



Building Trust &
Careers

FRONTLINES EDUTECH PRIVATE LIMITED

ISO 21001:2018

PYTHON FULL STACK

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ABOUT US

Frontlines Edutech Private Limited envisions bridging the gap between academia and industry. We understand the pain of unemployment and are trying to wipe off the words of impossible and unemployment from the brains of youth by training and turning them into diamonds. We provide tailor-made, hands-on, and need-based programs on par with industry standards.

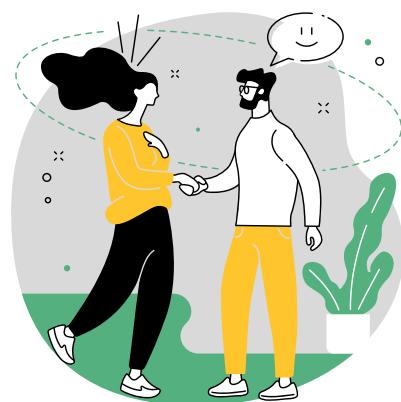
We believe that the youth of today is the future of tomorrow. And so our courses are tutored by experts from top industries who are passionate about mentoring the youth. Since its inception, Frontlines Edutech has earned the trust and gained recognition from thousands of learners across the state.



WHO SHOULD APPLY?

TALK TO US TODAY!

- Anyone from an IT or Non-IT background can apply
- Students
- Experts
- Those wishing to enroll in this course will be required to register through our website www.frontlinesedutech.com.





WHY US

We are Success Trainers, Mentors, and Motivators with a passion for helping you be the best. We are warm and wise, positive and proactive, caring and daring, fun and focused. Our intention is always for your highest good and greatest growth. We make the learning just as enjoyable as it is powerful.

1 Industry Standard Training

2 Solution-Focused

3 Results-Driven

4 Affordable

5 Transparent

6 Experience

7 Quality

We make a BIG difference



WHY LEARN THIS COURSE?

- This course is for those who want to start their coding journey, whether a beginner or an expert.
- No prior programming knowledge is required.
- This course covers basics to advanced concepts straightforwardly and systematically.
- We take special care of Non-IT students
- Easy to learn
- Beginner Friendly
- The diversity of our learners adds richness to course discussions and interactions.





DELIVERABLES



FROM SCRATCH TO
MASTER LEVEL TRAINING



DAILY ASSIGNMENTS



INTERVIEW GUIDANCE



Q&A SESSIONS



ON-DEMAND VIDEO
COURSE CONTENT



RESUME BUILDING



LINKEDIN PROFILE BUILDING



CERTIFICATION OF COMPLETION



PLACEMENT UPDATES



DOWNLOADABLE RESOURCES





PYTHON SYLLABUS

Module 1: Introduction to Languages

- 1.What is Language?
- 2.Types of languages
- 3.What is Scripting Language?
- 4.Types of Script
- 5.Programming Languages v/s Scripting Languages

Module 2: Introduction to Python

- 1.What is Python?
- 2.WHY PYTHON?
- 3.What is PSF?
- 4.Python implementations
- 5.Python applications
- 6.Python versions
- 7.PYTHON IN REALTIME INDUSTRY
- 8.Difference between Python 2.x and 3.x
- 9.Difference between Python 3.7 and 3.8
- 10.Software Development Architectures

Module 3: Python Software's

- 1.Download & Python Installation Process Online Python IDLE
- 2.Python Real-time IDEs like Spyder, Jupyter Note

Module 4: Python Language Fundamentals

1. Python Implementation Alternatives/Flavors
2. Keywords
3. Identifiers
4. Constants / Literals
5. Data types
6. Python VS JAVA
7. Python Syntax

Module 5: Different Modes of Python

- 1.Comments in Python

2. Python file extensions
3. Setting Path in Windows
4. Edit and Run python program without IDE
5. Edit and Run python program using IDEs
6. INSIDE PYTHON
7. Programmers View of Interpreter
8. Inside INTERPRETER
9. What is Byte Code in PYTHON?

Module 6: Python variables

- 1.bytes Data Type
- 2.byte array
- 3.String Formatting in Python
- 4.Math, Random, Secrets Modules
- 5.Introduction
- 6.Initialization of variables
- 7.Local variables
- 8.Input and Output operations
- 9.Data conversion functions – int(), float(), complex(), str(), chr(), ord()

Module 7: Operators

- 1.Arithmetic Operators
- 2.Comparison Operators
- 3.Python Assignment Operators
- 4.Logical Operators
- 5.Bitwise Operators
- 6.Shift operators
- 7.Membership Operators
- 8.Identity Operators
- 9.Ternary Operator
- 10.Operator precedence
- 11.Difference between "is" vs "=="

Module 8: Input & Output Operators

1. Print



- 2. Input
- 3. Command line arguments

Module 9: Control Statements

- 1. Conditional control statements
 - a. If
 - b. If-else
 - c. If-elif-else
 - d. Nested-if
- 2. Loop control statements
 - a. for
 - b. while
 - c. Nested loops
- 3. Branching statements
 - a. Break
 - b. Continue
 - c. Pass
 - d. Return

Module 10: Data structures or Collections

- 1. Introduction
- 2. Importance of Data structures
- 3. Applications of Data structures
- 4. Types of Collections
 - a. Sequence
 - i. Strings, List, Tuple, range
 - b. Non sequence
 - i. Set, Frozen set, Dictionary
- 5. Strings
 - a. What is string
 - b. Representation of Strings
 - c. Processing elements using indexing
 - d. Processing elements using Iterators
 - e. Manipulation of String using Indexing and Slicing
 - f. String operators
 - g. Methods of String object
 - h. String Formatting

- i. String functions
- j. String Immutability

Module 11: List Collection

- 1. What is List
- 2. Need of List collection
- 3. Different ways of creating List
- 4. List comprehension
- 5. List indices
- 6. Processing elements of List through Indexing and Slicing
- 7. List object methods
- 8. List is Mutable
- 9. Mutable and Immutable elements of List
- 10. Nested Lists
- 11. List_of_lists
- 12. Hardcopy, shallowCopy and DeepCopy
- 13. zip() in Python
- 14. How to unzip?
- 15. Python Arrays
- 16. Case studies

Module 12: Tuple collection

- 1. What is tuple?
- 2. Different ways of creating Tuple
- 3. Method of Tuple object
- 4. Tuple is Immutable
- 5. Mutable and Immutable elements of Tuple
- 6. Process tuple through Indexing and Slicing
- 7. List v/s Tuple
- 8. Case studies

Module 13: Set collection

- 1. What is set?
- 2. Different ways of creating set
- 3. Difference between list and set
- 4. Iteration Over Sets
- 5. Accessing elements of set



- 6. Python Set Methods
- 7. Python Set Operations
- 8. Union of sets
- 9. functions and methods of set
- 10. Python Frozen set
- 11. Difference between set and frozenset ?
- 12. Case study

Module 14: Dictionary collection

- 1.What is dictionary?
- 2.Difference between list, set and dictionary
- 3.How to create a dictionary?
- 4.PYTHON HASHING?
- 5.Accessing values of dictionary
- 6.Python Dictionary Methods
- 7.Copying dictionary
- 8 Updating Dictionary
- 9.Reading keys from Dictionary
- 10.Reading values from Dictionary
- 11.Reading items from Dictionary
- 12.Delete Keys from the dictionary
- 13.Sorting the Dictionary
- 14.Python Dictionary Functions and methods
- 15.Dictionary comprehension

Module 15: Functions

- 1.What is Function?
- 2.Advantages of functions
- 3.Syntax and Writing function
- 4.Calling or Invoking function
- 5.Classification of Functions
 - a.No arguments and No return values
 - b.With arguments and No return values
 - c.With arguments and With return values

- b. No arguments and With return values
- e. Recursion
- 6. Python argument type functions :
 - a. Default argument functions
 - b. Required(Positional) arguments function
 - c. Keyword arguments function
 - d. Variable arguments functions
- 7. 'pass' keyword in functions
- 8. Lambda functions/Anonymous functions
 - a. map()
 - b. filter()
 - c. reduce()
- 9. Nested functions
- 10. Non local variables, global variables
- 11. Closures
- 12. Decorators
- 13. Generators
- 14. Iterators
- 15. Monkey patching

Module 16: Python Modules

- 1.Importance of modular programming
- 2.What is module
- 3.Types of Modules – Pre defined, User defined.
- 4.User defined modules creation
- 5.Functions based modules
- 6.Class based modules
- 7.Connecting modules
- 8.Import module
- 9.From ... import
- 10.Module alias / Renaming module
- 11.Built In properties of module

Module 17: Packages

- 1.Organizing python project into packages
- 2.Types of packages – pre defined, user defined.
- 3.Package v/s Folder



- 4. __init__.py file
- 5. Importing package
- 6. PIP
 - a. Introduction to PIP
 - b. Installing PIP
 - c. Installing Python packages
 - d. Un installing Python packages

Module 18: OOPs

- 1. Procedural v/s Object oriented programming
- 2. Principles of OOP – Encapsulation , Abstraction (Data Hiding)
- 3. Classes and Objects
- 4. How to define class in python
- 5. Types of variables – instance variables, class variables.
- 6. Types of methods – instance methods, class method, static method
- 7. Constructors.
- 8. Object initialization
- 9. 'self' reference variable
- 10. 'cls' reference variable
- 11. Access modifiers – private(__) , protected(_), public
- 12. AT property class
- 13. Property() object
- 14. Creating object properties using setattr, getattr functions
- 15. Encapsulation(Data Binding)
- 16. What is polymorphism?
 - a. Overriding
 - i. Method overriding
 - ii. Constructor overriding
 - b. Overloading
 - i. Method Overloading
 - ii. Constructor Overloading
 - iii. Operator Overloading
- 17. Class re-usability
- 18. Composition

- 19. Aggregation
- 20. Inheritance – single , multi level, multiple, hierarchical and hybrid inheritance and Diamond inheritance
- 21. Constructors in inheritance
- 22. Object class
- 23. super()
- 24. Runtime polymorphism
- 25. Method overriding
- 26. Method resolution order(MRO)
- 27. Method overriding in Multiple inheritance and Hybrid Inheritance
- 28. Duck typing
- 29. Concrete Methods in Abstract Base Classes
- 30. Difference between Abstraction & Encapsulation
- 31. Inner classes
- 32. Introduction
- 33. Writing inner class
- 34. Accessing class level members of inner class
- 35. Accessing object level members of inner class
- 36. Local inner classes
- 37. Complex inner classes
- 38. Case studies

Module 19: Exception Handling & Types of Errors

- 1. What is Exception?
- 2. Why exception handling?
- 3. Syntax error v/s Runtime error
- 4. Exception codes – AttributeError, ValueError, IndexError, TypeError...
 - a. Handling exception – try except block
 - b. Try with multi except
 - c. Handling multiple exceptions with single except blockr



- 5. Finally block
 - a. Try-except-finally
 - b. Try with finally
 - c. Case study of finally block
- 6. Raise keyword
 - a. Custom exceptions / User defined exceptions
 - b. Need to Custom exceptions
- 7. Case studies

Module 20: Regular expressions

- 1.Understanding regular expressions
- 2.String v/s Regular expression string
- 3."re" module functions
- 4.Match()
- 5.Search()
- 6.Split()
- 7.Findall()
- 8.Compile()
- 9.Sub()

Module 21: Python Logging

- 1.Logging Levels
- 2.implement Logging
- 3.Configure Log File in over writing Mode
- 4.Timestamp in the Log Messages
- 5.Python Program Exceptions to the Log File
- 6.Requirement of Our Own Customized Logger

Module 22: Date & Time module

- 1.How to use Date & Date Time class
- 2.How to use Time Delta object
- 3.Formatting Date and Time
- 4.Calendar module
- 5.Text calendar
- 6.HTML calendar

Module 23: OS module

- 1.Shell script commands
- 2.Various OS operations in Python
- 3.Python file system shell methods
- 4.Creating files and directories
- 5.Removing files and directories
- 6Shutdown and Restart system
- 7.Renaming files and directories
- 8.Executing system commands

Module 24: Multi-threading & Multi Processing

- 1.Introduction
- 2.Multi tasking v/s Multi threading
- 3.Threading module
- 4.Creating thread – inheriting Thread class , Using callable object
- 5.Life cycle of thread
- 6.Single threaded application
- 7.Multi threaded application
- 8.Can we call run() directly?
- 9.Need to start() method
- 10.Sleep()
- 11.Join()
- 12.Synchronization - Lock class – acquire(), release() functions
- 13.Case studies

Module 25: Garbage collection

- 1.Introduction
- 2.Importance of Manual garbage collection
- 3.Self reference objects garbage collection
- 4.'gc' module
- 5.Collect() method
- 6.Threshold function
- 7.Case studies

Module 26: Python Data Base Communications(PDBC)

- 1.Introduction to DBMS applications
- 2.File system v/s DBMS



- 3. Communicating with MySQL
- 4. Python – MySQL connector
- 5. mysql.connector module
- 6. connect() method
- 7. Oracle Database
- 8. Install cx_Oracle
- 9. Cursor Object methods
- 10. execute() method

- 11. executeMany() method
- 12. fetchone()
- 13. fetchmany()
- 14. fetchall()
- 15. Static queries v/s Dynamic queries
- 16. Transaction management
- 17. Case studies

HTML SYLLABUS

Module 1: Web - Introduction

- 1. Introduction
- 2. What is Web & History of Web?
- 3. What is a web page? How does it work?
- 4. What a browser does?
- 5. What is W3C? The importance of W3C standards
- 6. Overview of the Internet
- 7. Overview of the World Wide Web (WWW)

Module 2: Internet Based Services

- 1. Email, SMTP MIME
- 2. TELNET FTP
- 3. What is HTTP & HTTPS
- 4. What is URL, URI & URN
- 5. What is Client & Web Server?
- 6. What is Hyperlink?
- 7. Types of Web Pages & Web Sites

Module 3: Introduction to HTML

- 1. What is HTML?
- 2. HTML Editors
- 3. HTML Versions
- 4. Features of HTML
- 5. Limitations of HTML
- 6. Introduction to TAGS
- 7. Types of Tags
- 8. Structure of HTML Document
- 9. HTML Comments

Module 4: HTML - Elements

- 1. <!DOCTYPE> HTML Version Info.
- 2. Head Section
 - a. <title>
 - b. <link>
 - c. <meta>
 - d. <style>
 - e. <script>

Module 5: HTML Special Characters or HTML Entities

- 1. ©
- 2. ™®
- 3. ‘&rsquo
- 4. “ ” ...!!

Module 6: HTML Colors

- 1. Hexadecimal Color Values
- 2. Color Values
- 3. Web Safe Colors
- 4. 16 Million Different Colors
- 5. HTML Color Names
- 6. Computing Color Codes

Module 7: Body Section

- 1. body tag
- 2. font tag
- 3. hr tag
- 4. paragraph Tag
- 5. marquee tag



6. pre tag

Module 8: HTML Presentational or Formatting Tags

- 1.bold
- 2.italic
- 3.strong
- 4.emphasis
- 5.striking
- 6.underline
- 7.superscript
- 8.subscript
- 9.blockquote
- 10.big
- 11.small
- 12.center
- 13.quotes
- 14.horizontal Rule
- 15.del
- 16.ins
- 17.nobr
- 18.html headings

Module 9: HTML Images

- 1.Web image formats
- 2.How images are used in web design
- 3.The image tag
- 4.Clickable images
- 5.Image Links
- 6.Images types

Module 10: HTML - Links

- 1.The anchor tag
- 2.Types of links
- 3.Internal Links & External Links
- 4.Text Links
- 5.Picture Links
- 6.Local Links
- 7.Email links

Module 11: HTML - Tables

- 1.border
- 2.Headings in a Table
- 3.Empty Cells in a Table
- 4.Declaring width & height
- 5.Cellspadding & Cellspacing
- 6.Bgcolor & caption tag
- 7.Colspan and Rowspan
- 8.Nesting tables
- 9.Alignment & Rules Attributes

Module 12: HTML - Lists

- 1.Making Unordered lists
- 2.Making Ordered lists
- 3.Making Definition lists

Module 13: HTML-Frames

- 1.Frameset
- 2.Frame
- 3.Advantages of Frames
- 4.Disadvantages of Frames
- 5.Frame Errors
- 6.noframe
- 7.Iframe tag

Module 14: HTML "Computer Output" Tags

- 1.Code
- 2.Kbd
- 3.Samp
- 4.Var
- 5.pre

Module 15: HTML Citations, Quotations, and Definition Tags

- 1.abbr
- 2.address
- 3.bdo
- 4.blockquote
- 5.q
- 6.cite



- 7. dfn
- 8. span
- 9. div

Module 16: HTML Forms

- 1. Introduction to forms
- 2. Forms
- 3. Input
- 4. Text Fields
- 5. Password
- 6. Reset
- 7. Submit
- 8. Checkboxes
- 9. Radio
- 10. Select
- 11. Hidden Fields
- 12. Upload
- 13. Text areas
- 14. Legend
- 15. fieldset
- 16. Small Project on Forms

Module 17: Introduction HTTP

- 1. HTTP Overview
- 2. Architecture of HTTP
- 3. HTTP Methods
- 4. GET vs. POST
- 5. http status messages

Module 18: Web Hosting (Live Web Site)

- 1. What is Web Hosting?
- 2. Hosting Types
- 3. Free Hosting
- 4. Shared Hosting
- 5. Virtual Dedicated Hosting:
- 6. Dedicated Hosting
- 7. Collocated Hosting
- 8. What is Domain Name?
- 9. General Domains
- 10. Top Level Domains
- 11. How to Register a Domain Name?

Module 19: Introduction to Advanced HTML (HTML5)

- 1. HTML4 Drawbacks
- 2. Introduction to HTML5
- 3. New Features and groups
- 4. Why HTML5?
- 5. Power of HTML5
- 6. Structure of HTML5 Document

Module 20: HTML5 New Elements (More meaningful elements)

- 1. New Semantic/Structural Elements
- 2. <article>
- 3. <aside>
- 4. <bdi>
- 5. <bdo>
- 6. <command>
- 7. <details>
- 8. <summary>
- 9. <figure>
- 10. <figcaption>
- 11. <footer>
- 12. <header>
- 13. <nav>
- 14. <ruby>
- 15. <rt>
- 16. <rp>
- 17. <section>
- 18. <wbr>

Module 21: HTML5 New inline elements

- 1. <meter>
- 2. <mark>
- 3. <progress>
- 4. <time>

Module 22: HTML5 Input Types (More meaningful elements)

- 1. What is a Webform?(Web Forms 2.0)
- 2. Introduction
- 3. color(color chooser)



4. date (popup calendar)
5. datetime (datetime chooser)
6. datetime-local (datetime chooser)
7. email (Email Entry)
8. month (month year chooser)
9. number (spinner)
10. range (slider)
11. search (Search Query Input)
12. tel Telephone Input)
13. time (TimeSelector)
14. url (URL Entry)
15. week (WeekChooser)

Module 23: HTML5 Canvas HTML5-Graphics (2D and 3D Effects)

1. Introduction
2. What is Canvas?
3. Create a Canvas
4. Canvas Coordinates
5. Canvas – Paths (lines, circles)
6. Canvas - Text
7. Canvas - Gradients
8. Canvas – Images
9. createLinearGradient
10. createRadialGradient

Module 24: HTML5 SVG HTML5-Graphics (2D and 3D Effects)

1. Introduction
2. What is SVG?
3. SVG Advantages
4. Differences Between SVG and Canvas
5. Comparison of Canvas and SVG
6. Why SVG?
7. SVG Shapes

8. Rectangle
9. Circle
10. Ellipse
11. Line
12. Polyline
13. Polygon
14. Path

Module 25: HTML5 Multimedia (playing video and audio is easier than ever)

1. Introduction
2. What is Multimedia?
3. Browser Support
4. Multimedia Formats
5. Video Formats
6. Sound Formats
7. What is Ogg format?

Module 26: HTML5 Video (playing video and audio is easier than ever)

1. Introduction
2. Video on the Web
3. Video with JS
4. How It Works?
5. Video Formats and Browser Support
6. HTML5 Video Tags

Module 27: HTML5 Audio (playing video and audio is easier than ever)

1. Introduction
2. Audio With JS
3. Audio on the Web
4. How It Works?
5. Audio Formats and Browser Support
6. HTML5 Audio Tags



CSS SYLLABUS

Module 1: Introduction to CSS

1. Introduction
2. What is CS
3. Why CSS(Cascading Style Sheets)
4. Syntax
5. Advantages
6. Limitations

Module 2: Types of Style Sheets

1. Inline style
2. Internal style sheet
3. External style sheet

Module 3: Types of Selectors

1. Tag or Type
2. Global
3. Class
4. ID
5. Grouped
6. Descendant

Module 4: Background Properties

1. background-color
2. background-image
3. background-repeat
4. background-attachment
5. background-position

Module 5: Font Properties

1. font-family
2. color
3. font-size
4. font-style
5. font-variant
6. font-weight

Module 6: Text Properties

1. letter-spacing
2. Word-spacing

3. line-height
4. text-align
5. text-decoration
6. text-indent
7. text-transform
8. vertical-align
9. White-space

Module 7: Links

- 1.a:link
- 2.a:visited
- 3.a:hover
- 4.a:active

Module 8: Custom Cursors

- 1.Cursor Styles
- 2.Custom Cursors
- 3.Using Custom Cursors

Module 9: CSS Lists

- 1.List
- 2.Different List Item Markers
- 3.An Image as The List Item Marker
- 4.Cross browser Solution
- 5.List - Shorthand property

Module 10: CSS Tables

- 1.Table Borders
- 2.Collapse Borders
- 3.Table Width and Height
- 4.Table Text Alignment
- 5.Table Padding
- 6.Table Color

Module 11: Box Model

- 1.Border
- 2.outline
- 3.margin
- 4.padding



Module 12: Advanced Cascading Style Sheets

- 1. Dimension
- 2. Display
- 3. Positioning
- 4. Floating
- 5. Pseudo-classes
- 6. Pseudo-element
- 7. Navigation Bar
- 8. Image Gallery
- 9. Image Opacity
- 10. Image Sprites
- 11. Media Types

Module 13: Borders

- 1. Introduction
- 2. border-radius
- 3. box-shadow
- 4. border-image

Module 14: CSS3 Backgrounds

- 1. Introduction
- 2. background-size
- 3. background-origin
- 4. background-clip

Module 15: CSS3 Text Effects

- 1. Introduction
- 2. text-shadow
- 3. word-wrap
- 4. word-break
- 5. CSS3 hanging-punctuation

Module 16: CSS3 Fonts

- 1. Introduction
- 2. @font-face Rule
- 3. font-stretch
- 4. font-weight
- 5. font-style

Module 17: CSS3 2D Transforms

- 1. Introduction
- 2. How does it Work?
- 3. Browser Support
- 4. 2D Transforms
- 5. translate()
- 6. rotate()
- 7. scale()
- 8. skew()
- 9. matrix()

Module 18: CSS3 Transitions

- 1. Introduction
- 2. How does it work?
- 3. transition-property
- 4. transition-duration
- 5. transition-delay

Module 19: CSS3 Animations

- 1. Introduction
- 2. CSS3 @keyframes Rule
- 3. Browser Support
- 4. Animation, animation-duration

Module 20: CSS3 Multiple Columns

- 1. Introduction
- 2. column-count
- 3. column-gap
- 4. column-rule
- 5. column-rule-color
- 6. column-rule-style
- 7. column-rule-width



JAVASCRIPT/ECMASCRIPT(ES6) SYLLABUS

Module 1: What is Scripting Language?

1. Advantages of Scripting Languages
2. Limitations of Scripting Languages
3. Types of Scripts
4. Difference between Scripting and Programming Langs.
5. What is JavaScript? Who Developed?
6. JS Versions history
7. Features of JavaScript
8. What JavaScript can Do?
9. JavaScript Syntax
10. Single and double quotes in JavaScript
11. document.write() and window.document.write()

Module 2: The History of JavaScript

1. Moving on from Static Web Pages
2. LiveScript, JavaScript, JScript, ECMAScript - What's in a Name?

Module 3: More In Java Script

1. Comments in JAVASCRIPT
2. Semicolons are Optional
3. JavaScript Place in HTML File
4. JavaScript Code
5. JavaScript Blocks
6. JavaScript Popup Boxes
7. JavaScript DataTypes
8. <noscript> tag

Module 4: Embedding JavaScript into Web pages

1. The <script> element
2. Where to place JavaScript in a Web Page

Module 5: Introducing JavaScript Variables

1. Variable Declaration and the Assignment Operator
2. JavaScript Variable Naming Conventions

Module 6: JavaScript Variable Types

1. The JavaScript typeof Operator

Module 7: JavaScript Operators

1. Assignment Operators
2. Arithmetic Operators
3. Unary Operators - Incrementing and Decrementing Variable Values
4. Comparison Operators
5. String Operators
6. Conditional Operators
7. Logical Operators

Module 8: JavaScript Flow Control and Looping

1. JavaScript Conditional Statements
2. The JavaScript if Statement
3. The JavaScript if ... else Statements

Module 9: JavaScript Looping Statements

1. JavaScript for loops
2. JavaScript For In
3. JavaScript while loops
4. JavaScript For Of
5. JavaScript do ... while loops
6. JavaScript switch Statements
7. Breaking & Continue
8. label Statements
9. JavaScript Type Conversion
10. Skipping Statements in Current Loop Iteration



Module 10: Understanding JavaScript Functions

1. Declaring and Calling a JavaScript Function
2. Passing Arguments to a Function
3. Returning a Value from a Function
4. Where to Place Function Declarations

Module 11: Events in JavaScript

1. abort
2. click
3. dblclick
4. error
5. focus
6. load
7. mouseout
8. mouseover
9. reset
10. select
11. submit
12. unload

Module 12: JavaScript - Errors & Exceptions Handling

1. try
2. catch
3. finally
4. throw
5. onerror()
6. JavaScript Hoisting

Module 13: More in Java Script

1. JavaScript Use Strict
2. The JavaScript this Keyword
3. JavaScript Arrow Function
4. JavaScript Classes
5. JavaScript Debugging
6. JavaScript Reserved Words

Module 14: JS HTML DOM

1. DOM Intro
2. DOM Methods
3. DOM Document
4. DOM Elements
5. DOM HTML
6. DOM CSS
7. DOM Animations
8. DOM Events
9. DOM Event Listener
10. DOM Navigation
11. DOM Nodes
12. DOM Collections
13. DOM Node Lists

Module 15: JavaScript Object Basics

1. Creating a Custom JavaScript Object
2. Creating and Using Object Instances
3. Extending JavaScript Objects

Module 16: JavaScript String Object

1. Creating a JavaScript String Object
2. JavaScript String Object Methods
3. JavaScript String Object Properties
4. JavaScript String Object Examples
5. Getting the length of a String Object
6. Setting String Object text Effects
7. Performing Conversions on String Objects
8. Manipulating Strings with the String Object

Module 17: JavaScript Date Object

1. Understanding System Time
2. Creating a JavaScript Date Object
3. Setting the Time and Date of the JavaScript Date Object
4. Reading the Date and Time from a JavaScript Date Object
5. UTC Time



6. Finding the Time Zone Offset and Getting Local Time

Module 18: JavaScript Math Object

1. JavaScript Math Object Methods
2. JavaScript Math Object Properties
3. Using JavaScript Math Object and Properties
4. Rounding and Truncating Numbers with the Math Object

Module 19: JavaScript Window Object

1. Referencing the JavaScript window Object
2. JavaScript window Object Properties
3. Opening Browser Windows using JavaScript
4. Closing Browser Windows using JavaScript
5. Moving and Resizing Windows
6. Changing Window Focus
7. Displaying Message Box Dialogs

Module 20: JavaScript Document Object

1. What is the JavaScript Document Object?
2. JavaScript Document Object Methods and Properties
3. Using the JavaScript Document Object
4. Writing text to a document
5. Writing Text to a document in a different Window
6. Changing the Document Title
7. Changing the Document Colors
8. Getting a List of Objects in a Document

Module 21: JavaScript Location Object

1. Loading a New URL into the Current Window

2. Reading the URL of the Current Window
3. Extracting Parts of the URL
4. JavaScript Location Object Methods

Module 22: JavaScript History Object

Module 23: JavaScript Regular Expressions

Module 24: JavaScript Arrays

1. What is a JavaScript Array
2. How to Create a JavaScript Array
3. Initializing the Elements of an Array
4. Accessing the Elements of a JavaScript Array
5. JavaScript Array Object Methods and Properties
6. JavaScript Array Sorting

Module 25: JavaScript Timeouts

1. Setting up a JavaScript Timeout
2. Cancelling a JavaScript Timeout
3. Setting up JavaScript Timeout to Repeat

Module 26: Building Forms with JavaScript

1. The JavaScript Form Object
2. Accessing Objects in a Form
3. The JavaScript Text Object
4. JavaScript Text Area Object
5. The JavaScript Button Object
6. JavaScript Check Boxes
7. JavaScript Radio Buttons
8. JavaScript Drop-down / Select Object
9. Obtaining the Current Selection from the JavaScript Select Object
10. JavaScript Password Object



BOOTSTRAP SYLLABUS

Module 1: Bootstrap

- 1.What is Bootstrap?
- 2.History of Bootstrap?
- 3.Why use Bootstrap?
- 4.What Bootstrap Package Includes?

Module 2: Download Bootstrap & Configuration

- 1.File structure
- 2.PRECOMPILED BOOTSTRAP
- 3.Basic Examples

Module 3: Bootstrap Grid System

- 1.What is a Grid?
- 2.What is Bootstrap Grid System?
- 3.MOBILE FIRST STRATEGY
- 4.Working of Bootstrap Grid System
- 5.Media Queries

Module 4: Grid options

- 1.Responsive column resets
- 2.Offset columns
- 3.Nesting columns
- 4.Column ordering

Module 5: Bootstrap CSS Overview

- 1.HTML5 doctype
- 2.Mobile First
- 3.Responsive images
- 4.Typography and links
- 5.Normalize
- 6.Containers

Module 6: Bootstrap Typography

- 1.Headings
- 2.INLINE SUBHEADINGS
- 3.Emphasis
- 4.Abbreviations
- 5.Addresses

- 6.Blockquotes

- 7.Lists

Module 7: Bootstrap Tables

- 1.Basic Table
- 2.Optional Table Classes
- 3.STRIPED TABLE
- 4.BORDERED TABLE
- 5.HOVER TABLE
- 6.CONDENSED TABLE
- 7.Contextual classes
- 8.Responsive tables

Module 8: Bootstrap Forms

- 1.Form Layout
- 2.VERTICAL OR BASIC FORM
- 3.INLINE FORM
- 4.HORIZONTAL FORM
- 5.Supported Form Controls
- 6.CHECKBOXES AND RADIOS
- 7.SELECTS
- 8.Form Control States
- 9.Form Control Sizing
- 10.Help Text

Module 9: Bootstrap Buttons

- 1.Button Size
- 2.Button State
- 3.DISABLED STATE
- 4.Button Tags

Module 10: Bootstrap Images

- 1..img-rounded
- 2..img-circle
- 3..img-thumbnail

Module 11: Bootstrap Helper Classes

- 1.Close icon
- 2.Carets



- 3. Quick floats
- 4. Center content blocks
- 5. Clearfix
- 6. Showing and hiding content
- 7. Screen reader content

Module 12: Bootstrap Responsive utilities

- 1.visible-xs
- 2.visible-sm
- 3.visible-md
- 4.visible-lg

Module 13: Bootstrap Glyphicons

- 1.What are Glyphicons?
- 2.Where to find Glyphicons?

Module 14: Bootstrap Dropdowns

- 1.Options
- 2.ALIGNMENT
- 3.HEADERS

Module 15: Bootstrap Button Groups

- 1.Basic Button Group
- 2.Button Toolbar
- 3.Button Size
- 4.Nesting
- 5.Vertical Buttongroup

Module 16: Bootstrap Button Dropdowns

- 1.Split Button Dropdowns
- 2.Button Dropdown Size
- 3.Dropup variation

Module 17: Bootstrap Input Groups

- 1.Basic Input Group
- 2.Input Group Sizing
- 3.Checkboxes and radio addons
- 4.Button addons
- 5.Buttons with dropdowns
- 6.Segmented buttons

Module 18: Bootstrap Navigation Elements

- 1.Tabular Navigation or Tabs
- 2.Pills Navigation
- 3.VERTICAL PILLS
- 4.Justified Nav
- 5.Disabled Links
- 6.Dropdowns
- 7.PILLS WITH DROPPDOWNNS

Module 19: Bootstrap Navbar

- 1.Default navbar
- 2.Responsive navbar
- 3.Forms in navbar
- 4.Buttons in navbar
- 5.Text in navbar
- 6.Non-nav links
- 7.Component alignment
- 8.Fixed to top
- 9.Fixed to bottom
- 10.Static top
- 11.Inverted navbar
- 12.Bootstrap Breadcrumb

Module 20: Bootstrap Pagination

- 1.Pagination
- 2.DEFAULT PAGINATION
- 3.STATESS
- 4.SIZING
- 5.Pager
- 6.ALIINED LINKS
- 7.STATESS
- 8.Bootstrap Labels

Module 21: Bootstrap Badges

- 1.Bootstrap Jumbotron
- 2.Bootstrap Page Header
- 3.Bootstrap Thumbnails

Module 22: Bootstrap Alerts

- 1.Dismissal Alerts
- 2.Links in Alerts



Module 23: Bootstrap Progress Bars

- 1.Default Progress Bar
- 2.Alternate Progress Bar
- 3.Striped Progress Bar
- 4.Animated Progress Bar
- 5.Stacked Progress Bar

Module 24: Bootstrap Media Object

- 1..media
- 2..media-list

Module 25: Bootstrap List Group

- 1.Adding Badges to List Group

- 2. Linking List Group Items
- 3. Add Custom Content to List Group

Module 26: Bootstrap Panels

- 1.Panel with heading
- 2.Panel with footer
- 3.Panel Contextual alternatives
- 4.Panel with tables
- 5.Panel with Listgroups

Module 26: Bootstrap Wells

- 1.well
- 2.Sizing

DJANGO SYLLABUS

Course Description

Django is PYTHON MVT web framework. It highly demands in the current market to build rapid web applications. It is suitable to develop large projects in less time. It is highly secured and scalable. Django is a Python based full stack web development framework means it is used to develop full-fledged websites in Python. It encourages rapid development and advocates pragmatic and clean code.

Why learn Django?

Django takes care of much of the hassle of Web development. It's free and open source. Django was designed to help developers take applications from concept to completion as quickly as possible.

Audience

Our Python Django tutorial is designed to help Any Graduates, Fresher, beginners and professionals. Learn web framework from scratch.

What are the pre-requisites?

PYTHON knowledge is mandatory to learn Django, web knowledge recommended like HTML, CSS and JavaScript. Bootstrap knowledge is added advantage.

Module 1: Introduction to Web

- 1.What is WEB?
- 2.Features of WEB?
- 3.Introduction to HTML & HTML5
- 4.Introduction to CSS & CSS3
- 5. Introduction to JAVASCRIPT
- 6. Introduction to Bootstrap
- 7. Creating Basic Web Pages
- 8. Introduction to SCRIPTS



Module 2: Python Django Web Framework

- 1.What is a Framework
- 2.Introduction to Django
- 3.Django – Design Philosophies
- 4.History of Django
- 5.Django Features
- 6.Environment setup
- 7.Web Server

Module 3: Getting Started with Django

- 1.Creating the first Project
- 2.Integrating the Project to PYCHARM & Other IDEs
- 3.The Project Structure
- 4.Running the in the server
- 5.Setting Up Your Project
- 6.Create and configure Django apps
- 7.Django App Structure
- 8.Configuring App in Project

Module 4: URLs and Views

- 1.What is URL?
- 2.Define URL patterns
- 3.What is View
- 4.Configure URLs
- 5.Developing different views

Module 5: URL dispatcher

- 1.Django URL Mapping
- 2.Configuring URLconf's
- 3.Django URL Functions
- 4.Path()
- 5.Re_path()
- 6.URL Patterns App Level and Project Level
- 7.Include()

Module 6: Django Templates

- 1.Define Django Template
- 2.Django MVT Pattern

- 3.Django Template Configuration
- 4.render() function
- 5.Django Template Language
- 6.Template Tags or Template Variables
- 7.String interpolation
- 8.What is a context?
- 9.Define ContextProcessor?

Module 7: Working with Static Files

- 1.include Static Files inside Template
- 2.Configuring static files
- 3.Creating Project with static resources
- 4.HTML, CSS, Images

Module 8: DJANGO MODEL

- 1.Define Database?
- 2.Define DBMS, RDBMS?
- 3.What is Model?
- 4.Database Configuration
- 5.How to Check Django Database Connection
- 6.Configuration of MySQL Database
- 7.SQLite
- 8.Defining Django Models
- 9.Django Model Fields
- 10.Field Options
- 11.What is a Migration?
- 12.migrate Command
- 13.Creation of Super User
- 14.Register Model Inside Admin Interface
- 15.Difference between makemigrations and migrate
- 16.Define QuerySet
- 17.The Python Template Engine
- 18.Define Jinja2
- 19.Faker Module

Module 9: Relationships in DJANGO MODEL

- 1.What is ORM?



2. One-To-One Relationships
3. Many-To-One Relationships
4. ManyToMany Relationships

Module 10: Django Forms or Model Forms

- 1.What is Model Form?
- 2.Advantages of Django Forms
- 3.Creating Django Forms
- 4.CSRF
- 5.Creating a Login form
- 6.Creating Registration Form

Module 11: Django Form Validation

- 1.What is Validation?
- 2.is_valid()
- 3.Clean Methods
- 4.Creating Project
- 5.What is HTTP?
- 6.Basic Features
- 7.http request methods
- 8.HTTP - URL Encoding

Module 12: Django's Inbuilt Core Validators

- 1.Validators
- 2.Custom Validators
- 3.Validation of Total Form using Clean Method
- 4.Validators
- 5.RegexValidator
- 6.Validating EmailID
- 7.What is BOT?
- 8.How to prevent Requests from BOT

Module 13: Model Based Forms

- 1.How to develop MBF
- 2.__all__
- 3.Exclude-List
- 4.Include-Tuple
- 5.Creating SuperUser

Module 14: Advanced Templates

- 1.Template Inheritance
- 2.Template Filters
- 3.Template tags for relative URLs
- 4.Block-endblock
- 5.extends
- 6.Advantages of Template Inheritance
- 7.Why Template Filters?
- 8.What is Template Filter?
- 9.How to Create Customized Template Filters?

Module 15: Session Management in Django

- 1.Cookies
- 2.What is Cookie?
- 3.Why Cookie?
- 4.Types of Cookies
- 5.Advantages, Limitations
- 6.set_test_cookie():
- 7.test_cookie_worked()
- 8.delete_test_cookie()
- 9.set_cookie()
- 10.get()
- 11.Django Session Framework
- 12.request.session['key']
- 13.request.session.get_expiry_date()

Module 16: Authentication & Authorization

- 1.Define Authentication
- 2.Define Authorization
- 3.Auth System
- 4.Enabling authentication
- 5.Auth system Consists
- 6.Bcrypt& argon2
- 7.Real time example on AA
- 8.Working with Admin

Module 17: Class Based Views (CBV)

- 1.Function Based Views



2. Class based Views
3. Generic Class-Based Views
4. Simple Generic Views
5. Template View
6. List Views

Module 18: Django File Upload

- 1.What is upload
- 2.Creating media_root& url
- 3.How to upload files
- 4.Upload images
- 5.Upload Audio Files
- 6.Upload Video Files

Module 19: Django CRUD Operations

- 1.What is CRUD?
- 2.CREATE
- 3.READ
- 4.UPDATE
- 5.DELETE
- 6.CRUD with Project

Module 20: Django Middleware

- 1.Define Middleware
- 2.Builtin Middleware
- 3.Customizing Middleware
- 4.Middleware Methods

Module 21: How to Send Email in a Django

- 1.What is mail system
- 2.Mail Requirements
- 3.send_mail()
- 4.Configuring Mail Settings
- 5.Sending Email
- 6.Other Email Functions

Module 22: Outputting CSV with Django

- 1.What is CSV?
- 2.CSV Using Models
- 3.Creating a Live CSV Project

Module 23: Outputting PDF with Django

- 1.What is PDF?
- 2.Creating a Live PDF Project

Module 24: Django Crispy Forms

- 1.What is Crispy Form?
- 2.Installing Crispy form
- 3.Template Packs
- 4.Login Crispy form
- 5.Registration Crispy forms
- 6.Crispy with Bootstrap

Module 25: GIT & Github

- 1.What is git?
- 2.Define Version Control System
- 3.Git Installation
- 4.Git commands
- 5.Define Github
- 6.Pulling and Pushing
- 7.Live Environment

Module 26: Bitbucket

- 1.What is Bitbucket?
- 2.Web based Version Control System
- 3.Commits
- 4.Branches
- 5.Pull requests
- 6.Pipelines

Module 27: Deploying Django Apps & Heroku

- 1.What is deployment?
- 2.Creating a Project
- 3.Deploying Django App at product level
- 4.Install heroku CLI
- 5.Virtual Environment
- 6.Introduction to HEROKU
- 7.Deploy at HEROKU
- 8.\$pip freeze



DJANGO REST FRAMEWORK (DRF)

1. What are Web Services?
2. Different Types of Web Services:
 - a. SOAP Web-Service
 - b. REST Web-Service
3. HTTP Request methods
4. Frequent HTTP Methods for RESTful Services
5. DRF Request & Response objects
6. Views for writing API
 - a. Class based views
 - b. Function Based Views
 - c. Generic views
7. DRF Serializers
 - a. Serializer Fields,
 - b. Serializer Validations
8. Format suffixes & writing URLs
9. DRF Viewsets & Routers
10. DRF permissions
11. DRF authentication
 - a. Basic Authentication
 - b. Token Authentication
 - c. Remote Authentication
12. Exception handling in DRF
13. Pagination
14. Status Codes
15. Settings
16. Testing
17. Overview of Project+ Resume
 - a. Web Project Implementation
 - b. Resume Preparation
 - c. Interview Questions





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