

Course Title: Applied Data Science with Python [Code-2005]

Skilltech offer comprehensive course on **Applied Data Science with Python**, Skilltech designed the course with the help of industry leaders and faculty from prestigious institute of India. The course curriculum is prepared in such a way, which help students to learn the concepts quickly and apply in real world application. Comprehensive and quality course material is given to students for reference. SkillTech not only helps students to learn the concepts and technical stuff, also prepare students for interview and provide job assistance.

The Data Science with Python course empowers you to excel in Python programming. You will develop insight into data science, data analysis, data visualization, data wrangling, feature engineering & statistics.

Course Key Features:

1. Learn Python's tools and techniques used for data analytics.
2. Learn Python for various data science job roles.
3. Engage in a blended learning approach and learn data analytics concepts
4. Explore practical applications of Python in Data Science..
5. Propel your data science career with specialized data science training..
6. Live sessions by faculty from prestigious institute and industry experts..

Skills Covered in Course: (Will Be displayed on the first Page)

1. Learn Python programming from basic to advance.
2. Learn Data visualization and analysis using Python..
3. Learn Python Data Structures & Data Types
4. Learn Python Program Flow.
5. Build Hypothesis using Python.
6. Learn Advance Forecasting and decision making using Python.

Course Card Details

1. Analyze business data using Python and support the management in formulating growth strategy..
2. Perform exploratory data analysis and hypothesis testing to better understand the various factors contributing to business growth..
3. Up skill the data analytics concepts and life cycle with real-life use cases.
4. Very useful for Business Analysts who wish to work on Data Science and Business Analytics projects using Python..

Topic Covered:**Module 1: An Introduction to Python**

- ✓ What can Python do?
- ✓ Why Python?
- ✓ Good to know
- ✓ Python Syntax compared to other programming languages
- ✓ Python Install

Module 2: Beginning Python Basics

- ✓ The print statement
- ✓ Comments
- ✓ Python Data Structures & Data Types
- ✓ String Operations in Python
- ✓ Simple Input & Output
- ✓ Simple Output Formatting
- ✓ Operators in python
- ✓

Module 3: Python Program Flow

- ✓ Indentation
- ✓ The If statement and its' related statement
- ✓ An example with if and it's related statement
- ✓ The while loop
- ✓ The for loop
- ✓ The range statement
- ✓ Break &Continue
- ✓ Assert
- ✓ Examples for looping

Module 4: Functions& Modules

- ✓ Create your own functions
- ✓ Functions Parameters
- ✓ Variable Arguments
- ✓ Scope of a Function
- ✓ Function Documentations
- ✓ Lambda Functions& map
- ✓ n Exercise with functions
- ✓ Create a Module
- ✓ Standard Modules
- ✓

Module 5: Exceptions Handling

- ✓ Errors
- ✓ Exception handling with try
- ✓ handling Multiple Exceptions



- ✓ Writing your own Exception

Module 6: File Handling

- ✓ File handling Modes
- ✓ Reading Files
- ✓ Writing& Appending to Files
- ✓ Handling File Exceptions
- ✓ The with statement

Module 7: Classes In Python

- ✓ New Style Classes
- ✓ Creating Classes
- ✓ Instance Methods
- ✓ Inheritance
- ✓ Polymorphism
- ✓ Exception Classes & Custom Exceptions

Module 8: Generators and iterators

- ✓ Iterators
- ✓ Generators
- ✓ The Functions any and all
- ✓ With Statement
- ✓ Data Compression

Module 9: Data Structures

- ✓ List Comprehensions
- ✓ Nested List Comprehensions
- ✓ Dictionary Comprehensions
- ✓ Functions
- ✓ Default Parameters
- ✓ Variable Arguments
- ✓ Specialized Sorts

Module 10: Collections

- ✓ Namedtuple()
- ✓ Deque
- ✓ ChainMap
- ✓ Counter
- ✓ OrderedDict
- ✓ Defaultdict
- ✓ UserDict
- ✓ UserList
- ✓ UserString

Module 11: Writing GUIs in Python (Tkinter)



- ✓ Introduction
- ✓ Components and Events
- ✓ An Example GUI
- ✓ The root Component
- ✓ Adding a Button
- ✓ Entry Widgets
- ✓ Text Widgets
- ✓ Check buttons
- ✓

Module 12: Python SQL Database Access

- ✓ Introduction
- ✓ Installation
- ✓ DB Connection
- ✓ Creating DB Table
- ✓ INSERT, READ, UPDATE, DELETE operations
- ✓ COMMIT & ROLLBACK operation
- ✓ handling Errors

Module 13: Network Programming

- ✓ **Introduction**
- ✓ **A Daytime Server**
- ✓ **Clients and Servers**
- ✓ **The Client Program**
- ✓ **The Server Program**

Module 14: Date and Time

- ✓ Sleep
- ✓ Program execution time
- ✓ More methods on date/time

Module 15: Few more topics in-detailed

- ✓ **Filter**
- ✓ **Map**
- ✓ **Reduce**
- ✓ **Decorators**
- ✓ **Frozen set**
- ✓ **Collections**

Module 16: Regular Expression

- ✓ **Split**
- ✓ **Working with special characters, date, emails**
- ✓ **Quantifiers**
- ✓ **Match and find all**
- ✓ **character sequence and substitute**
- ✓ **Search method**



Module 17: Threads ESSENTIAL

- ✓ Class and threads
- ✓ Multi-threading
- ✓ Synchronization
- ✓ Treads Life cycle
- ✓ use cases

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