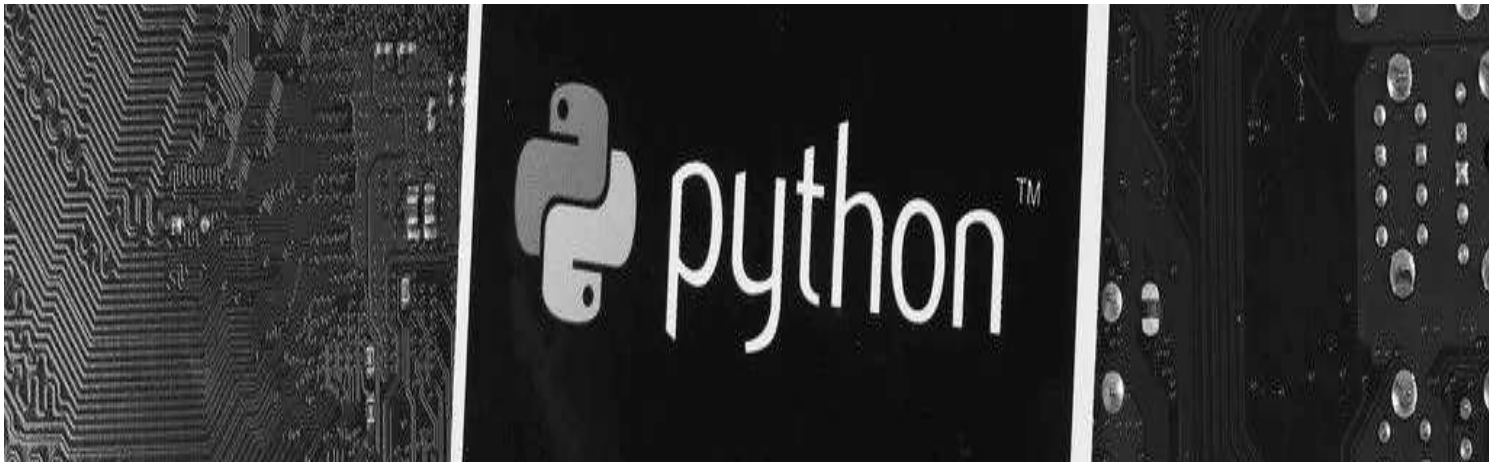

Python Trainings & Certifications

Certifications

Category	Certification	Skill Level	Price (USD)	Prerequisite
General-Purpose Programming	Python Certified Entry-Level Programmer (PCEP)	Entry	$59 (Exam) $76.70 Exam + Retake) $71.00 (Exam + Practice Test) $29 (Practice Test)	N/A
Data Science Programming	Python Certified Entry-Level Data Analyst (PCED)	Entry	$59 (Exam) $76.70 (Exam + Retake)	Python Certified Entry-Level Programmer (PCEP)
General-Purpose Programming	Python Certified Associate Programmer (PCAP)	Associate	$295 (Exam) $345 (Exam + Retake) $359 (Exam + Retake + Practice Test) $49 (Practice Test)	Python Certified Entry-Level Programmer (PCEP)
Data Science Programming	Python Certified	Associate	$295 (Exam) $319 (Exam + Practice Test)	Python Certified Entry-

Category	Certification	Skill Level	Price (USD)	Prerequisite
	Associate Data Analyst (PCAD)		$49 (Practice Test)	Level Data Analyst (PCED)
General-Purpose Programming	Python Certified Professional Programmer Level 1 (PCPP1)	Professional	$195 (Exam)	Python Certified Associate Programmer (PCAP)
General-Purpose Programming	Python Certified Professional Programmer Level 2 (PCPP2)	Professional	$195 (Exam)	Python Certified Professional Programmer Level 1 (PCPP1)

Applications

Application	Uses
GitHub	Cloud-based repository used to store Python code
Snowflake	Cloud-based & web-based application used to execute and schedule Python code in production
PowerShell	Application used to install and update Python, including Python packages that is used in writing and testing Python code in Visual Studio Code
Visual Studio Code	Application used to write and test Python code in dev and test

Feature & Function Trainings

Feature Name	Feature Definition
cursor	A class that allows Python code to execute SQL code against a database

Feature Name	Feature Definition
DataFrame	2-dimensional data structure, like a 2-dimensional array, or a table with rows and columns
for loop	A command that is used for iterating over a sequence (list, tuple, dictionary, set, etc.) and execute a set of statements, once for each item in the sequence
Packages & Libraries	A package is a collection of libraries A library is a collection of precompiled code that can be used for specific well-defined operations
with	A command that is used in exception handling to make the code cleaner and much more readable, which simplifies the management of common resources like file streams.

Installing Python

Reference this link to install Python on Windows or follow the instructions below.

Install Python:

Step 1: Go to your **Start** menu (lower left Windows icon), type "**Microsoft Store**", select the link to open the store.

Step 2: Once the store is open, select **Search** from the upper-right menu and type "**Python**". Select the most recent version of Python from the results under **Apps**, select **Get**.

Step 3: Once Python has completed the downloading and installation process, open **Windows PowerShell** using the **Start menu** (lower left Windows icon). Once **PowerShell** is open, type "**Python --version**" and press **Enter** to confirm that

Python3 (latest version) has installed on your machine. If **Python** was installed correctly, you will see the Python version as displayed below.

Step 3 Screenshot

Step 4: The Microsoft Store installation of Python includes **pip**, the standard package manager. **Pip** allows you to install and manage additional packages that are not part of the **Python standard library**. To confirm that you also have **pip** available to install and manage packages, type **"pip --version"** and press **Enter**. If **pip** was installed correctly, you will see the pip version as displayed below.

Installing Python Packages

Step 1: Open **Windows PowerShell** using the **Start menu** (lower left Windows icon)

Step 2: Once **PowerShell** is open, type **"pip install manager"** and press **Enter**. The **pip install manager** may have been installed when you initially installed **Python.** If this is the case, you will see an error message.

Step 3: Now that **pip install manager** is installed, lets install some additional **Python packages** that will be useful in our **data pipelines**. Enter each of the following in **PowerShell** to install each **Python package**:

***** Note ***: Be sure to include all double-quotes and square brackets, if exists, in the code below**

Type "**pip install python**" and press Enter, this is a common Python library for data pipelines and data modeling

Type "**pip install pandas**" and press Enter, this **Python library** allows developers to utilize **Pandas DataFrames** in their Python code

Type "**pip install "snowflake-connector-python[pandas]"**" and press **Enter**, this **Python connector** allows us to connect to our **Snowflake** environment and utilize **Pandas DataFrames**

Type "**pip install --upgrade snowflake-sqlalchemy**" and press **Enter**, this **Python library** allows developers to utilize **SQL code** blocks in their Python code

Type "**pip install azure-storage-blob azure-identity**" and press **Enter**, this **Python library** allows us to connect to our **Azure Blob Storage** environment

Type "**pip install requests**" and press **Enter**, this **Python library** allows us to connect to **API** environments

Type "**pip install jsonlib**" and press **Enter**, this **Python library** allows us to work with **JSON (semi-structured) files**

Type "**pip install paramiko**" and press **Enter,** this **Python library** allows us to connect to **SFTP** environments

Type "**pip install simple_salesforce**" and press **Enter,** this **Python library** allows us to connect to **Salesforce** environments

Type "**pip install datetime**" and press **Enter,** this **Python library** allows us to work with **dates and times**

Installing Visual Studio Code

Reference this link to install Visual Studio Code on Windows or follow the instructions below.

Step 1: To install **VS Code**, download **VS Code** for Windows: **https://code.visualstudio.com.**

Step 2: Once **VS Code** has been installed, you must also install the **Python extension.** To install the **Python extension**, you can select the **VS Code Marketplace link** or open **VS Code** and search for **Python** in the extensions menu **(Ctrl+Shift+X)**.

Step 3: Python is an interpreted language, and in order to run Python code, you must tell **VS Code** which **interpreter** to use. Once you've installed the **Python extension**, select a **Python 3 interpreter** by opening the **Command Palette (Ctrl+Shift+P)**, start typing the command **"Python: Select Interpreter"** to search, then select the command.

Step 4: To open the terminal in **VS Code**, select **View > Terminal**, or alternatively use the shortcut **Ctrl+`** (using the backtick character). The default terminal is **PowerShell**.

Step 5: Inside your **VS Code terminal**, open **Python** by simply entering the command: **"python"**

Step 6: Try the **Python interpreter** out by entering: **"print("Hello World")"**. **Python** will return your statement **"Hello World"**. *See image below for assistance*