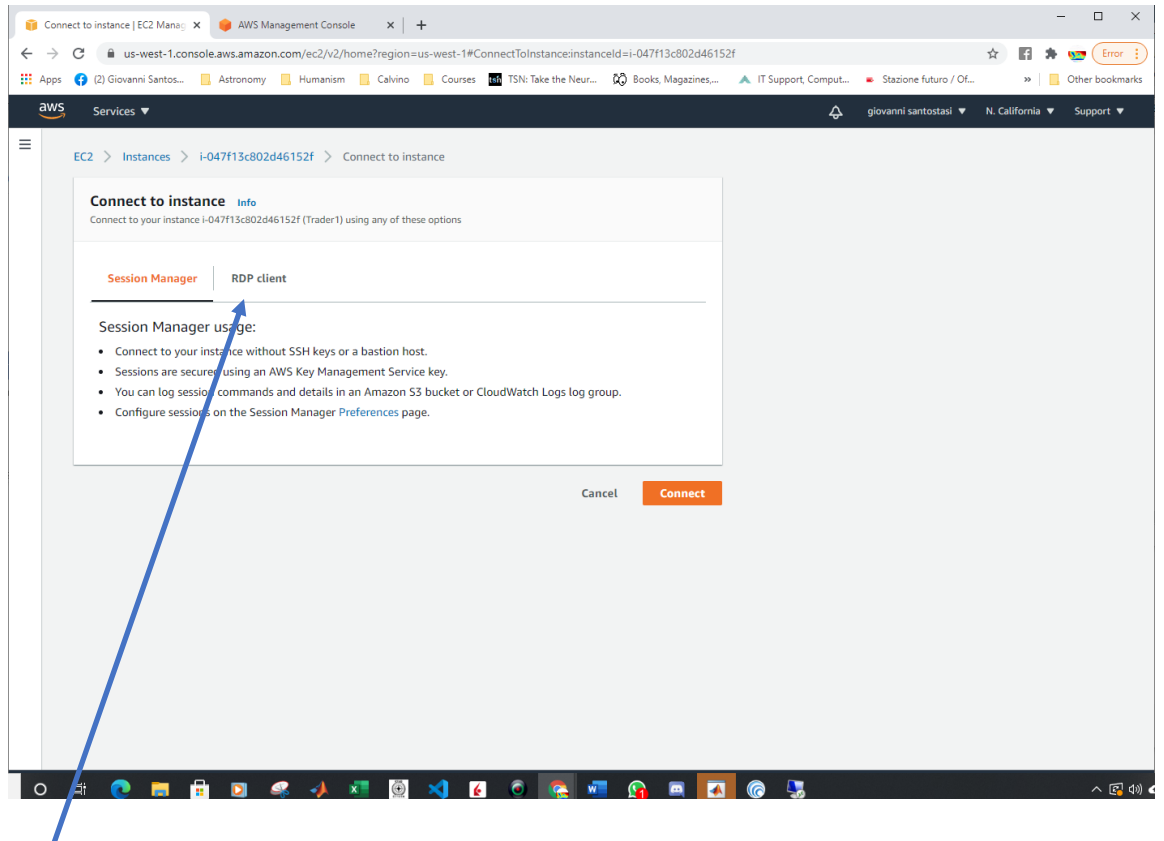
When it is says running go to next step: **Remote Connection**.

11. Remote Connection:

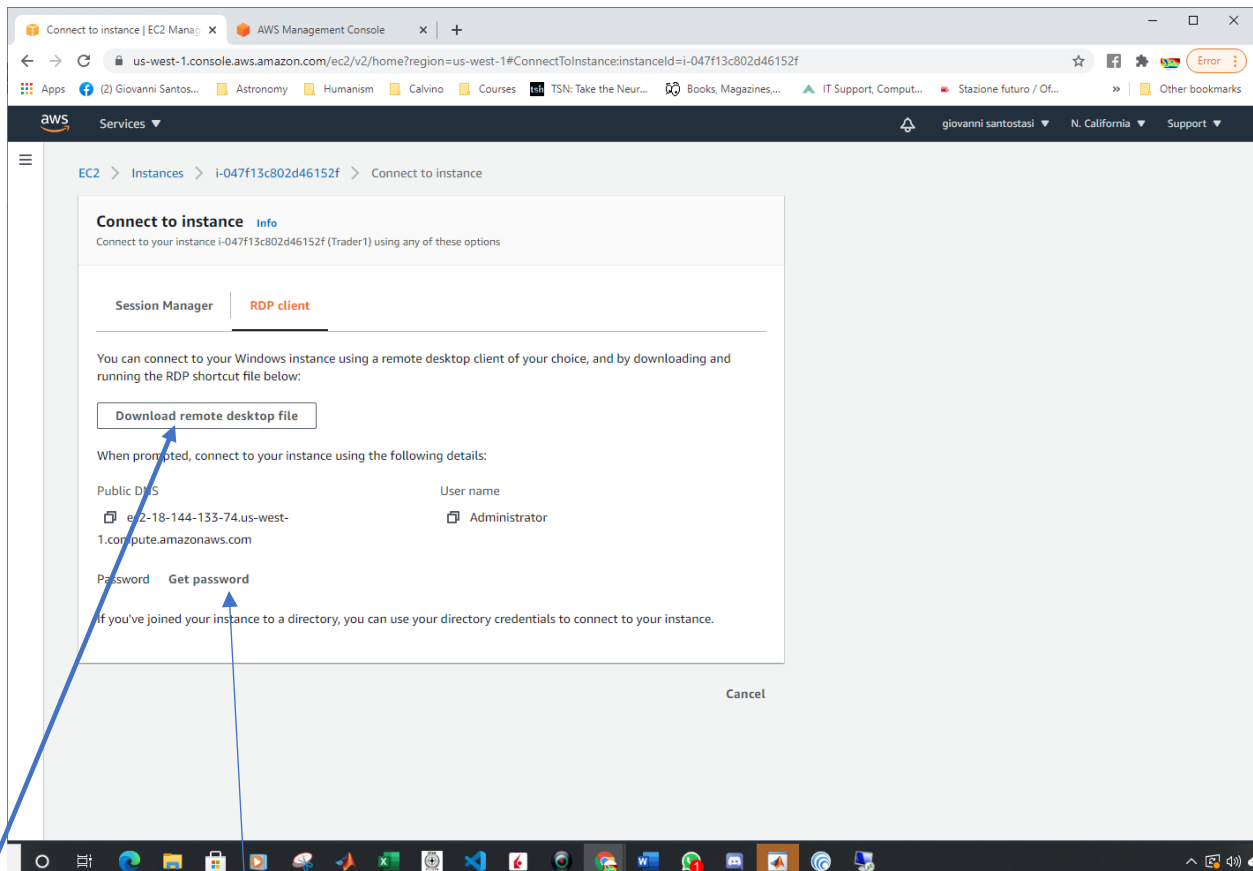


Select the instance and the under the **Actions** tab select **Connect**.

12. Choose RDP client.

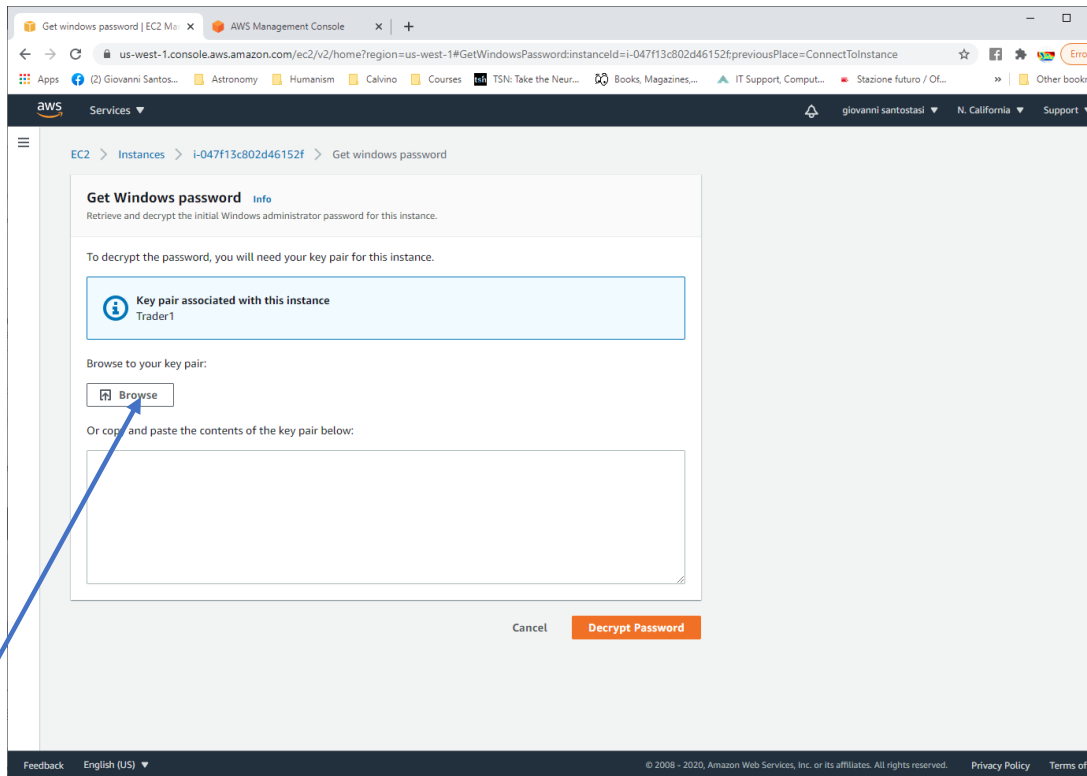


13. Select **Download remote desktop file.**



Click also on **Get password**.

A Dialogue box will appear:



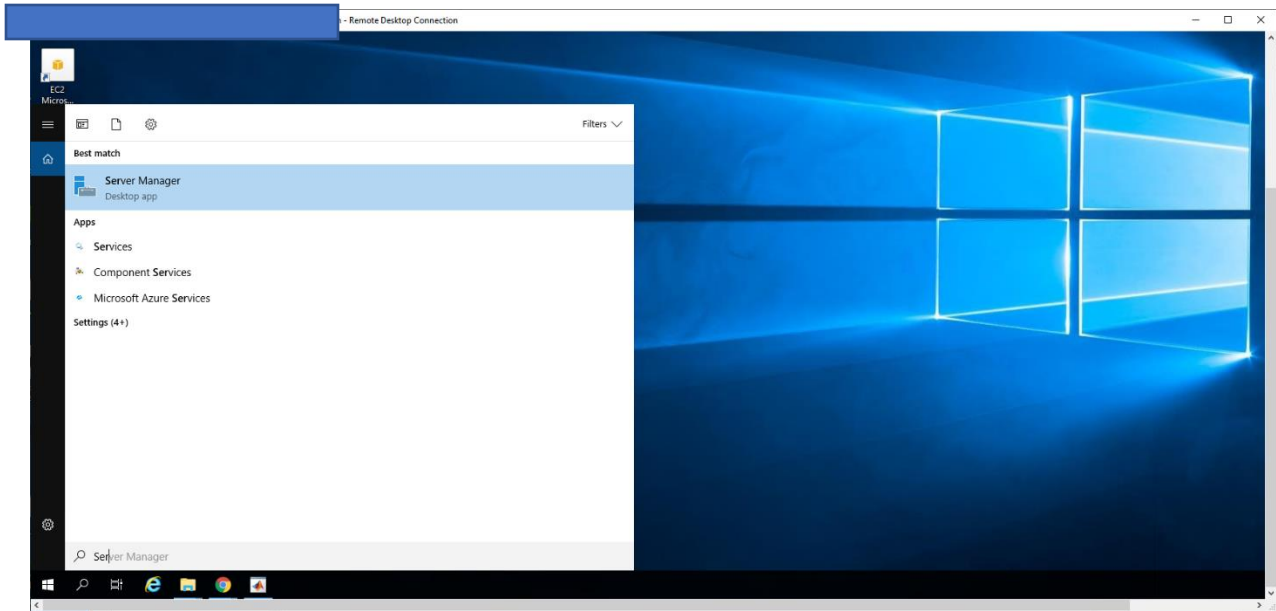
Click Browse and navigate to the folder where you stored the key and select the key file. A password will appear in the box, copy and save the password.

14. Find the remote desktop file in your desktop, copy it and save it somewhere safe in a folder. Click on the file.
The file dialogue will ask for a password. Use the password that you just copied.
15. You should be able to see a window opening that shows your Windows Server.

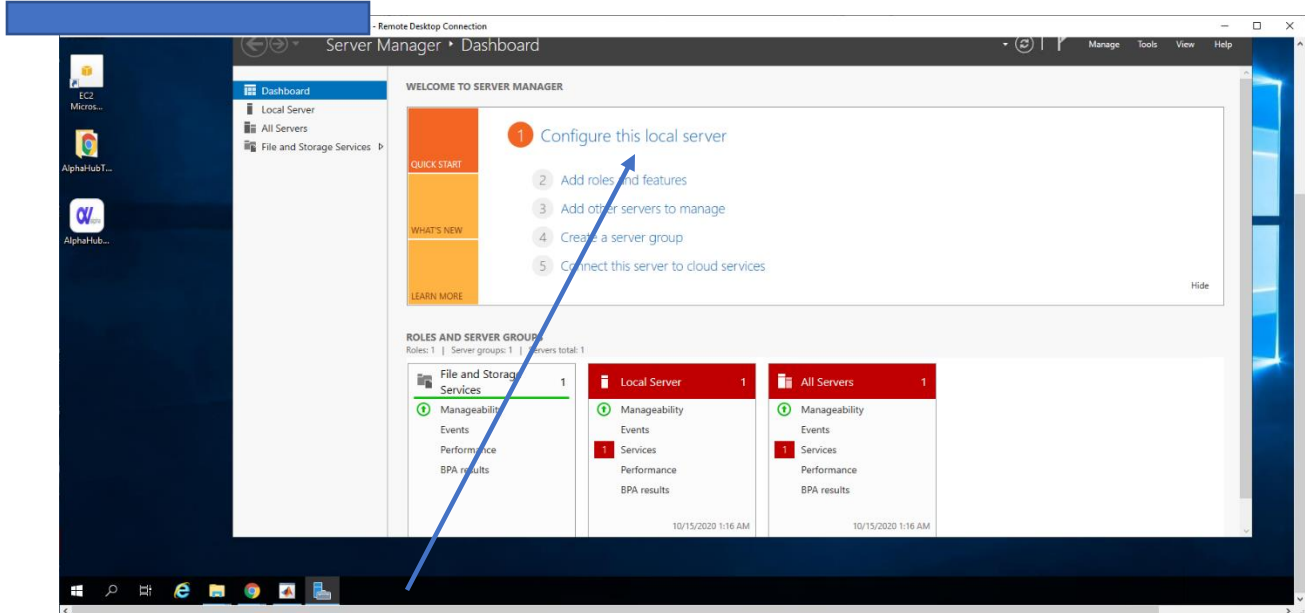
Configuring the Server

We need to some work to configure the server so we can run the Trader app

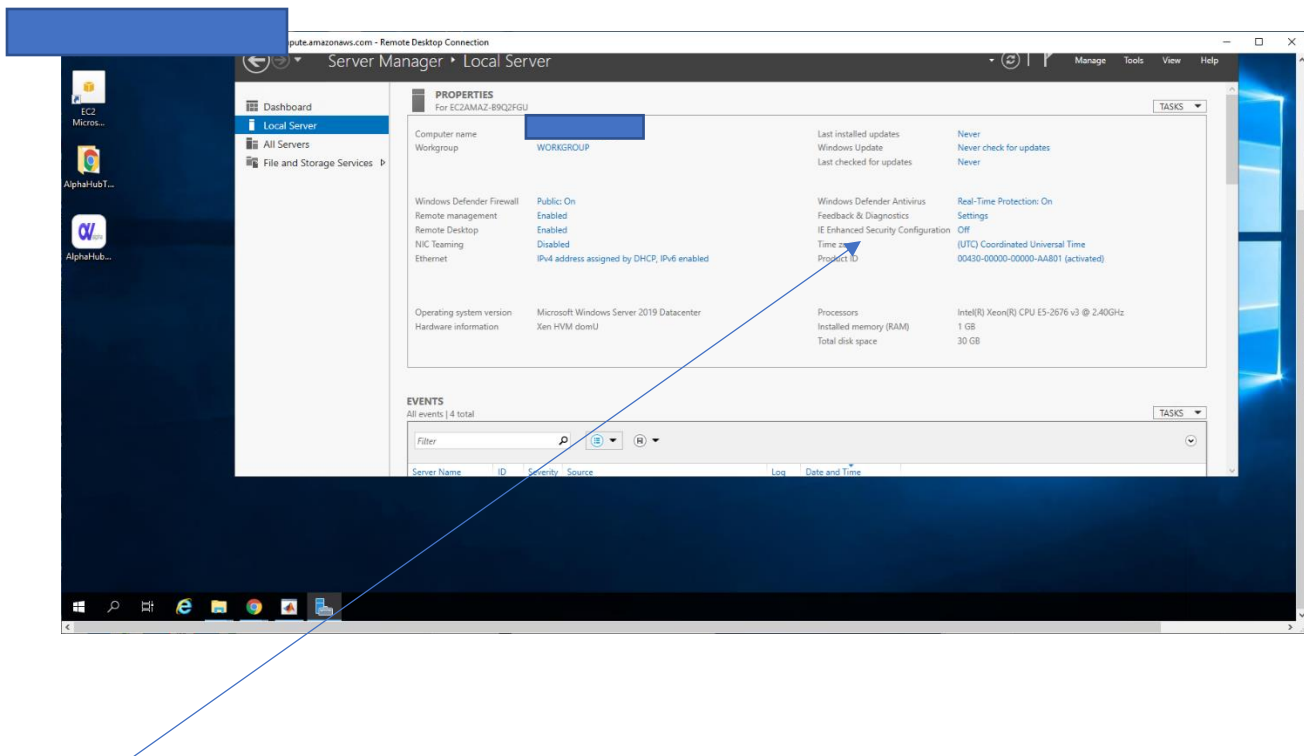
- 1) On the search window type Server Manager.



2) Select **Local Server** and then Configure this local server (Quick Start).



3)



Once the server is configured set IE Enhanced Security Configuration Off. This is important because we will use Internet Explorer (IE) as our connection to the world (for now, later you can download your favorite browser, like Chrome for example).

Press ok to confirm your changes. Close the Server Manager.

- 4) Now you can use IE. Open the browser and download your favorite browser or continue to use IE if you like.
- 5) Go to the github repository where you can find the Trader app, download it and install MatLab RunTime and then you can launch the Trader app.

<https://github.com/gasantostasi/AlphaHubTrader>

- 6) Follow the instructions in the other documentation on the github repository on how to setup the trader.
- 7) 7) Optional: You can download other Remote Desktop software that are easier to use like RemotePC.

www.remotepc.com/

Follow instructions on their website on how to set it up and use it. Otherwise, to reconnect again (when you close your connection to the server) you can continue to use Remote Desktop connection using the downloaded link as explained in steps 13. to 15. In previous section.