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INTERNATIONAL

Tidal Basin: Power BI Python Environment Set Up Tutorial

Introduction

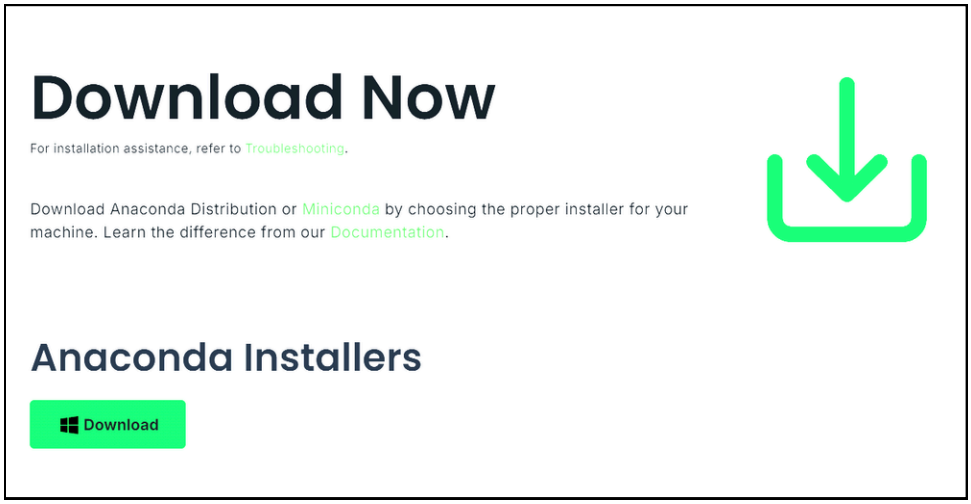
This tutorial focuses on guiding users through the process of integrating a Tidal Basin Python environment with Power BI Desktop. By establishing this Python environment within Power BI, users gain the capability to utilize the boto3 package in Python for connecting to a Tidal Basin AWS S3 Bucket that stores dynamically updating data used for generating reports. Setting up the Python environment involves creating a new environment in Anaconda Navigator, installing essential packages such as pandas, matplotlib, and boto3, and configuring Power BI to utilize this designated environment. This procedure is essential for seamlessly linking the Tidal Basin Power BI Reports with the AWS S3 Bucket hosting the real-time data required for report generation.

Table of Contents

1: Download Anaconda Navigator

Download Anaconda Navigator:

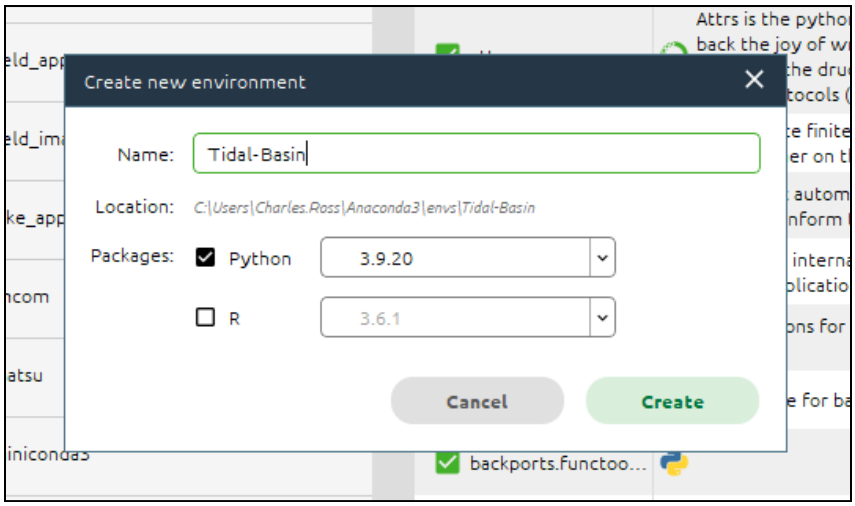
- Go to the Anaconda website here and download the Anaconda Navigator for your operating system.
- Follow the default installation instructions to install Anaconda Navigator on your computer.



2: Create Tidal Basin Environment

Create a new environment called Tidal-Basin:

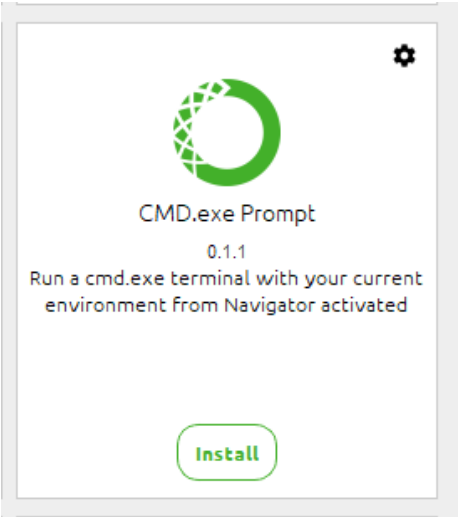
- Open Anaconda Navigator and go to the **Environments** tab.
- Click on the Create button and enter **"Tidal-Basin"** as the name of the new environment.
- Select the python packages option, the default version will auto-populate. Click Create to **Create** the new environment.



3: Install CMD.exe Prompt

Install CMD.exe Prompt for the Environment:

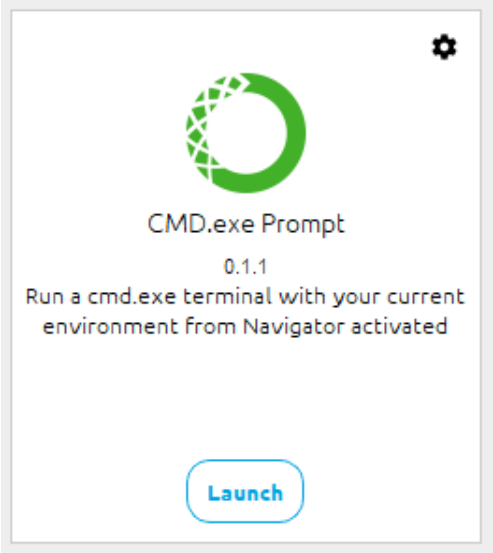
- After environment created, select Home.
- Locate the CMD.exe Prompt Placard.
- Select **Install**

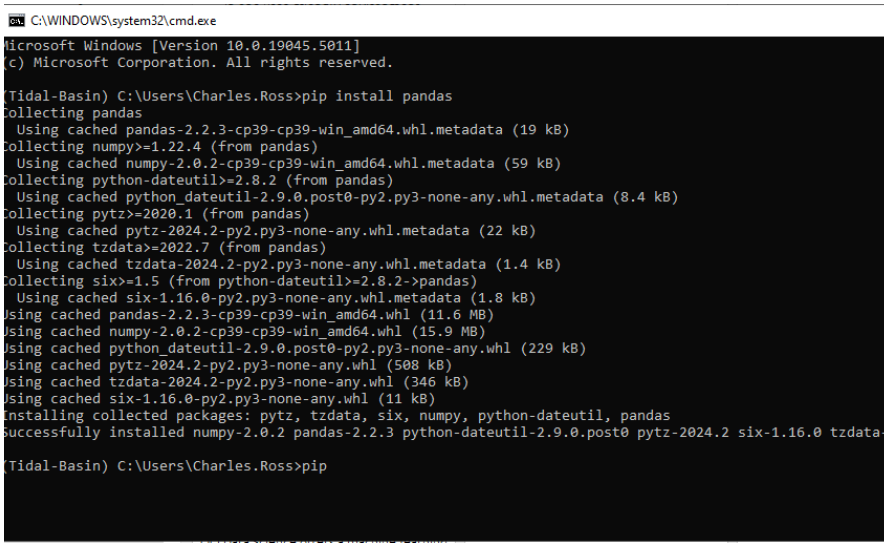


4: Install Packages

Pip Install Required Packages:

- Locate CMD.exe Prompt again.
- Select **Launch**
- A command line interface (CLI) will appear, copy and paste the below lines of code into the CLI one at a time and hit Enter.
  - pip install pandas
  - pip install boto3
  - pip install matplotlib
- After each install, confirm that the package was downloaded correctly before continuing to the next package.
- Keep the CLI open for the next step.

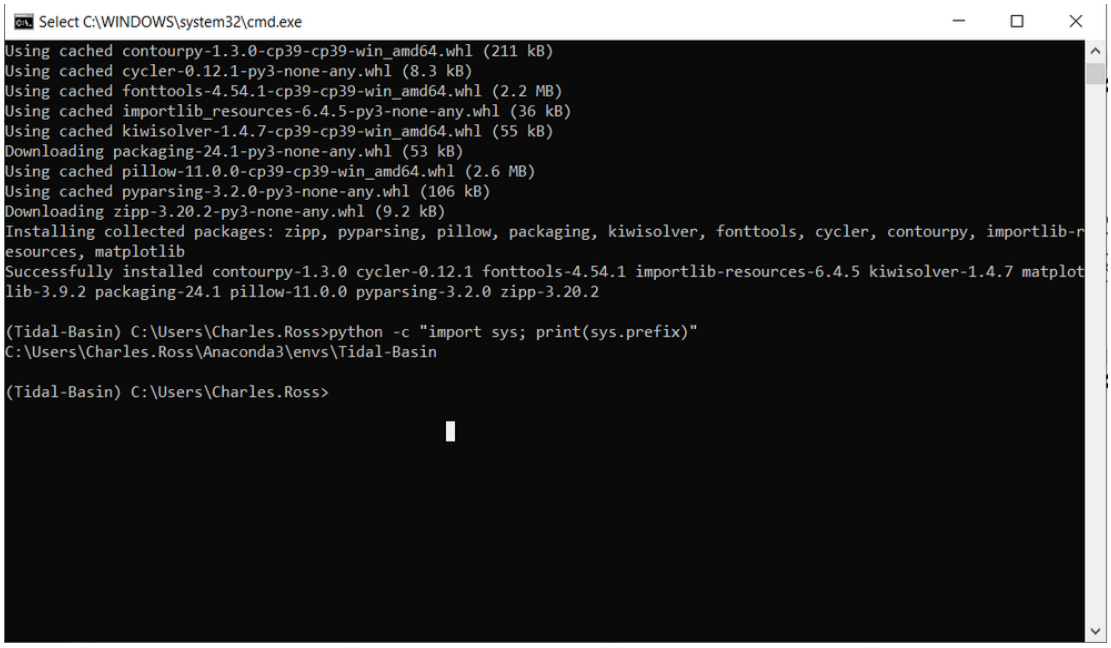




5: Locate Environment Folder Path

Locate Tidal-Basin Environment Folder Path and Copy:

- While still in the CLI
- Copy and paste the following code into the command line
  - python -c "import sys; print(sys.prefix)"
- Copy the resulting folder path that appears and save for later use.

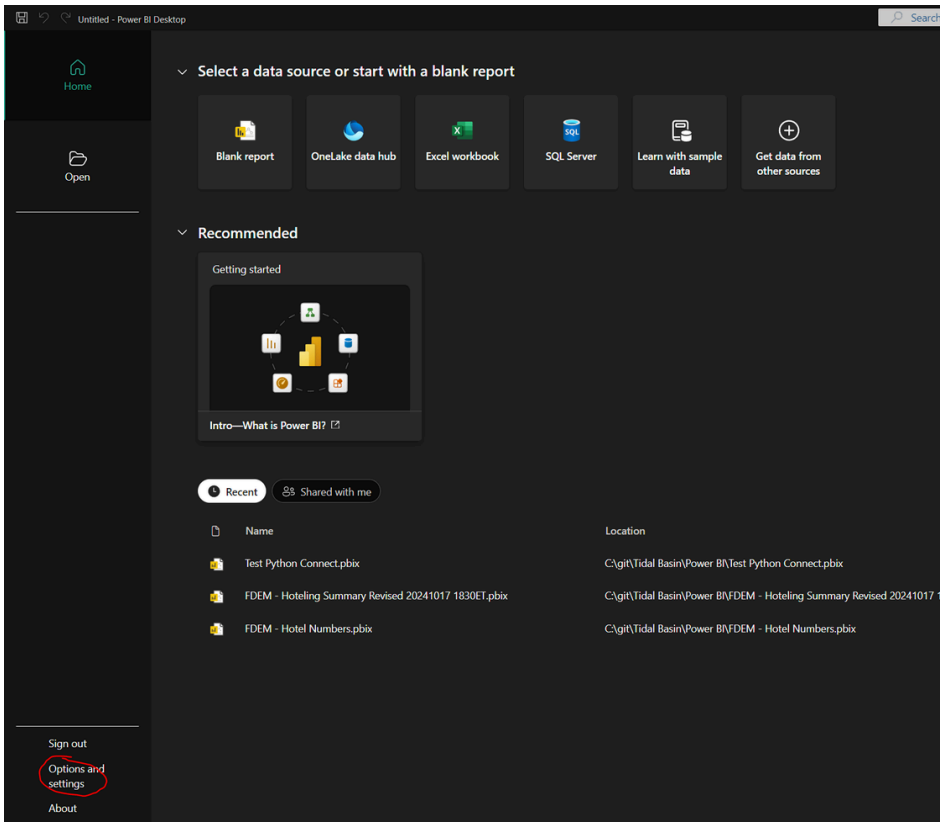


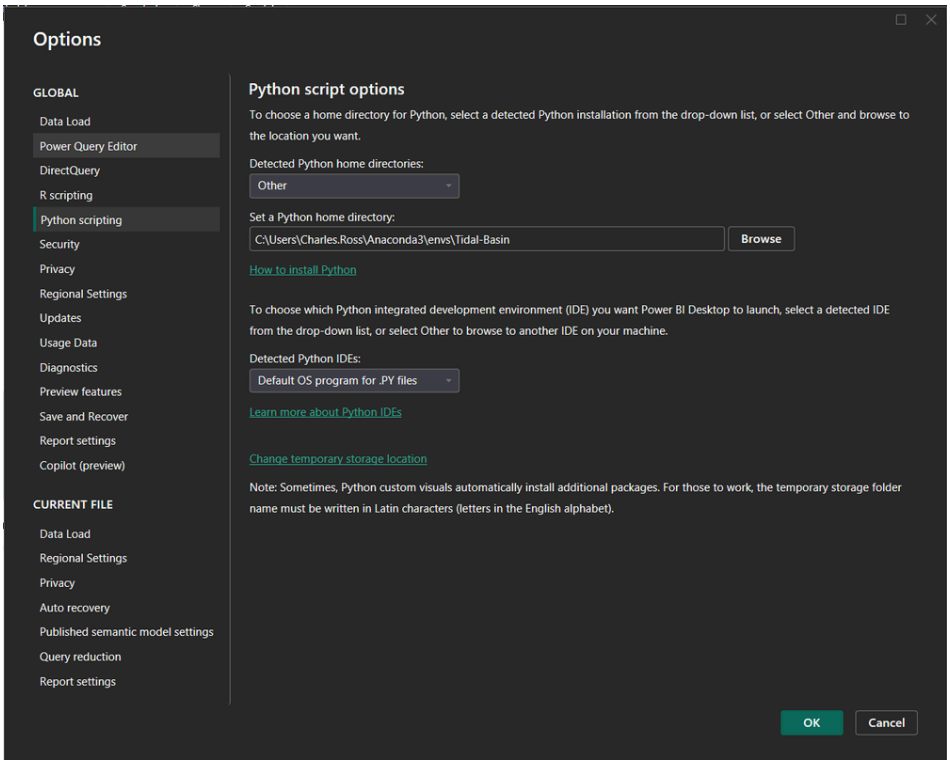
6: Set Python Environment in Power BI

Set Power BI Python Settings to Tidal Basin Environment:

- Open Power BI Desktop

- On bottom left, select **Options and Settings**
- Select **Options**
- In the resulting option menu, find and select **Python Scripting**
- For **Detected Python Home Directories**, select **Other**
- In **Set a Python Home Directory** paste the stored folder path from the previous step
- Select **OK**





Complete

You have now successfully set up the python environment needed to connect a Power BI Report to the Tidal Basin S3 Bucket. Proceed to the next tutorial