Python cheat sheet for DP-100

Python is a programming language often used for machine learning by data scientists. The exercises in the Azure Data Scientist course (DP-100) use Python to train models. To understand the notebooks included in the exercises, you can use this cheat sheet.

PIP install

Your code can refer to libraries and packages to perform specific tasks.

pip install to install the libraries and packages on your compute.
pip show to verify an installment and its version.

```
pip install azureml-sdk
pip show azureml-sdk
```

From, import, as

To use a method in your code, import the method from a library or package.

from to specify the library.
import to specify the class.
as to create an alias that is easier to reference.
. to access a method within a class.

```
from azureml.core import Workspace
import pandas as pd
import numpy as np
import matpotlib.pyplot as plt
```

pandas, numpy, matplotlib

Three common Python libraries to work with data are pandas, numpy, and matplotlib.

pandas to ingest and process data.
numpy to work with numerical data as arrays.
matplotlib to visualize data and plot graphs.

```
data = pd.read_csv('diabetes.csv')
Accuracy = np.float(acc)
fig = plt.figure()
```

Parameters

Many functions expect input parameters. You can have both required and optional parameters.

() to encapsulate input parameters. Go to the documentation of the library to see which parameters to include and how.

```
y_pred = model.predict(X_test)
```

Variables and print

Variables temporarily store data.
Print text and variables to verify your work.

= to create a variable of any type.
print() to show a message. You can include a variable to verify its contents.

```
data = pd.read_csv('diabetes.csv')
print(data)
```

Comments

Add comments to code to describe what you are doing. Comment lines will not be executed.

to comment a line.

```
# Count the rows and log the result
row_count = (len(data))
```

Learn more on:

[Azure Machine Learning SDK for Python](#)   [pandas](#)   [Write basic Python in Notebooks](#)

[numpy](#)   [matplotlib](#)   [Code control statements in Python](#)