

# Django – Full Stack

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## HTML, CSS& Bootstrap

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### Day 1

#### Web Designing introduction

- What is a Website?
- Importance of website as a media
- Web Designing
- Who is a Web Designer?
- Why You Should Become a Web Developer
- Key Web Terms and Their Explanations
- Coding and Languages
- Web Languages

### Day 2

#### How to create a webpage

- Introduction to HTML
- HTML Tags and Elements
- HTML Basic Tags (<h1> to <h6>,<p>)
- Steps to Create a Simple Webpage Using Notepad
- Create a sample HTML document

### Day 3

#### More tags in HTML

- Basic tags : <br>,<hr>,<b>,<i>,<u>,<mark>,<sup>,<sub> and <title> tags.
- Empty Elements

### Day 4

#### Insert images in a webpage

- Attributes in HTML
- <img> Tag
- Attributes of <img> Tag(src,width,height, alt and title)

### Day 5

## Hyperlinks

- Anchor Tag (<a>)
- href and target attributes
- Image links

### Day 6

#### Create a website model

Create a website model with 5 pages ( Home (index.html), about, services, products and contact pages ) and add hyperlinks to link each other

### Day 7

#### Link to bookmarks

- Create bookmarks
- Navigate to bookmarks using links

### Day 8

#### CSS Introduction

- CSS introduction
- CSS Syntax
- Link to CSS file
- Basic CSS properties (color, background-color,font-family,font-size,text-align)

### Day 9

#### Selectors in CSS

- Element Selector
- ID Selector
- Class Selector

### Day 10

#### CSS Styling Methods

- Inline styling
- Internal styling
- External styling

### Day 11

#### CSS Text Properties

- Text Shadow
- Text Transform: Uppercase and lower case

- Bold, italic and underline using CSS

## *Day 12*

### **CSS Background properties**

- Background Color (Color name )
- Background Color (RGB)
- Background Color (HEX Code)
- Linear & Radial Gradient
- Background Image

## *Day 13*

### **HTML Lists**

- Unordered List
- Ordered List

## *Day 14*

### **HTML Tables**

- Basic Table Structure
- <table>, <thead>, <tbody>, <tr>, <th> and <td> tags
- Attributes of a Table(border, cellpadding, cellspacing, width and height)
- Merging in HTML Tables

## *Day 15*

### **HTML forms**

- Text Input
- Password Input
- Radio Buttons
- Checkboxes
- Dropdown List
- Textarea

## *Day 16*

### **HTML Iframes**

- Iframe - Basic Syntax
- Iframe attributes (src, name, width, height, frameborder)
- Link to iframes

## *Day 17*

### **Multimedia in web**

- Embedding Audio
- Embedding Video
- Embedding YouTube Videos

## *Day 18*

### **Organize content using <div> Element**

- Inline and block elements
- What is a `

` Element?
- Purpose of `

` Element
- Basic Syntax

## *Day 19*

### **More properties for <div>**

- Background-color
- Width
- Height
- Margin
- Padding
- Border-style
- Border-width
- Border-color
- Float

## *Day 20*

### **Shapes and shadow for <div>**

- Square with Shadow
- Rounded Rectangle
- Irregular Rounded Corners & Circle
- Rotated Square
- Skewed Rectangle

## *Day 21*

### **Web layout using float**

- The Wrapper Container
- Floated Child Elements
- Styling Boxes
- Benefits of Using Float

## *Day 22*

### **Responsive web designing**

- Set Viewport
- Media query
- Desktop View
- Tablet View
- Mobile View

## *Day 23*

### **Design a simple webpage using float**

- Header section
- Hero section
- About section
- Service section
- Contact section
- Footer section

## *Day 24*

### **Grid web layout**

- Grid Basics
- Key CSS Grid Properties
- display: grid
- grid-template-columns
- grid-template-rows
- grid-template-areas
- grid-area
- Responsive Design

## *Day 25*

### **Design a simple webpage using CSS Grid**

- Header section
- Hero section
- About section
- Service section
- Contact section
- Footer section

## *Day 26*

### **CSS Positions**

- Static Position
- Relative Position
- Absolute Position

- Fixed Position
- Sticky Position

## *Day 27*

### **CSS Layers& Opacity**

- z-index
- opacity
- transparent background

## *Day 28*

### **CSS Animation**

- CSS Transitions
- Simple Animations
- Complex Animations

## *Day 29*

### **CSS Flexbox**

- Flexbox Properties for the Container
- flex-direction
- justify-content
- align-items
- gap
- flex-grow, flex-shrink and flex-basis
- flex property
- align-self
- order

## *Day 30*

### **Flex web layout**

- HTML Structure
- CSS Styling
- How the Layout Works
- Responsive Design
- Flex different width

## *Day 31*

### **Design a simple webpage using CSS Flexbox**

- Header section
- Hero section

- About section
- Service section
- Contact section
- Footer section

## *Day 32*

### **Semantic Tags**

- Benefits of Semantic Tags
- Common Semantic Tags (<header>, <nav>, <section>, <article>, <aside>, <footer>)

## *Day 33*

### **Full website project using Flex and Grid**

## *Day 34*

### **Host and deploy the website on GitHub**

## *Day 35*

### **Bootstrap**

- Bootstrap introduction
- Bootstrap grid system

## *Day 36*

### **Create responsive web pages using Bootstrap**

## *Day 37*

### **Bootstrap more features**

- Typography
- Colors
- Tables
- Images
- Jumbotron
- Alerts
- Buttons
- Button Groups
- Badges
- Progress Bars
- Spinners
- Pagination
- List Groups
- Cards

- Dropdowns
- Collapse
- Navs
- Navbar
- Carousel
- Modal
- Forms

### *Day 38*

**Create website projects using Bootstrap.**

### *Day 39*

**Designing websites with ready-made templates**

### *Day 40*

**Purchase a domain name and hosting space to host a website.**

### *Day 41*

**Create a website using WordPress**

### *Day 42*

**Create a portfolio to showcase projects that you have done.**

## JavaScript & jQuery

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### *Day 43*

#### **JavaScript Introduction**

- What is JavaScript?
- What JavaScript can do in a webpage

### *Day 44*

#### **Change Content**

- Onclick attribute
- Change content using innerHTML

### *Day 45*

#### **Change Attributes and Styles**

- Change Attributes using JavaScript
- Change Styles in a webpage

## *Day 46*

### **Functions in JavaScript**

- Script tag
- Multiple JavaScript Statements
- Create functions
- Function call
- Multiple functions

## *Day 47*

### **JavaScript Outputs**

- Output using InnerHTML
- Output using document.write
- Output using alerts
- Console output

## *Day 48*

### **Variables**

- What is a variable?
- Variable declaration
- Assign values
- Variable outputs

## *Day 49*

### **User Input**

- User input using HTML forms
- Assign input values into variables

## *Day 50*

### **Operators**

- Arithmetic Operators
- Assignment Operators
- Comparison Operators
- Logical Operators

## *Day 51*

### **Arithmetic Operations**

- Program using Arithmetic operators
- Solve different arithmetic equations

## *Day 52*

### **Conditional Statements**

- If and If..else
- Nested If

- Else if ladder

## *Day 53*

### **Conditional Statements (cont.)**

- If using Logical Operators
- Switch statement

## *Day 54*

### **Loops in JavaScript**

- While loop
- Do..while loop
- For loop
- Entry controlled loops
- Exit controlled loops

## *Day 55*

### **Arrays**

- What is a array?
- Array Declaration
- Print array elements
- Array index
- Add new elements
- Change elements
- Remove elements
- Find length of an array
- Print in HTML elements

## *Day 56*

### **Function Types**

- Different types of functions
- Function without arguments and return values
- Function with arguments
- Function with return values
- Function with arguments and return values

## *Day 57*

### **Let and Const**

- Scope
- Reassignment
- Usage

## *Day 58*

### **Form Validation**

- What is validation
- Front end validation
- Handle submit event
- Error messages
- preventDefault

### *Day 59*

#### **jQuery**

- What is jQuery?
- jQuery Download / jQuery CDN
- jQuery Selectors

### *Day 60*

#### **jQuery Visibility**

- Hide& Show
- FadeIn&FadeOut
- SlideDown&SlideUp

### *Day 61*

#### **Change Styles**

- Add and remove class
- Change single styles
- Change multiple styles
- Change dimensions

### *Day 62*

#### **jQueryDOM Manipulation Methods**

- Append content
- Prepend content
- Add content after
- Add content before
- empty elements
- remove elements

### *Day 63*

#### **jQuery Get and Set Methods**

- Change attributes
- Change text
- Change HTML
- Change Input values

### *Day 64*

## jQuery Traversal

- children() Method
- parent() Method
- siblings() Method

## Day 65

### jQuery Animation

- animate() Method
- setTimeout() & setInterval() Methods

# Python

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## Day 66

### Python Introduction

- What is Python?
- What can Python do?
- Why Python?
- Python Syntax compared to other programming languages

### Run Python

- Python Install
- Command prompt and windows commands
- The Python Command Line

## Day 67

### Python Variables

- Creating Variables
- Assign values
- Variable types
- Print variables

## Day 68

### User Input in Python

- Input strings
- Input numbers
- Print input values

## Day 69

## **Operators in Python**

- Arithmetic Operators
- Comparison Operators
- Logical Operators
- Assignment Operators
- Identity Operators
- Membership Operators

## **Arithmetic Operations**

- Basic program using arithmetic operators
- Solve arithmetic equations

## *Day70*

### **Conditional statements**

- Simple if statement
- If..else statements
- Nested if else
- Elif ladder
- Logical operators in if

## *Day71*

### **Loops in Python**

- While Loop
- For Loop

## *Day72*

### **Python Lists**

- List features
- list length
- Get items
- change items
- add items
- Remove items
- check item
- Loop list

## *Day 73*

### **PythonTuples**

- Tuple features

- Tuple length
- Get items
- change items
- add items
- Remove items
- Unpacking
- check item
- Loop Tuple

## *Day 74*

### **Python Sets**

- Set features
- Set length
- Get items
- change items
- add items
- Remove items
- check item
- Loop Set

## *Day 75*

### **Python Dictionaries**

- Dictionary features
- Dictionary length
- Get items
- change items
- add items
- Remove items
- check item
- Loop Keys
- Loop Values
- Loop Keys and Values

## *Day 76*

### **Functions**

- Importance of functions
- Function with arguments
- Function with return values

## *Day 77*

## **Class & Objects**

- What is a class
- What is an object
- Create class and objects
- Object with properties
- Object functions

## *Day 78*

### **Inheritance**

- Base or Super class
- Derived or sub class
- Inheriting parent functions

## *Day 79*

### **Polymorphism**

- Importance of Polymorphism
- Class Polymorphism
- Inheritance Class Polymorphism

## *Day 80*

### **Modules**

- Create a Module
- Use a Module
- Variables in Module
- Built-in Modules

## *Day 81*

### **Python Dates**

- Date Output
- Creating Date Objects
- The strftime() Method

## *Day 82*

### **Math Functions**

- Built-in Math Functions
- The Math Module

## *Day 83*

## JSON

- JSON in Python
- Parse JSON - Convert from JSON to Python
- Convert from Python to JSON

## *Day 84*

### PIP

- What is PIP?
- What is a Package?
- Find Packages
- Download a Package
- Using a Package

## *Day 85*

### Try Except

- Exception Handling
- try and except
- Many Exceptions
- Else
- Finally

## *Day 86*

### F-Strings

- Placeholders and Modifiers
- Perform Operations in F-Strings
- Execute Functions in F-Strings

## *Day 87*

### File Handling

- Open and read a File
  - Read Only Parts of the File
  - Close Files
  - Append and Write to an Existing File
  - Create a New File
  - Delete a File
  - Check if File exist
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# Django Syllabus

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## *Day 88*

### **Introduction to Django**

- What is Django?
- Key Features of Django
- MVT Architecture

## *Day 89*

### **Setting Up a Django Project**

- Installing Python and PIP
- Creating a Virtual Environment
- Installing Django
- Creating a Django Project
- Running the Project

## *Day 90*

### **Customizing the Home Page**

- Reopening the Created Project
- Creating an App
- Creating a View
- Defining URLs
- Adding URLs to the Project

## *Day 91*

### **Working with Templates**

- Creating Template Files
- Importing Templates in Views
- Rendering Templates
- Configuring Templates in Settings

## *Day 92*

### **Creating Multiple Pages**

- Using Multiple Templates
- Defining Multiple Views
- Setting Up Multiple URLs
- Linking Pages Together

## *Day 93*

### **Managing Static Files**

- Adding a CSS File
- Adding Images
- Adding JavaScript Files

## *Day 94*

### **Creating a Master Page (Template Inheritance)**

- Creating a Master Page
- Using Blocks in Templates

## *Day 95*

### **Introduction to Databases**

- What is a Database?
- Database Management Systems (DBMS)
- Database Schema
- Database Tables
- Introduction to SQL Queries

## *Day 96*

### **Working with Django Models**

- Creating Models
- Migrating Models
- Importing Models
- Inserting Data into Models

## *Day 97*

### **Django Admin Panel**

- Introduction to Django Admin
- Creating a Superuser

- Registering Models in Admin

## *Day 98*

### **User Authentication in Django**

- Creating a Registration Form
- Creating a Login Form
- Authenticating Users for the Account Page
- Implementing Logout Functionality

## *Day 99*

### **Working with Django Forms**

- Introduction to Django Forms
- Creating a Basic Django Form
- Displaying Forms in a Template
- Handling Form Submissions

## *Day 100*

### **Django Project – Building a Shopping Website**

- Adding Products with Images
- Displaying Products
- Implementing a Shopping Cart
- Creating a Checkout Page
- Managing Orders