

# **P2D ITDebuggers Private Limited**

## **Python for Data Science**

## **Foundations**

#### **Basics of Python**

Install Python and an IDE. Learn about Python syntax, variables, and basic data types.

#### **Control Flow and Functions**

Understand if statements, loops, and functions. Practice solving simple problems using control flow and functions.

#### **Lists and Tuples**

Explore lists and tuples. Learn basic operations on these data structures.

#### **Dictionaries and Sets**

Understand dictionaries and sets. Practice using these data structures.

## **Intermediate Python**

#### File Handling

Learn how to read and write files in Python. Explore different file formats (text files, CSV, JSON).

# **Advanced Python**

#### **Exception Handling**

Learn about try, except, and finally blocks. Handle exceptions to make your code more robust.

#### **Regular Expressions**

Understand the basics of regular expressions. Practice using regular expressions in Python.

### **Modules and Packages**

Explore how to use modules and create your own packages. Understand the concept of namespaces in Python.

#### **Object-Oriented Programming (OOP)**

Understand the basics of OOP: classes and objects. Learn about inheritance, encapsulation, and polymorphism.

# **GUI (Graphical User Interface)**

