**IBM Python101 for Data Science**

1. Python is often described as powerful, yet easy to learn.
2. It comes with thousands of libraries for working with data.
3. Python is often the first tool people grab when they need to create a quick prototype/model/sample/paradigm/typical, yet it is the language that powers some of the most complex projects.

Why is Python important for data driven jobs?

The power and flexibility with thousands of libraries made Python the language of choice for data scientists, data engineers, data analysts and AI researchers in leading companies and startups alike. Python is essential for any resume and it is a must-have skill for anyone who works with data.

### **Learning Objectives**

The objectives of this course are to get you started with Python as a programming language and to give you a taste of how to start working with data in Python.

In this course you will learn about:

* + What is Python and why it is useful
  + The application of Python
  + How to define **variables**
  + **Sets** and **conditional statements** in Python
  + The purpose of having **functions** in Python
  + How to operate on files to **read and write data** in Python
  + How to use **pandas**, a must-have package for anyone attempting data analysis in Python\

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## Objectives: After completing this lab you will be able to:

\* Write basic code in Python

\* Work with various types of data in Python

\* Convert the data from one type to another

\* Use expressions and variables to perform operations

Lab Instructions

**How do I run Python?**You can use the Skills Network Labs environment to run Python code in Jupyter notebooks by simply clicking on the "*Start Lab*" button below.

**Do I need to download or install Python?**No, you can use Python directly within your web browser through Skills Network Labs. Just click on the "*Start Lab*" button below and Skills Network Labs will load directly on this page.

**Which version is used in these labs: Python 2 or Python 3?**All of these labs use Python 3.

**What is "Skills Network Labs"?**Skills Network Labs is a virtual lab environment that lets you practice what you learn in these courses.

**What are "Jupyter Notebooks"?**Jupyter Notebooks are a popular data science tool that lets data scientists write code, see the results, and describe what's happening -- all in a single document.