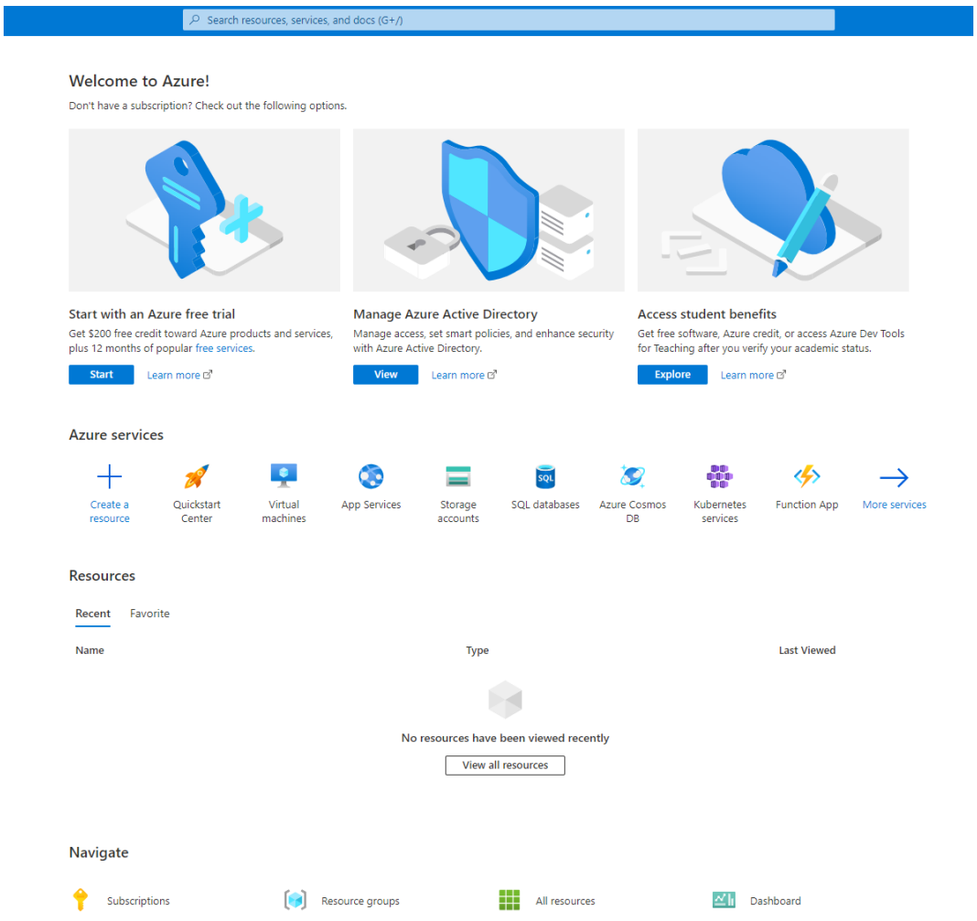
Azure Quantum Sign Up Instructions

1 Create an Azure account

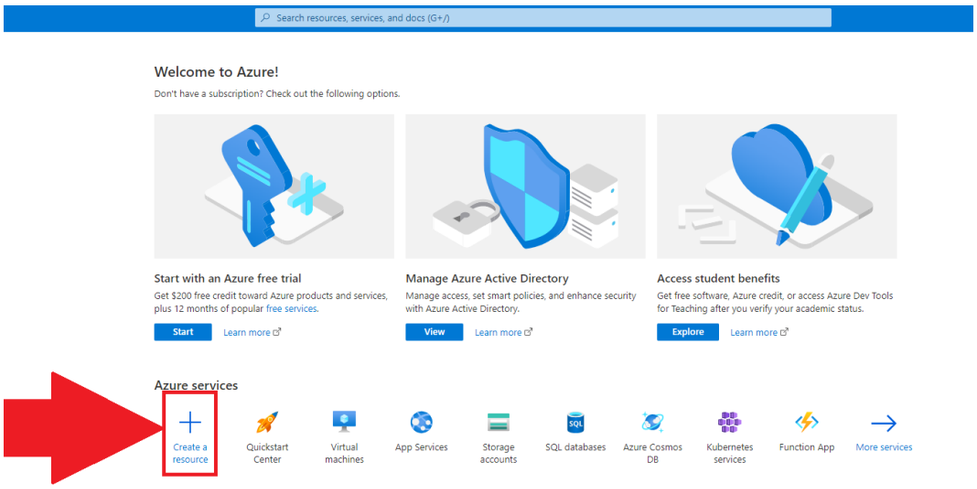
You need to navigate to portal.azure.com and register for an account. After this, you will need to create a subscription. The two plans we recommend are the free student subscription and free professional subscription. If you have a .edu email, we highly recommend you use it in order to take advantage of the free student subscription offer. You will need to verify that Azure Quantum is available in your country. You can check this on the Azure Quantum Provider Avilability List.

2 Create your quantum resource

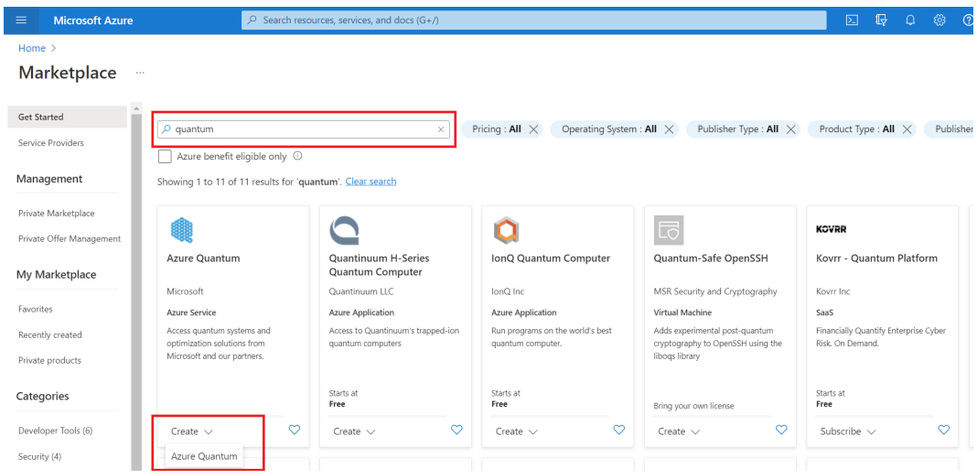
Once you have your account, navigate to the Azure Portal home page.



This is your homepage. From here click on “Create a resource”

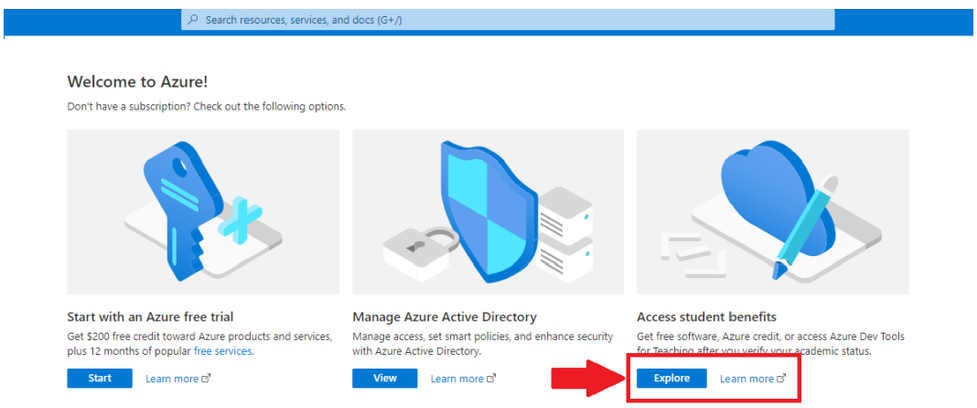


In this new window, type “Azure Quantum” into the search bar. Then click on the ”Create” button to begin creating your quantum workspace. Alternatively, you can use this shortcut to begin the workspace creation process.

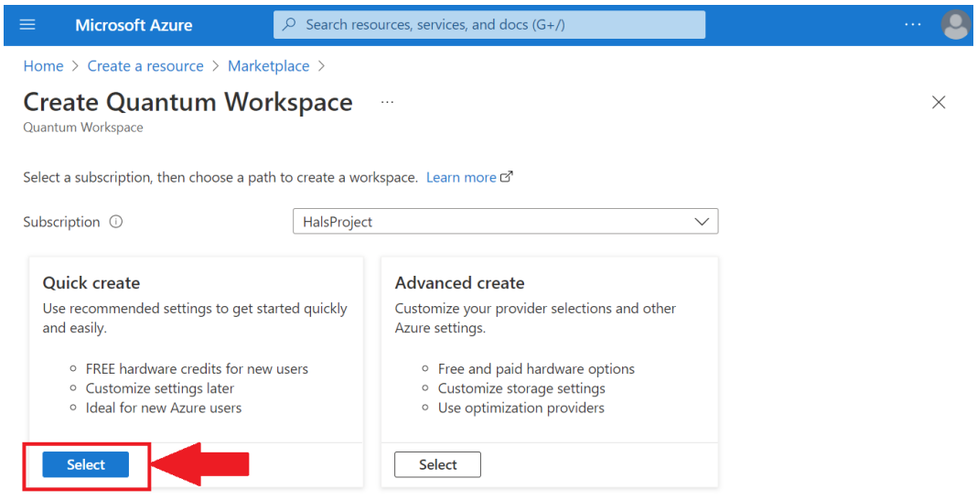


Once you do this, you will be prompted to select a subscription. Click “Explore” to begin the process of creating the subscription. This will take you away from the Azure portal.

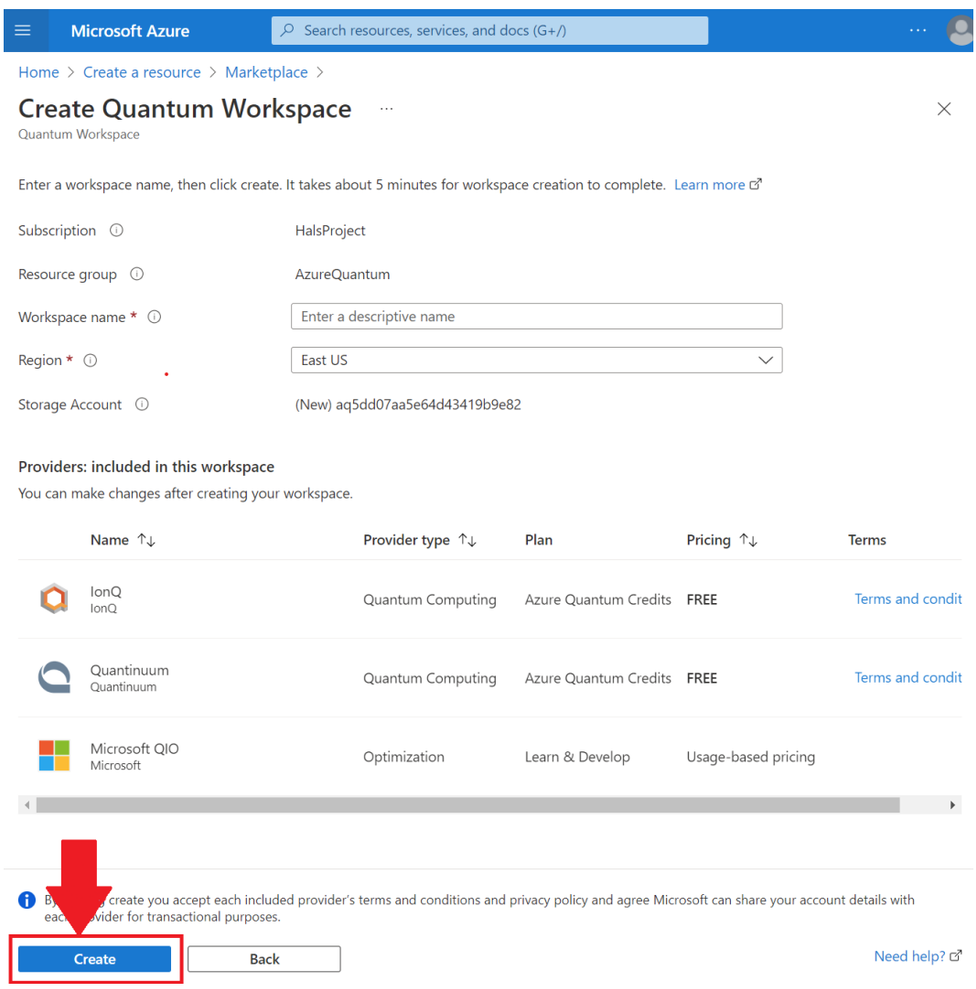
We recommend you use a student subscription; however, this requires a .edu email. If you cannot create a student subscription, you should register for the regular free trial.



After setting up your subscription you can return to making the quantum workspace. If you left the resource creation page, repeat the previous steps, or just go to this shortcut. Next, choose your subscription and select the "Quick create" option.

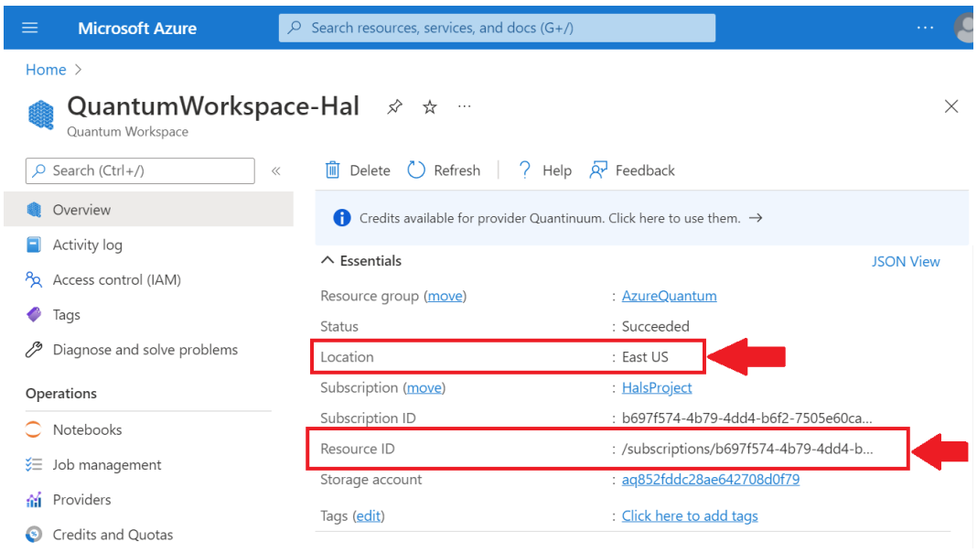


Now enter a workspace name and choose a region close to you. Then click the "Create" button.

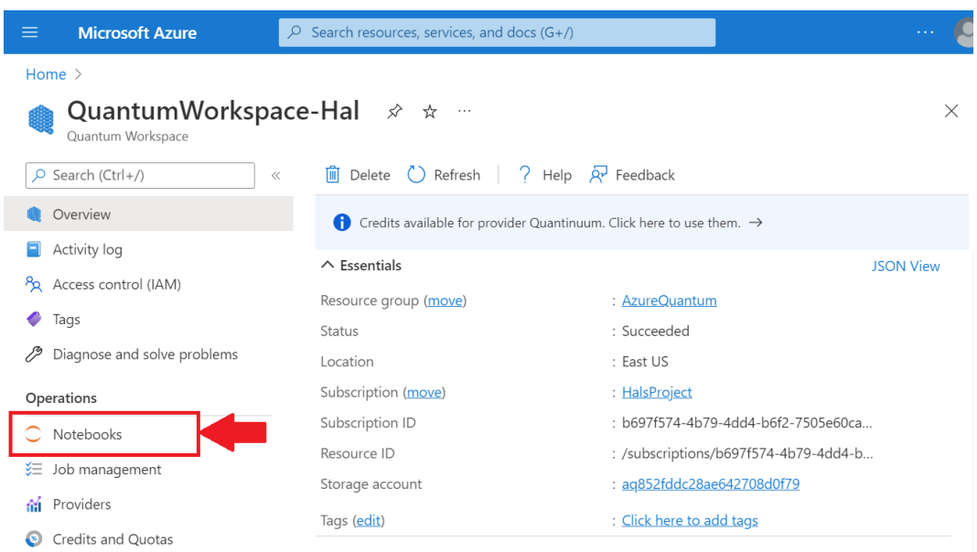


3 Uploading the assignments

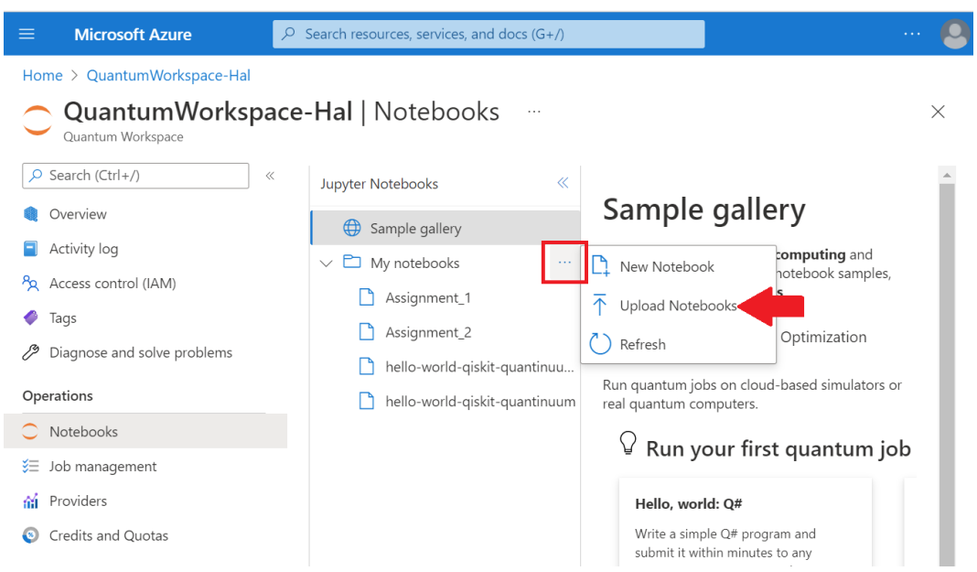
Once you have your workspace, it will appear in your homepage. Navigate to the workspace; it should look like this. On this page take note of the Resource ID and Location, these will both be important later.



For now, navigate to Operations→Notebooks.

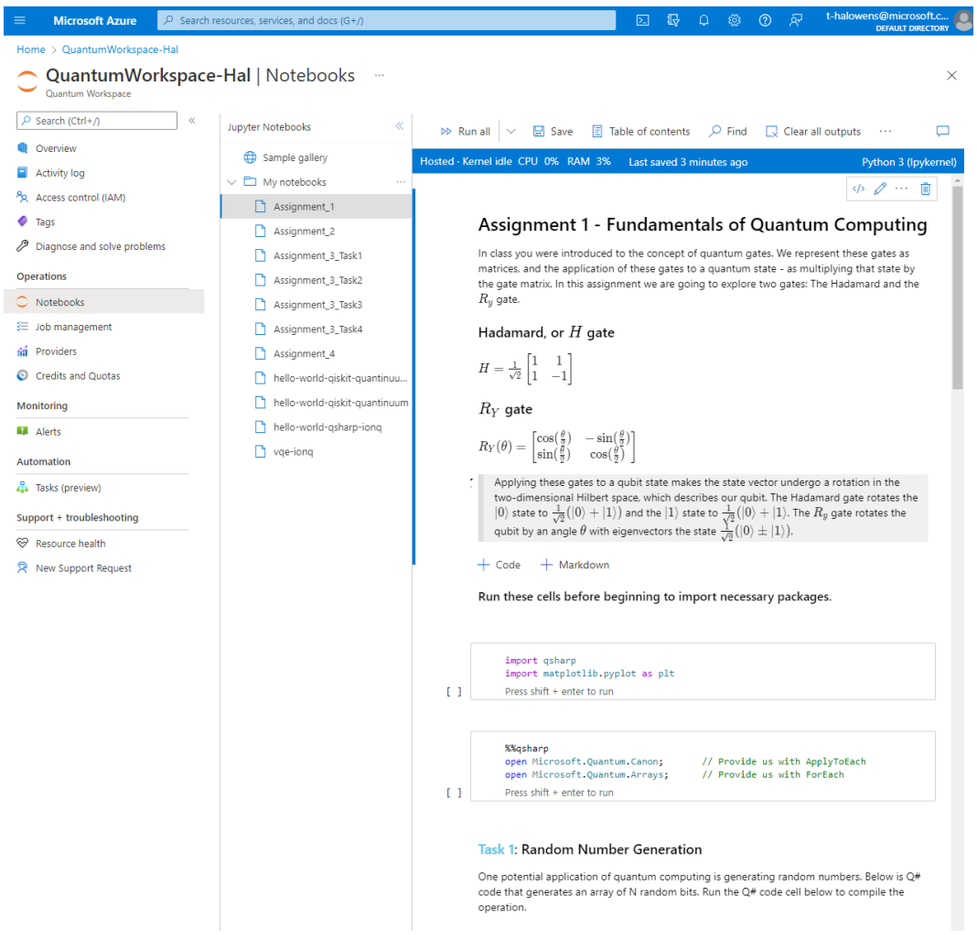


From here you can click on My Notebooks and then upload the assignment notebooks.



4 Doing the assignments

You can now open the notebooks and begin working on them. Assignment 1 will look like this.



If you are unfamiliar with Jupyter Notebooks, here is a brief overview. A notebook is composed of code cells and Markdown cells. Markdown cells contain text and formulas and do not need to be modified. Code cells contain Python or Q# code that can be executed. In these assignments you will be reading the instructions in the Markdown cells and then executing Q# and Python code cells that will demonstrate certain concepts and algorithms. You can run a cell by pressing the triangle next to each cell when you hover over them, or Ctrl+Enter (Cmd+Enter on macOS). For these assignments you will generally go through the notebook and run each cell, answering questions as you encounter them. If things are taking too long, you may need to restart the notebook which can be done at the top.

Occasionally you will encounter a cell that looks like this. Notice the qsharp.azure.connect() function.

In this function you will need to put your resource id and location inside of the quotation marks. Remember these can be found on the main page of your quantum workspace.