Python Full Stack

Course Duration: 120 Hours

MODULE 1: HTML

- Introduction to HTML
- Basic Structure of HTML
- HTML Editors
- HTML Tags
- Paragraphs, Headings and Text
- Formatting Tags
- HTML Lists
- HTML Images
- HTML Tables
- HTML Forms
- HTML Media

MODULE 2: CSS

- Introduction to CSS
- Types of CSS
- CSS Properties, Selectors and Values
- Applying CSS to HTML
- CSS Colours
- CSS Box Model, Margins, Padding, Borders
- CSS Text & Font Formats
- CSS Advanced Topics (Effects, Animations, Shadows, Etc.,)

MODULE 3: JAVASCRIPT

- Introduction to JavaScript
- How to Apply JavaScript
- Displaying Output in JavaScript
- Understanding JavaScript Syntax
- Variables & Datatypes
- Operators
- Math and String Manipulations
- Conditional and Looping Statements
- Functions
- Validations
- Events

MODULE 4: BOOTSTRAP

- Introduction to Bootstrap
- Bootstrap Setup
- Bootstrap Containers
- Bootstrap Grids
- Bootstrap Tables
- Bootstrap Buttons, Navbars, Alerts
- Bootstrap Carousel
- Bootstrap Forms

MODULE 5: ANGULARJS

- Introduction to Angular
- Environment Setup
- Installing Angular CLI
- Directory Structure of Angular
- Angular Fundamentals
- Angular Building Blocks
- Angular Data Binding
- String Interpolation
- Directives and Pipes
- Forms
- Approaches (Driven & Reactive)
- Validators
- Routing

MODULE 6: INTRODUCTION TO PYTHON

- What is Python and history of Python
- Unique features of Python
- Python-2 and Python-3 differences
- Install Python and Environment Setup
- First Python Program
- Python Identifiers, Keywords and Indentation
- Comments and document interlude in Python
- Command-line arguments
- Getting User Input
- Python Data Types
- What are variables?
- Python Core objects and Functions
- Number and Maths
- Assignments

MODULE 7: CONTROL STATEMENTS

- if-else
- if-else if-else
- while loop
- for loop
- break
- continue
- assert
- pass
- return

MODULE 8: LIST, RANGES TUPLES IN PYTHON

- Introduction
- Lists in Python
- More about Lists
- Understanding Iterators
- Generators, Comprehensions and Lambda Expressions
- Generators and Yield
- Next and Ranges
- Understanding and using Ranges
- More About Ranges
- Ordered Sets with tuples

MODULE 9: PYTHON DICTIONARIES AND SETS

- Introduction to the section
- Python Dictionaries
- More On Dictionaries
- Sets
- Python Sets Examples
- Input and Output in Python
- Reading and writing text files
- writing Text Files
- Appending to Files and Challenge
- Writing Binary Files Manually
- Using Pickle to Write Binary Files

MODULE 10: PYTHON BUILT IN FUNCTION

- Python user defined functions
- Python packages functions
- Defining and calling Function The anonymous Functions
- Loops and statement in Python
- Python Modules & Packages
- Python Object Oriented
- Overview of OOP
- The self-variable
- Constructor
- Types Of Variables
- Namespaces
- Creating Classes and Objects
- Inheritance
- Types of Methods
- Instance Methods
- Static Methods
- Class Methods
- Accessing attributes
- Built-In Class Attributes
- Destroying Objects
- Abstract classes and Interfaces
- Abstract Methods and Abstract class
- Interface in Python
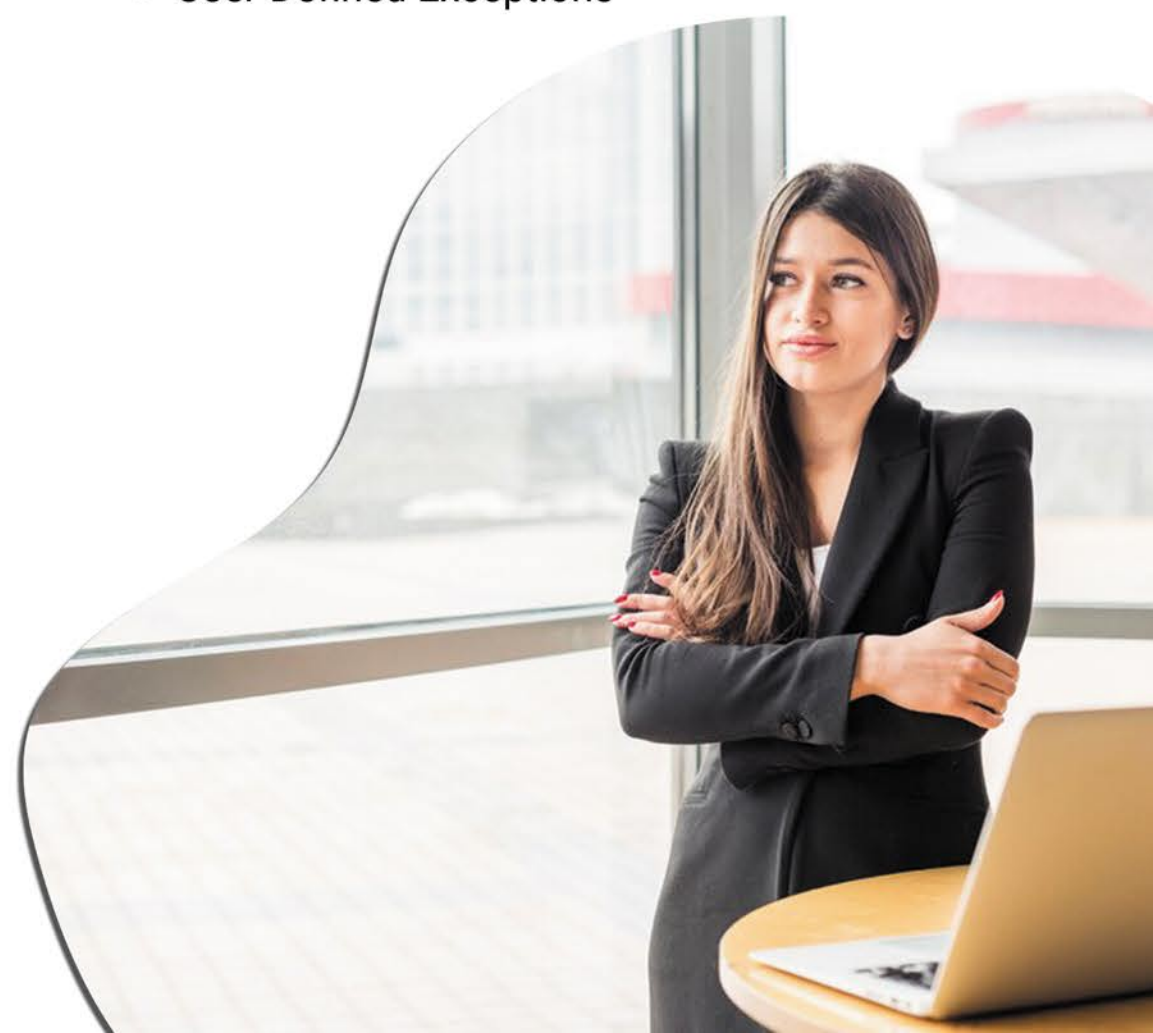- Abstract classes and Interfaces

MODULE 11: EXCEPTIONS

- Errors in Python
- Compile-Time Errors
- Runtime Errors
- Logical Errors
- What is Exception?
- Handling an exceptiontry....except...elsetry -finally clause
- Argument of an Exception
- Python Standard Exceptions
- Raising an exceptions
- User-Defined Exceptions

MODULE 12: PYTHON REGULAR EXPRESSIONS

- What are regular expressions?
- The match Function
- The search Function
- Matching vs searching
- Search and Replace
- Extended Regular Expressions
- Wildcard

MODULE 13: DJANGO WEB FRAMEWORK IN PYTHON

- Django overview
- Creating a project
- Apps life cycle
- Admin interface
- Creating views
- URL Mapping
- Template system
- Models
- Form details
- Testing
- Page redirection
- Sending Emails
- Deploying Django framework
- Form processing
- File uploading
- Cookie handling
- Sessions, caching and comments
- RSS, AJAX
- Sending Emails
- GitHub, Bigbucket

MODULE 14: DATABASE

- Database Handling With Mysql
- Python Mysql Database Access
- Create Database Connection
- DML And DDL Operations With Databases
- Performing Transactions
- Handling Database Errors
- Disconnecting Database
- Database Handling With Mongodb
- Sql Vs Nosql
- Mongodb
- Pymongo
- Establishing A Connection
- Accessing Database
- DML And DDl Operations

MODULE 15: WEB SERVICES

- Creating REST Services using Django
- Get/Post/Patch/Update/Delete
- Postman Applications
- Testing REST API