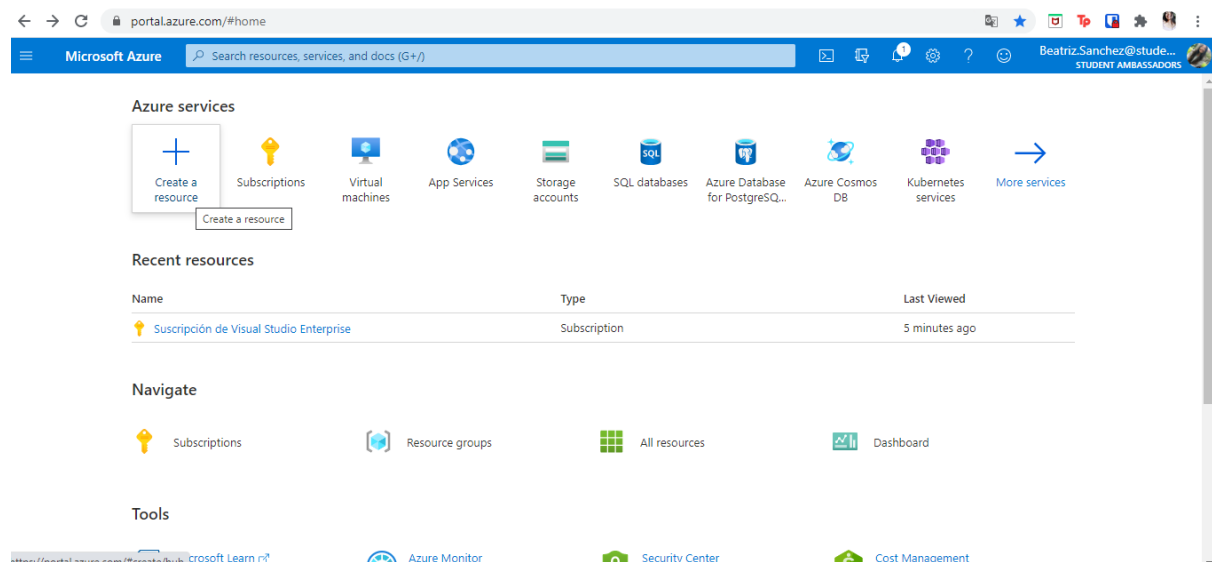


CREACIÓN DE AZURE NOTEBOOK CON MACHINE LEARNING STUDIO

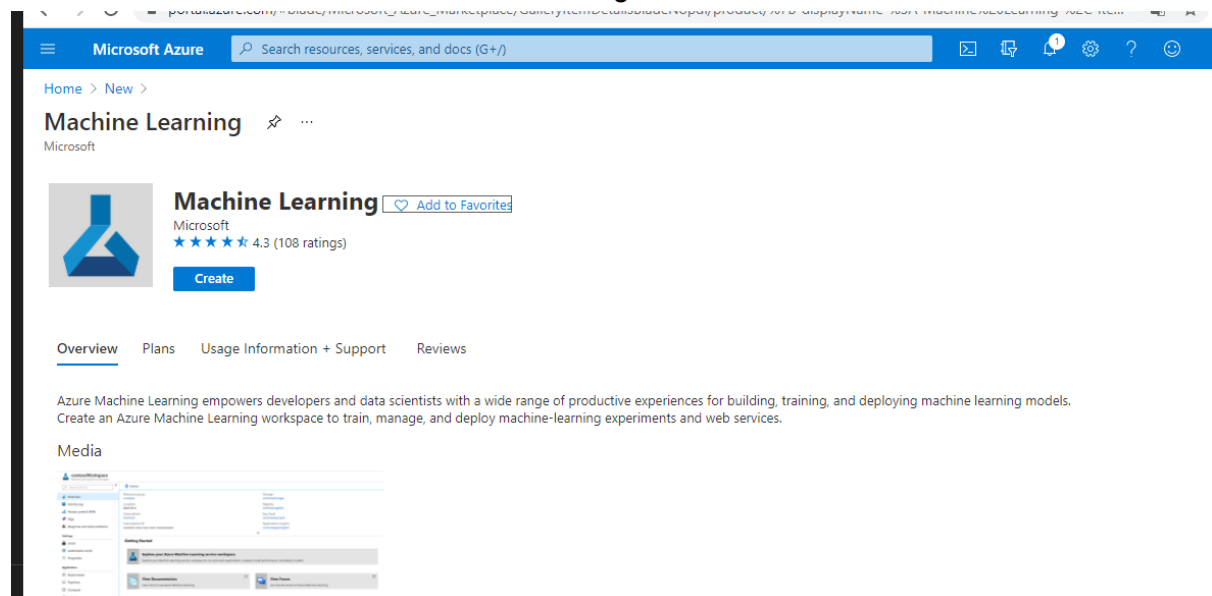
1.-Necesitas una cuenta de Azure (Si cuentas con un correo institucional puedes obtener hasta 200 dólares por año para realizar tus pruebas)

1.- Ve al panel principal de Microsoft Azure

<https://portal.azure.com/#home>



2.- Crea un nuevo recurso de Machine Learning



3.-Crea tu recurso, asigna un nombre a tu espacio de trabajo y en caso de no tener un grupo de recursos también crealo:

Basics Networking Advanced Tags Review + create

Project details

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

Subscription * ⓘ Suscripción de Visual Studio Enterprise ▼

Resource group * ⓘ (New) NotebooksAzure ▼

[Create new](#)

Workspace details

Specify the name and region for the workspace.

Workspace name * ⓘ TallerDS ✓

Specify the name and region for the workspace.

Workspace name * ⓘ TallerDS ✓

Region * ⓘ Central US ▼

Storage account * ⓘ (new) tallerds3772516293 ▼

[Create new](#)

Key vault * ⓘ (new) tallerds9086238892 ▼

[Create new](#)

Application insights * ⓘ (new) tallerds8599794588 ▼

[Create new](#)

Container registry * ⓘ None ▼

[Create new](#)

[Home](#) > [New](#) > [Machine Learning](#) >

Machine learning

Create a machine learning workspace

✓ Validation passed

Basics Networking Advanced Tags **Review + create**

Basics

| | |
|----------------------|---|
| Subscription | Suscripción de Visual Studio Enterprise |
| Resource group | (New) NotebooksAzure |
| Region | Central US |
| Workspace name | TallerDS |
| Storage account | (new) tallerds3772516293 |
| Key vault | (new) tallerds9086238892 |
| Application insights | (new) tallerds8599794588 |
| Container registry | None |

Next steps

[Create](#) < Previous Next > [Download a template for automation](#)

4.- El recurso se creará y te mostrará algo cómo lo siguiente:

The screenshot shows the 'Microsoft.MachineLearningServices | Overview' page. The left sidebar contains links for Overview, Inputs, Outputs, and Template. The main content area displays a green checkmark and the message 'Your deployment is complete'. Below this, it lists deployment details: Deployment name: Microsoft.MachineLearningServices, Subscription: Suscripción de Visual Studio Enterprise, and Resource group: NotebooksAzure. It also shows the start time (4/5/2021, 2:21:22 PM) and correlation ID. A 'Go to resource' button is visible. On the right, there are links to the Security Center, Free Microsoft tutorials, and Work with an expert.

5.- Da click en cualquiera de las dos siguientes opciones para ir al estudio de Machine Learning

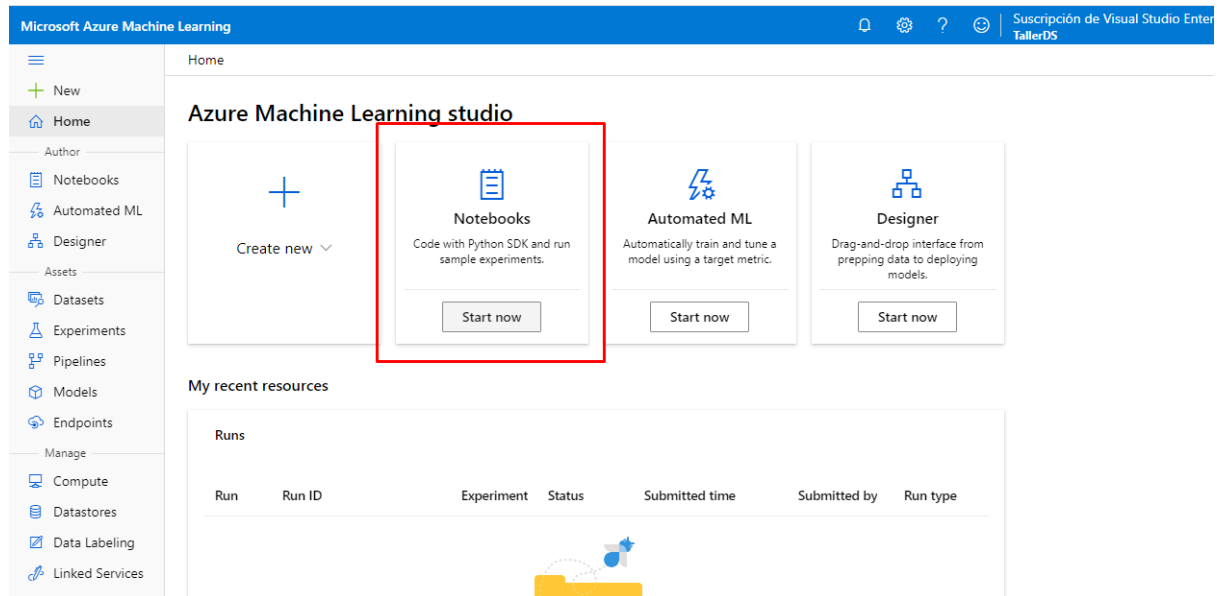
The screenshot shows the 'TallerDS | Machine learning' page. The left sidebar contains links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Events, Settings, Private endpoint connections, Properties, Locks, Monitoring, and Alerts. The main content area displays the 'Essentials' section with a table of resource details. A red arrow points to the 'Studio web URL' link. Below the table, there is a 'Launch studio' button, also indicated by a red arrow.

| Essentials | |
|----------------------|---|
| Resource group | NotebooksAzure |
| Location | Central US |
| Subscription | Suscripción de Visual Studio Enterprise |
| Subscription ID | 2b8a00d6-a36a-4cc5-9e18-9ca04249086c |
| Studio web URL | https://ml.azure.com/?tid=84c31ca0-ac3b-4eae-ad11-519d... |
| Storage | tallerds3772516293 |
| Registry | ... |
| Key Vault | tallerds9086238892 |
| Application Insights | tallerds8599794588 |

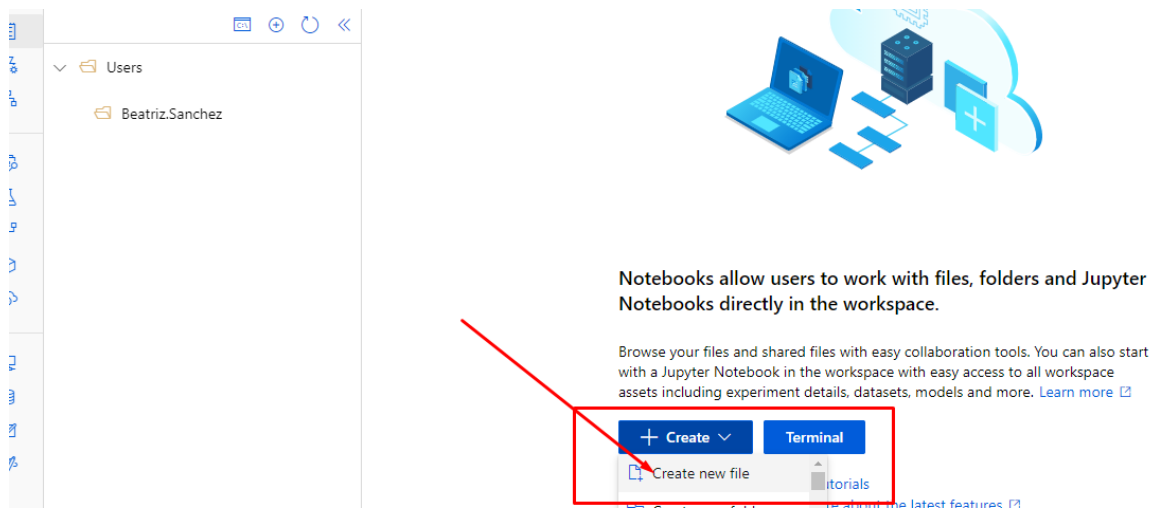
6.- Azure Machine Learning ofrece varios recursos de los cuales puedes aprender en:

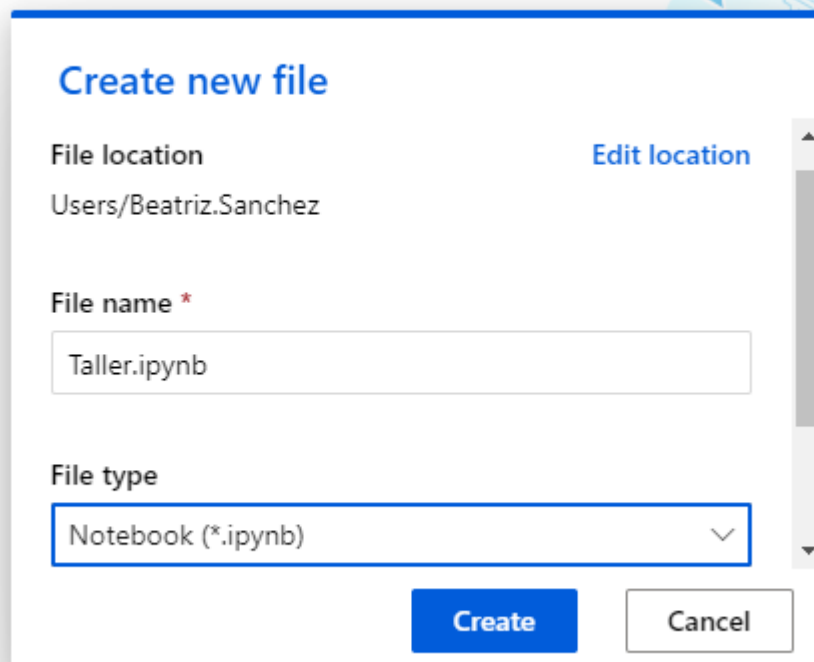
<https://docs.microsoft.com/en-us/learn/>

Por ahora haremos uso de los notebooks para comenzar a crear algunas visualizaciones de datos.



7.- Crea un nuevo archivo de tipo notebook





Create new file

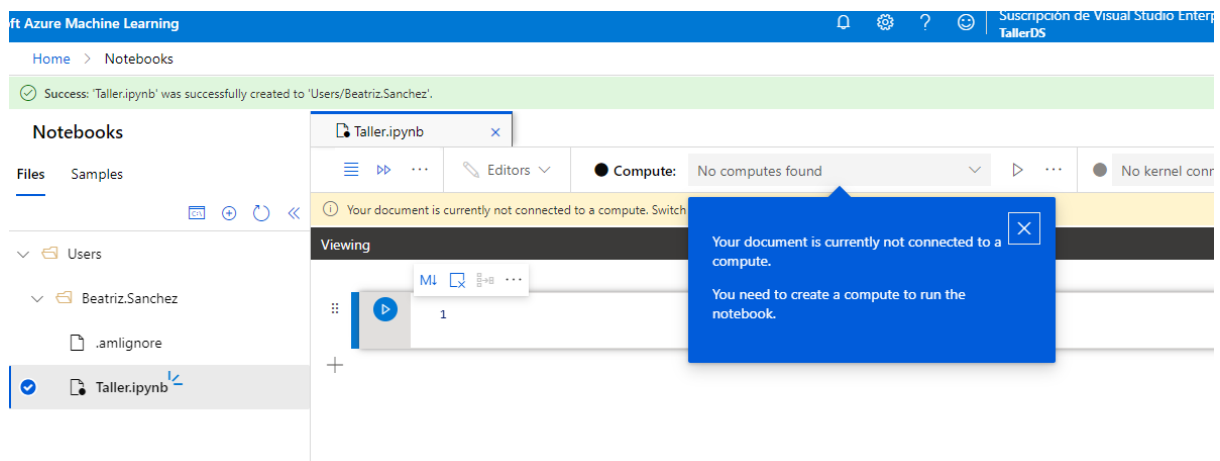
File location Edit location
Users/Beatriz.Sanchez

File name *
Taller.ipynb

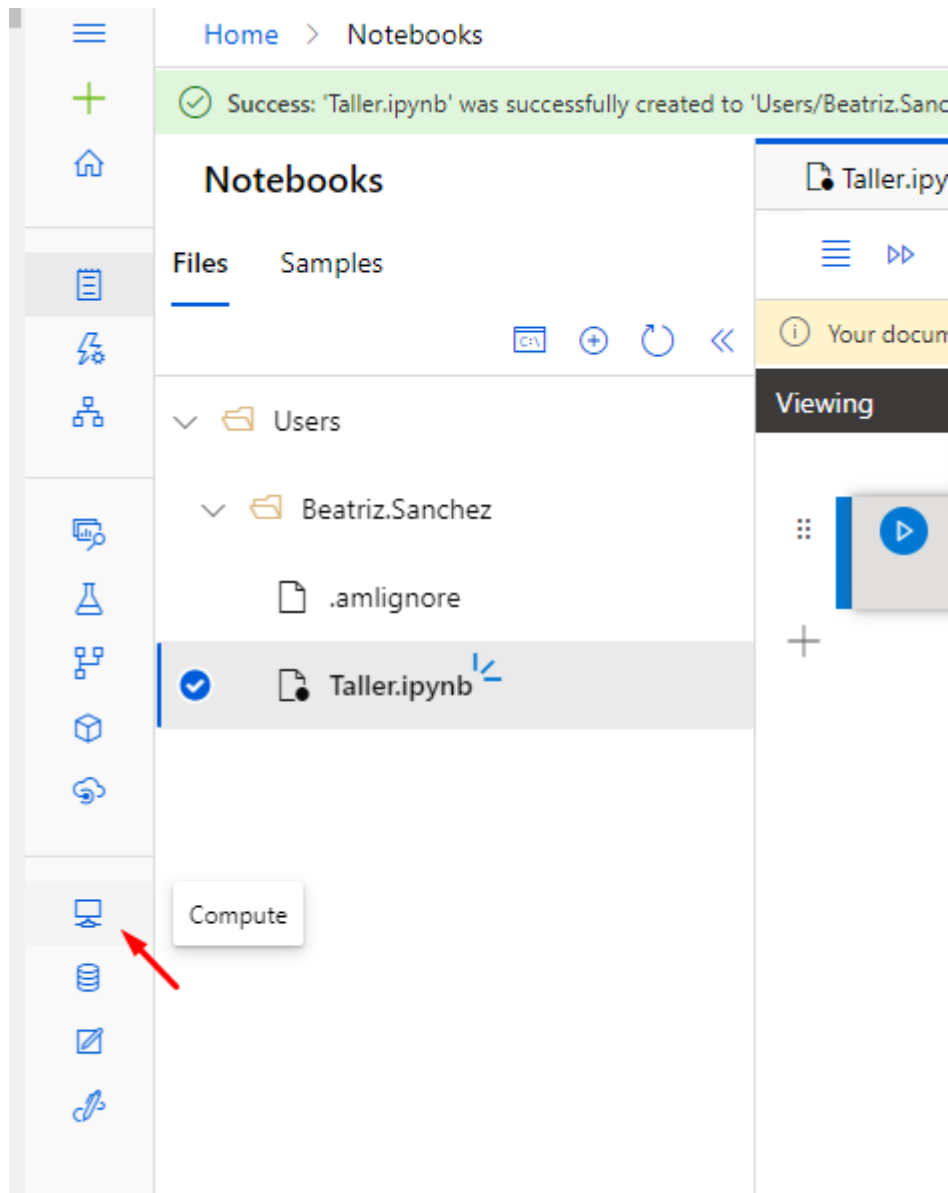
File type
Notebook (*.ipynb)

Create **Cancel**

8.- Para trabajar con un cuaderno en azure es necesario tener alguna computadora en este caso una virtual, si ya tienes una solo seleccionala en caso de no tenerla vamos a crearla.



9.- En la barra de lado izquierdo aparece un icono de computadora, dale click.



10.-Te dará las opciones para crear tu máquina virtual, no necesitamos muchos recursos por lo que puedes seleccionar la más básica.

Microsoft Azure Machine Learning

Create compute instance

☒ Virtual Machine
☐ Settings

Select virtual machine

Virtual machine type ☒ CPU ☐ GPU

Virtual machine size ☒ Select from recommended options ☐ Select from all options

Total available quota: 24 cores

| Name | Category | Workload types | Av... | Cost |
|--|------------------|---|----------|-----------|
| <input checked="" type="radio"/> Standard_DS2_v2 2 cores, 7GB RAM, 14GB storage | General purpose | Development on Notebooks (or other IDE) and light weight testing | 20 co... | \$0.15/hr |
| <input type="radio"/> Standard_DS3_v2 4 cores, 14GB RAM, 28GB storage | General purpose | Classical ML model training, AutoML runs, pipeline runs (default compute) | 20 co... | \$0.29/hr |
| <input type="radio"/> Standard_DS12_v2 4 cores, 28GB RAM, 56GB storage | Memory optimized | Training on large datasets (>1GB) parallel run steps, batch inferencing | 20 co... | \$0.37/hr |

Back Next Cancel

Create compute instance

☒ Virtual Machine
☒ Settings

Configure Settings

Configure compute instance settings for your selected virtual machine size.

| Name | Category | Cores | Available quota | RAM | Storage | Cost/Hour |
|-----------------|-----------------|-------|-----------------|------|---------|-----------|
| Standard_DS2_v2 | General purpose | 2 | 20 cores | 7 GB | 14 GB | \$0.15/hr |

Compute name * Taller-VM

☐ Enable SSH access

> Show advanced settings

Back Create Download a template for automation Cancel

Home > Notebooks

Success: Successfully created directory 'Users/Beatriz.Sanchez/data'

Notebooks

Files Samples

Users

Beatriz.Sanchez

data

.amlignore

Taller.ipynb

Create new file

Create new folder

Upload files

Upload folder

Copy folder path

Open terminal

Taller.ipynb

Editors

Compute: Taller-VM - Running

Taller-VM · Jupyter kernel idle

```
[5] 1 #PAQUETES
2 import pandas as pd
3 import numpy as np
4
5 import seaborn as sns
6 %matplotlib inline
7 import matplotlib as plt
8 from matplotlib import pyplot
```

Success: Successfully created directory 'Users/Beatriz.Sanchez/data'

Notebooks

Files Samples

Users

Beatriz.Sanchez

data

.amlignore

Taller.ipynb

Upload files

Uploading...

Uploading to 'data'

Uploading: 'Distribucion-fuerza-...'

Upload

Microsoft Azure Machine Learning

Home > Notebooks

Notebooks

Files Samples

Users

Beatriz.Sanchez

data

.amlignore

Taller.ipynb

Taller.ipynb

Editors


Compute: Taller-VM - Running

Python 3.6 - AzureML

Taller-VM · Jupyter kernel idle

```
3 fuerza_laboral1620
```

| | Category ID | Category | Group ID | Group | Subgroup ID | Subgroup | Occupation |
|---|-------------|----------------------------------|----------|---|-------------|---|------------|
| 0 | 1 | Funcionarios, Directores y Jefes | 11 | Funcionarios y Altas Autoridades de los Sector... | 111 | Funcionarios, Legisladores y Autoridades Guber... | 1112 |
| 1 | 1 | Funcionarios, Directores y | 11 | Funcionarios y Altas Autoridades | 111 | Funcionarios, Legisladores y Autoridades | 1113 |



The screenshot shows the top toolbar of the JupyterLab interface. It includes icons for running a cell (a blue play button), saving the notebook (a floppy disk icon), and deleting a cell (a trash can icon). Below the toolbar, a dropdown menu is open, showing options to add a new 'Code cell' (indicated by a blue code icon) or a new 'Markdown cell' (indicated by a blue 'M' icon).