Python

Introduction to Python

1.Introduction to Python
2.Python - The Universal Language

Getting Started

1.Installing Python
2.Python - *Hello World*
3.Using the Interpreter
4.iPython - a better Python interpreter

Language Basics

1.Types - Dynamic v/s Static Typing - tstrong v/s Weak Typing
2.Numbers
3.Strings
4.Unicode
5.Complex Types
6.Operators - Operator Overloading
7.Variables
8.Scopping And Expressions
9.Use of tabs and whitespaces as indent
10.Conditionals - for...else

Functions

1.The general syntax
2.Default values for arguments
3.Returning and receiving multiple values
4.Variable number of arguments - args, kwargs
5.Scope revisited

Collections

1.Primitive v/s Composite Types
2.Lists

3.Tuples
4.Maps (or Dictionaries)
5.Sets
6.Enums
7.Looping Techniques

Modularisation of code

1.Global and Local namespace
2.Introduction of modules
3.Using modules
4.Creating your own modules
5.Working with third-party library

Regular Expressions

1.Matching v/s Searching
2.Regular Expression Objects
3.Match Objects
4.Examples

Files and Directories

1.Reading Files
2.Writing Files
3.Handling I/O Errors
4.Higher lavel file operations
5.File and Directory comparisons

Exception Handling

1.Exception handling basics
2.try...except
3.Examples

Socket Programming

1.Introduntion to networking concepts
2.Creating a socket
3.Using a socket
4.Disconnecting
5.Non-blocking sockets

SQL Database

1.Introduction to OOP
2.Classes and objects
3.Instance methods and data
4.Initialization of objects
5.Inheritance
6.Multiple and Multilevel Inheritance
7.Method overriding
8.Classes and Type