

PYTHON		
S.No	MODULE NMAE	COURSE CONTENT
1	INTRODUCTION	<ul style="list-style-type: none"> • What is PYTHON? • WHY PYTHON? • History of Python • Features of Python. • Why Python is General Language?/HLL? • Limitations of Python
2	Python software Installation and Introduction	<ul style="list-style-type: none"> • Python Distributions • Download & Python Installation Process in Windows • Online Python IDLE • Python Real-time IDEs , PyCharm • Python Identifiers(Rules and Regulations) • Reserved words and Keywords • Basic Data types in Python(Sequential, non-sequential, ordered, non-ordered)
3	Language Initials	<ul style="list-style-type: none"> • Python Identifiers(Rules and Regulations) • Reserved words and Keywords • Basic Data types in Python(Sequential, non-sequential, ordered, non-ordered)
4	Data Type and Data Structure	<p>Lists</p> <ul style="list-style-type: none"> -List Basics -List Operations -List Comprehensions / Slicing -List Methods <p>Strings</p> <ul style="list-style-type: none"> - String Basics - String Literals - String Operations - String Comprehensions / Slicing - String Methods <p>Dictionary</p> <ul style="list-style-type: none"> - Dictionaries Basics - Operations - Comprehensions - Dictionaries Methods <p>Tuple</p> <ul style="list-style-type: none"> - Tuples Basics - Tuples Comprehensions / Slicing - Tuple Functions - Tuple Methods <p>Set</p> <ul style="list-style-type: none"> - Sets Basics - Sets Operations - Union - Intersection - Difference and Symmetric Difference <p>Type Casting</p>
5	Operators	<ul style="list-style-type: none"> • Arithmetic Operators • Comparison Operators • Assignment Operators • Bitwise Operators • Python Assignment Operators • Logical Operators • Membership Operators • Identity Operators • Ternary Operator • Difference between "is" vs "==" • Compund Operators

6 Flow Control Control Statement

- For Loops
 - Range function
 - For loop
 - Nested For Loops
 - Pattern-Based Questions
 - Break
 - Continue
 - Pass
 - Loop else
- While Loop
 - While loop logic building
 - Series based Questions
 - Break
 - Continue
 - Nested While Loops
 - Pattern-Based Questions
 - pass
 - Loop else
- Conditional Statements
 - If Else
 - If
 - Else
 - El If (else if)
 - If Else Ternary Expression

7 Function

- Definition
- Call
- Function Arguments
- Default Arguments
- Docstrings
- Scope
- Special functions Lambda, Map, and Filter
- Recursion
- Functional Programming and Reference Functions

8 OOps	<ul style="list-style-type: none"> •Object oriented programming, Classes and Objects, How to define class in python •Types of variables – <ul style="list-style-type: none"> • instance variables, • class variables. •Types of methods – <ul style="list-style-type: none"> • instance methods, • class method, • static method, • Object initialization, •'self' reference variable, • 'cls' reference variable, •Property () object theory •Principles of OOP – <ul style="list-style-type: none"> •Encapsulation, •Abstraction (Data Hiding) •Creating object properties using setaltr, getaltr functions, Inner classes,Class re-usability •Inheritance – single, multi-level, multiple, hierarchical and hybrid inheritance and Diamond inheritance, Method resolution order (MRO) •super () •Constructors in inheritance •Object class •Duck typing interview question •What is polymorphism •Runtime polymorphism •Overriding <ul style="list-style-type: none"> •i) Method overriding •ii) Constructor overriding •Method overriding in Multiple inheritance and Hybrid Inheritance •Overloading <ul style="list-style-type: none"> •i) Method Overloading •ii) Constructor Overloading •iii) Operator Overloading 	
9 Python Module and Package	<ul style="list-style-type: none"> - Different types of modules - Inbuilt modules - OS - Sys - Statistics - Math - String - Random - Create your own module - Building Packages - Build your own python module and deploy it on pip - What is PIP? - Installation - PIP Freeze - Creating Your Own Package - Upload it on PIP 	
10 File Handling	<ul style="list-style-type: none"> - File Basics - Opening Files - Reading Files - Writing Files - Editing Files - Working with different extensions of file - With Statements 	
11 Exception Handling	<ul style="list-style-type: none"> - Common Exceptions - Exception Handling - Try - Except - Try except else - Finally - Raising exceptions - Assertion - Block 	

	12 Regular Expression	<ul style="list-style-type: none"> - Basic RE functions - Patterns - Meta Characters - Character Classes 	
SELENIUM			
<u>S.No</u>	MODULE NMAE	COURSE CONTENT	
	1 SELENIUM	<ul style="list-style-type: none"> •Downloading WebDriver Jars and configuring in Pycharm •The architecture of Selenium Webdriver •Browser versions with WebDriver •Drivers for Firefox, IE, Chrome, Edge • HTML,CSS Knowledge •Locators & Xpath :- Inspect elements from the browser , Relative & Absolute Xpath 	
		<ul style="list-style-type: none"> --What are locators? --Types of Locators --Types XPath --Writing XPath --Built-in functions in XPath --Handling Dynamic elements using XPath --WebDriver commands --Browser commands --Get commands --Switching commands --Navigation commands --Conditional commands --Implicit, Explicit and Fluent Waits --Handling Web Elements --Textbox/Input box --Links --Radio Button/Checkbox --Dropdown box/Combo box --Multi Select dropdown --List box --Calendar/Date Picker --Web Links --HTML frames/Iframes --Web/HTML Tables --Mouse actions using Actions class --Mouseover --Mouse double click --Mouse right clicks --Drag and Drop --Handling Slider/scroll bar 	
		<ul style="list-style-type: none"> --Handling cookies --Headless browser testing --Capturing Screenshots --Data Driven Testing in Selenium --What is data driven testing? --Data Driven Tests using multiple sources --Excel/csv files 	

PYTEST		
<u>S.No</u>	MODULE NMAE	COURSE CONTENT
	1 Pytest Framework	<ul style="list-style-type: none"> --Pytest - Introduction --Pytest - Environment Setup --Identifying Test files and Functions --Pytest - Starting With Basic Test --Pytest - File Execution --Execute a Subset of Test Suite --Substring Matching of Test Names --Pytest - Grouping the Tests --Pytest - Fixtures --Pytest - Conftest.py --Pytest - Parameterizing Tests --Pytest Hooks --Pytest Parallel testing --Prioritizing Test --Annotation --Pytest - Xfail/Skip Tests --Stop Test Suite after N Test Failures --Pytest - Run Tests in Parallel --Test Execution Results in XML
POM		
<u>S.No</u>	MODULE NMAE	COURSE CONTENT
	1 POM (Page Object Model)	<ul style="list-style-type: none"> --Extent Reports, Page Object Model --Generating Extent Reports --Page Object Model – Creating Page objects
ROBOT		
<u>S.No</u>	MODULE NMAE	COURSE CONTENT

1 Robot Framework

- Robot Framework
- Environment Setup
- Unix and Linux Installation
- Introduction to Ride
- First Test Case Using Ride
- Writing and Executing Test Cases
- Keyword and Data Driven Test Cases
- Browsers Using Selenium Library
- Textbox
- Radio Button
- Checkbox
- Dropdown
- Keywords
- Variables
- Command Line
- Setup And Teardown
- Built-In Library
- External Database libraries
- Testing Login Page Using Robot Framework