



PYTHON FULL STACK



 www.semicoretech.com  9700779739,8688018839

.....
1st floor, sri sai Arcade, Near Aditya Trade Center,
Ameerpet, hyderabad, Telangana, 500016

The text "FRONT END" is written in a large, bold, dark blue, sans-serif font. The word "FRONT" is partially enclosed by a large, thin blue circle that has a slight gradient from blue to green.

HTML-5

A Introduction

- Whatis HTML5?
- Types of Browsers?
- Types of Search Engines?
- Whatis Web site?
- Whatweb page?
- SimpleHTML skeletonprogram
- Commentsin Java
- HTML5 Meta Tags
- HTML Basic Tags
- Phrase Tagsin Html5
- HTML Colors
- HTML Images
- HTML Hyperlinks
- Listin HTML
- HTML Tables
- Block ElementsVs Inline Elements
- HTML forms
- GET vs POSTmethodology
- HTML data list Tag
- Frames
- <iframe>tag
- HTML Audio
- HTML Video Graphics in HTML
- HTML Layouts

B Editor

- Notepad
- Notepad+

CSS-3

A Introduction

- What is CSS?
- CSS background property
- Types of CSS?
- CSS borders
- CSS margins
- CSS paddings
- CSS ID selector
- CSS Class selector
- CSS Height and Width CSS overflow property
- CSS border-radius property
- CSS box-shadow property
- CSS float property
- CSS List property
- CSS tables
- CSS transform property
- CSS display property
- Bootstrap sizing
- CSS position property

B CSS Design Work

- CSS Design 1
- CSS Design 2
- CSS Design 3

C Editors

- Sublime

JAVASCRIPT

A Introduction

- Java vs JavaScript
- Features of JavaScript
- Types of JavaScript
- Output statements in JavaScript
- JavaScript Engine
- JavaScript Comments
- JavaScript variables
- JavaScript LOOPS
- JavaScript Functions
- BOM (Browser Object Model)
- DOM (Document Object Model)
- JavaScript Date objects
- JavaScript Form Validation
- JavaScript Events
- JavaScript Regular Expression

B Editors

- VSC (Visual Studio Code)

C Task

- Task 1
- Task 2
- Task 3

BOOTSTRAP-4

A Introduction

- Whatis Bootstrap
- Advantages of Bootstrap
- Bootstrapcolors
- Bootstrapborders
- Bootstrapbackgrounds
- Bootstrap border-radius
- Bootstrapsizing
- Bootstrapspacing
- BootstrapMargin
- BootstrapContainers
- BootstrapGrid System
- BootstrapTables
- BootstrapImages
- BootstrapJumbo Tron
- BootstrapAlerts
- Bootstrap Progress Bar
- Bootstrap Pagination
- BootstrapList Groups
- BootstrapCollapse plugin
- BootstrapGlyph icons
- Bootstrapnavbar
- BootstrapForm layo

B Designs

- Designs 1
- Designs 2
- Designs 3

REACT/REACTJS

- 1 React Introduction
- 2 Advantages of React
- 3 JSX Introduction
- 4 Expressions in JSX
- 5 JSX elements
- 6 React virtual DOM
- 7 First application development in react
- 8 React project structure explanation
- 9 React Fragment
- 10 Components in React
- 11 Function component vs Class component
- 12 Props
- 13 State
- 14 Composing component
- 15 CSS in React
- 16 Type checking in props
- 17 ReactJS vs React Native
- 18 ReactJS vs AngularJS
- 19 Event Handling in React
- 20 Update state using event handling
- 21 Phases of components in react
- 22 Life cycle methods in react
- 23 Hooks introduction
- 24 Predefined hooks
- 25 Custom hooks
- 26 React Router
- 27 Lists in React
- 28 Key in React
- 29 Assets in React
- 30 Bootstrap in React
- 31 React Forms
- 32 Axios
- 33 ReactJS + NodeJS + MYSQL database integration
- 34 React Redux

A large, thin blue circle graphic that is partially cut off on the right side, framing the text "BACK END".

BACK END

CORE PYTHON

Introduction

- History
- Features
- Settingup path
- Working with Python
- Basic Syntax
- Variables and Data Types

Conditional Statements

- If
- If-else
- Nested if-else

Looping

- For
- While
- Nested loops

Control Statements

- Break
- Continue
- Pass

String Manipulation

- Accessing Strings
- BasicOperations
- String slices
- Functionand Methods

Lists

- Introduction
- Accessing list
- Operations
- Workingwith lists
- Functionand Methods

Lists

- Introduction
- Accessing tuples
- Operations

Set

- Introduction
- Accessing Set
- Operations

Dictionaryes

- Introduction
- Accessing values in dictionaries
- Workingwith dictionaries
- Properties
- Functions

FUNCTIONS

- Defining a function
- Calling a function
- Types of Arguments
- Required Arguments
- Default Arguments
- Named Arguments
- Arbitrary Arguments
- Lambda Functions(Anonymousfunctions)
- Global and local variables
- Higher Order Functions
- Return Functions
- Recursive Functions

Modules

- Importing module
- Packages
- Composition

Input-Output

- Printing on screen
- Reading data from keyboard
- Opening and closing file
- Reading and writing files
- Functions
- CSV Files
- Json Files
- Pickling and UnPickling

Exception Handling

- Exception
- Try, ExceptBlock
- Raising Exceptions
- User Defined Exceptions
- finally, Block

Advance Python

- OOPs concept
- Class and object
- DataAbstraction
- Data Encapsulation
- ADT
- Constructors
- Destructors
- Static
- Instance Data Members
- Class Level Data Members(Shared variable)
- Class Level Methods(Shared functions)
- Instance Level Methods
- Attributes
- Single Inheritance
- Inheritance
- Multilevel Inheritance
- Multiple Inheritance
- Hierarchical Inheritance
- Hybrid Inheritance
- Shelve module
- Overloading
- Data hiding

- Abstract Functions
- Abstract classes
- Polymorphism
- Setters and Getters
- Packages & Modules

Decorators Descriptors

Regular Expressions

- Match function
- Search function
- Matching VS Searching
- Modifiers
- Patterns

Database

- Introduction
- Connections
- Executing queries
- Transactions
- Handling error

Numpy (Numerical python)

- Pandas
- Matplotlib
- Seaborn

DJANGO COURSE CONTENT

COURSE DURATION: 45 WORKING DAYS (DAILY 1.30 HOURS)

Web Development Introduction

- HTML-Introduction
- HTML Tags
- HTML Attributes:
- CSS Files Introduction
- Types of CSS Files
- Inline CSS Files
- Internal CSS Files
- External CSS Files

Java Script

- Introduction to JavaScript....
- Working with Variables and Data in JavaScript.
- Functions, Methods and Events in JavaScript....

Introduction to Django

- Introduction
- About Django
- Django Components
- Installing & Configuring Django Components
- Django Pre-Requisites Downloading & Installing Django
- Choosing a Database
- Creating a New Project

Module 2:

- Generating Simple Django Views
- Generating Simple Django Views
- About View Functions
- Using Django's HttpResponseClass
- Understanding HttpRequest Objects
- UsingQuery DictObjects

Module 3:

- Configuring URLconf's Configuring URLconf's About URLconf Regular Expressions Expression Examples Simple URLConf Examples Using Multiple URLConf's
- PassingURL Arguments

Module 4:

- Django Templates
- About Templates
- Template Fundamentals
- Creating Template Objects
- Loading Template Files
- Filling in Template Content (Context Objects)
- Template Filters Template Tags
- More on For Loops
- Template Inheritance
- Easy Rendering of Templates
- Request Context Processors
- Global Context Processors

Module 5: Forms

- GettingData from the Request Object
- A Simple Form-Handling Example
- Making a Contact Form
- Tying FormObjectsinto Views

Module 6:

- Database Models with Django About Database Models
- Configuring Django for Database Access
- Understanding Django Apps
- About Django Models
- Defining Django Models
- Understanding Model Fields & Options
- Table Naming Conventions
- Creating A Django Model
- Adding the App to Your Project
- Validating the App
- Generating & Reviewing the SQL
- Adding Data to the Model
- Primary Keys and the Model
- Simple Data Retrieval Using a Model
- Understanding Query Sets
- Applying Filters
- Specifying Field Lookups
- LookupTypes

- Specifying Ordering in Query Sets
- Slicing Query Sets
- Common Query Set Methods
- Deleting Records
- Managing Related Records
- Retrieving Related Records
- Using Q Objects
- Creating Forms from Models

Module 7:

- Using the Django Admin Interface
- Using the Django Admin Interface
- Enabling the Admin Interface
- Creating an Admin User

Module 8:

- Access Control with Sessions and Users
- Access Control with Sessions and Users
- Cookies & Django
- The Django Session Framework
- Sessions in Views
- Session Tuning
- Installing Django User Authentication
- Using Authentication in Views
- Login and Logout
- Building your Own Login/Logout Views

- Authentication Decorators
- Adding & Deactivating Users Asynchronous Messaging
- Managing Permissions

Module 9:

- Generic Views
- Simple Generic Views
- UsingGeneric Redirects
- Other Generic Views
- Create/Update/Delete Generic views

Module 10:

- Django Rest Framework
- Rest Api Introduction
- SoftWareSetup
- InstallDjango
- InstallDjango REST Framework
- Rest in Action
- Create the Project
- Create a view
- Configure the URL and TEST
- Create app level urls
- Create a model class
- Configure the database and run migrations
- Use the model in the view and test
- FunctionBased Views and Serializers

- Class Based Views
- Mixins
- Generic Views
- ViewSets

Module 11:

- Django Case Studies Django Case Studies.

ABOUT US

- Semicore Technologies is a leading EdTech and IT training institute offering industry- focused programs across the most in demand technologies, including Python, Java, .NET, Embedded Systems, Data Science, Data Engineering, Generative AI, Cyber Security, Digital Marketing, Testing Tools, DevOps with Multi- Cloud, and Data Analytics.
- We are committed to providing hands-on, job oriented training through real-time projects,

OUR CERTIFICATES





CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS AWARDED TO

has completed course on _____

from _____ *to* _____ *successfully*

we wish this intern all the best for future endeavours

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Thank You
-Team Semicore

