# Python Library: Pandas for Beginners

**Subheading:** *Learn the basics of data analysis with Pandas and master one of the most popular open-source Python libraries that is also easy to use.*

Pandas is one of the most popular Python libraries, used for data analysis and manipulation. It is commonly used in data science, machine learning, and artificial intelligence. If you are going to work in any of these areas, you will want to be familiar with Pandas. It's easy to use, open-source, and will allow you to work with large quantities of data. It enables fast and efficient data manipulation, aggregation, and pivoting, flexible time series functionality, and more.

This course will introduce the learner to the basics of data analysis with the Pandas library. First, you'll learn to work with two primary data structures in Pandas, Series and DataFrame. Then you will see how to read data from a file and explore input data using indexing and filtering. At this point, you are ready to start data preprocessing. You will see how to handle missing values and duplicate rows and to transform your data into a more efficient format. Next, you'll discover how to manipulate the data and do some processing. Finally, you'll delve into creating simple plots to visualize your data.

This course assumes no previous Pandas experience, but since Pandas is a package built for Python, you need to have a fundamental understanding of basic Python syntax.

This course will include:

* An overview of Pandas
* Installing Pandas on your computer
* Using the two primary Pandas data structures, Series and DataFrame
* Viewing data imported from an external source
* Organizing input data using indexing and filtering
* Using Pandas for data preprocessing
* Addressing missing values and duplicate rows
* Formatting your data most efficiently
* Processing different data types
* Data manipulation using string functions
* Date and time formatting