

PYTHON FULL STACK DEVELOPMENT

FrontEnd Mastery SackEnd Mastery (Django Framework

Python Mastery 🛛 🗹 Data Analytics & Science Mastery

В

JavaScrip

django

CSS

Data Analyti

ITM

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About INCAPP

INCAPP Coding Institute, established in 2011, was founded with the goal of addressing the global tech skills shortage. Our commitment lies in offering high-quality training programs to students, professionals, and organizations. We strive to empower individuals with coding skills, facilitating personal and professional growth, and assisting organizations in enhancing their workforce's productivity and effectiveness.

Our company boasts a team of seasoned instructors, experts in their fields. We employ the latest teaching methodologies and technologies to provide engaging and interactive training programs.

> We foster innovation and empower aspiring coders. As founders, we are excited to welcome you aboard. Whether you're new to coding or already experienced, our hands-on curriculum and expert instructors will guide you. Coding is more than just writing lines; it involves creativity and problem-solving. Embrace challenges and celebrate your successes, knowing that coding is a journey of continuous growth. Let's get started!

Oracle & Microsoft Certified

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How We Help You To Learn

Step

Step

Step

3

Step

4



Expert Instructors

Top-class instructors, experts in their fields, teach through practical training.

Assignments

Understand all concepts through well-structured assignments.

Doubt Resolutions

Dedicated assistance provided to clarify doubts, featuring two types of instructors: Class Instructor and Lab Instructor.

Projects

Gain a comprehensive understanding of the technology through project work, guided by your instructor.





Why INCAPP Coding Institute

Students deserve the finest learning environment. At INCAPP, we guarantee a superior learning experience and personalized support to ensure your success.













The world's leading tech companies and startups hire our students





Learning Path - Python FullStack



INCAPP The Coding Institute

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What You Will Learn



07



Course Overview:

Python is a great and friendly language to use and learn. Python is a versatile, high-level programming language favored for its readability and vast ecosystem of libraries. In Data Science, it is extensively used for data analysis, machine learning, and complex data visualizations due to its powerful libraries like Pandas, NumPy, and Matplotlib. Python simplifies the process of data manipulation, statistical modeling, and predictive analysis, making it a go-to tool for data scientists to extract insights and make data-driven decisions. Its ease of use and comprehensive resources make Python a popular choice for both beginners and experts in the field of Data Science.

PYTHON



- History & Features of Python
- Versions of Python
- Applications of Python
- Scripting vs Programming Language
- Interactive Mode vs Script Mode
- Installing Python
- Writing First Python Program
- Executing First Python Program using Interactive Mode
- Executing First Python Program using Script Mode Assignments

Python Basic

- Introduction
- Keywords
- Identifiers
- Comments
- Data Type
- Variables
- print(), type(), id() functions

- Operators
- Type conversion functions
- Receiving input from keyboard
- Working with input() function
 Assignments

Python Operators

- Assignment Operator
- Arithmetic Operator
- Short-hand Operator
- Relational Operator
- Logical Operator
- Identity Operator
- Membership Operator
- Bitwise Operator

Assignments

Decision Making Statements

- If Statement
- If else Statement
- Elif Statement
- Nested Decision Making Statement
 Assignments





Looping Statements

- For Loop
- While Loop
- Else with Loop
- Pass, break and continue
- Nested Loops
 Assignments

Functions

- Defining a Function
- Calling a Function
- Types of Functions
- Formal and actual Arguments
- Named and keyword arguments
- Default and Positional Arguments
- *args and **kwargs Arguments
- Local and Global Variables
- Lambda function

Modules & Packages

- Need of modules
- Creating a module and Importing Module
- Different ways of importing
- Working with Built-in Modules like math, sys, os, random, datetime etc.
- Creating a Package and Using a package
 Assignments

OOP Concepts

- Understanding Object Oriented Programming (OOP)
- Who created OOP's Concepts and Why?
- Learn all OOP's Concepts in real world
- Defining your own clas
- · Creating object of a class
- Variables and Methods in a Class
- Instance Member
- Class Member

Assignments

Encapsulation

- Understanding Encapsulation in Class
- Public and private access specifiers Assignments

Constructor & Destructor

- Syntax of Constructor
- Need of Constructor
- Creating Constructor
- Constructor with default arguments
- Destructor

Assignments





Inheritance

- Syntax of Inheritance
- Need of Inheritance
- Derived (child) and Base (parent) classes
- Working of constructor in Inheritance
- Types of Inheritance
- Data Hiding
 Assignments

Polymorphism

- Operator Overloading
- Method Overriding
- Abstraction
 - Abstract class
 - Abstract method
- Properties

Assignments

Python Built-in Data Types

Strings

- Creating Strings
- Strings Immutability
- String Indexing and Slicing
- String Formatting
- String Functions
- String Operators
- String Methods
- String Joining and Splitting Assignments

List

- Creating and Accessing Lists
- List Mutability
- List operators and methods
- Generating List using range()
- Searching in List
- User defined type List
- Converting String into List
- Converting List into String
- Nested Lists

Assignments

- Tuples
- Creating Tuple
- Tuple indexing, slicing and functions



- Tuple operators and Methods
- Nested Tuples
- Converting String and List to Tuple
- Converting Tuple to String and List

Assignments

Dictionary

- Creating Dictionary
- Dictionary mutability
- Adding and Deleting keys value pairs
- Looping through Dictionary
- Extracting only keys and only values from Dictionary
- Creating Dictionary from List and Tuple
- Dictionary comprehension Assignments

Set

- Creating a Set
- Normal and frozen Set
- Creating and modify Empty Set
- Add, removing and discarding elements to Set
- Converting String, List and Tuple to Set
- Converting Set into String, List and Tuple
 Assignments

Exception Handling

- Errors and Exceptions
- Exception Handling
- Try and Except Block
- Else block with try-except block
- Finally Block
- Raising an Exception
- User-defined Exception

Assignments

GUI Programming

- Introduction to Tkinter Programming
- Tkinter Widgets (Label, Button, Entry, ComboBox,
- RadioButton, CheckBox, ListBox, TreeView, Frame)
 Assignments

Widgets Event Handling

Project Work





What You Will Learn





CURRICULUM

Course Overview:

Data Science using Python is a very popular course. It allows Python Programmers to extract deep knowledge from huge amounts of data. It provides the necessary skills to analyze and visualize the complex data.

Data Science



Introduction to Data Science

- What is Data Science?
- Why Data Science?
- Applications of Data Science
- Scope of Data Science
- Introduction to Libraries for Data Science
- Tools required for Data Science

MY-SQL

- Introduction to MY-SQL
- Installing MYSQL
- DML, DDL, & DQL Commands
- Constraints:
 - NOT NULL, NULL, UNIQUE
 - Introduction to Keys in SQL
 - Primary Key
 - Unique Key
 - Foreign Key
 - Composite Key
 - Candidate Key
 - CHECK ,DEFAULT
- SQL Commands
 - DDL (Data Definition Language)
 - CREATE
 - CREATE DATABASE
 - CREATE TABLE
 - CREATE INDEX
 - CREATE VIEW
 - CREATE SCHEMA







- ALTER
 - ALTER TABLE
 - ALTER INDEX
- DROP
 - DROP TABLE
 - DROP DATABASE
 - DROP INDEX
 - DROP VIEW
 - DROP SCHEMA
- TRUNCATE
 - TRUNCATE TABLE
- DQL (Data Query Language)
 - SELECT
 - SELECT *
 - SELECT column1, column2, ...
 - SELECT DISTINCT
 - SELECT ... FROM ... WHERE ...
 - SELECT ... FROM ... ORDER BY ...
 - SELECT ... FROM ... GROUP BY ...
 - SELECT ... FROM ... HAVING ...
 - SELECT ... FROM ... JOIN ...
 - FETCH
 - FETCH NEXT
- DML (Data Manipulation Language)
 - INSERT
 - INSERT INTO
 - UPDATE
 - UPDATE ... SET ...
 - DELETE
 - DELETE FROM ... WHERE ...
 - LIKE Operator
 - WHERE column_name LIKE pattern
 - JOINs
 - INNER JOIN
 - LEFT JOIN
 - RIGHT JOIN
 - FULL JOIN
 - CROSS JOIN
 - SELF JOIN



MySQL Functions

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- Aggregate Functions
 - COUNT()
 - SUM()
 - AVG()
 - MIN()
 - MAX()
- String Functions
 - CONCAT()
 - SUBSTRING()
 - LENGTH()
 - UPPER()
 - LOWER()
- Date and Time Functions
 - NOW()
 - DATE()
 - TIME()
 - YEAR()
 - MONTH()
 - DAY()
 - HOUR()
 - MINUTE()
 - SECOND()

Statistics

- What is Statistics?
- Why Statistics?
- Mean, Median and Mode
- Standard Deviation and Variance
- Normal Distribution

Jupyter Notebook Setup

- Understanding Jupyter Notebook
- Downloading and Installing the Anaconda
- Creating Document in Jupyter Notebook
- Writing and Executing Python in Jupyter Notebook
- Using the Code Mode of Jupyter Notebook
- Using the Markdown Mode of Jupyter Notebook
- Using the Heading Mode of Jupyter Notebook



Mastery in Numpy Library

- Introduction to Numpy
- Creating One-dimensional Numpy Arrays
- Indexing and Slicing in One-dimensional Numpy Array
- Operations on One-dimensional Numpy Array
- Creating Multi-dimensional Numpy Arrays
- Indexing and Slicing in Multi-dimensional Numpy Array
- Operations on Multi-dimensional Numpy Array
- Difference between Numpy Array and List
- Finding time complexity of Numpy Array and List
- Finding space complexity of Numpy Array and List

Panda Library

- Introduction to Pandas
- Understanding Series and DataFrame
- Series
 - Creating Series from List
 - Creating Series from Dictionary
 - Indexing and Slicing in Series
- DataFrame
 - Creating DataFrame from List
 - Creating DataFrame from Dictionary
 - Creating DataFrame from Series
 - Indexing and Slicing in DataFrame
 - Looping through DataFrame
 - Removing Rows and Columns from DataFrame
 - Sorting Data in DataFrame
 - Finding Missing values in DataFrame
 - Removing Missing values in DataFrame
 - Data Manipulation in DataFrame
 - Exploratory Data Analysis in DataFrame
 - Merging DataFrame
 - Data Encoding in DataFrame
 - One Hot Encoding in DataFrame
 - Working with Dates and Times Data in DataFrame
 - Working with Real-time data using Pandas
- Data Cleaning in DataFrame
 - Replacing Missing values in DataFrame
 - Data Encoding in DataFrame
 - One Hot Encoding in DataFrame



URRICULUM

- Data Import and Export
 - Reading Data from CSV files
 - Writing Data to CSV files
 - Reading Data from Excel files
 - Writing Data to Excel files
 - Reading Data from SQL databases
 - Writing Data to SQL databases
 - Reading Data from JSON files
 - Writing Data to JSON files
 - Reading Data from HTML files
 - Writing Data to HTML files
- Advanced Operations
 - Integration with NumPy
 - Integration with matplotlib for visualization
 - Integration with seaborn for advanced visualization

Plotting and Visualization - Matplot Library

- Introduction to Matplotlib
- Understanding Matplotlib's Architecture
- Basic Plotting
 - Line Plot
 - Scatter Plot
 - Bar Plot
 - Histogram
 - Pie Chart
- Customizing Plots
 - Adding Titles and Labels
 - Changing Colors and Styles
 - Adding Legends
 - Setting Axis Limits
 - Adding Gridlines
 - Annotating Plots
- Subplots
 - Creating Subplots
 - Customizing Subplots
 - Sharing Axis Limits
- Advanced Plotting
 - 3D Plotting
 - Polar Plot
 - Contour Plot



CURRICULUM

- Heatmap
- Box Plot
- Saving and Exporting Plots
 - Saving Plots as Image Files
 - Exporting Plots to PDF
- Integration with Pandas
 - Plotting Pandas DataFrames
 - Customizing Pandas Plots
- Interactive Plotting
 - Adding Interactivity with Widgets
- Working with Multiple Figures
 - Managing Multiple Figures
 - Saving Multiple Figures

Seaborn Library

- Introduction to Seaborn Library
- Styling Functions
- Color Pallets
- Distributed Plots
- Categorical Plots

SciPy Library

- Introduction to SciPy
- Creating Functions
- Models of SciPy

Power BI Essentials

- Introduction to Power BI
 - What is Power BI?
 - Why use Power BI?
 - Power BI Components Overview
 - Power BI Desktop
 - Power BI Service
 - Power BI Mobile
 - Getting Started with Power BI Desktop
 - Downloading and Installing Power BI Desktop
 - Interface Overview
 - Loading Data
 - Building Visualizations



18



- Power BI Basics
 - Data Sources
 - Excel
 - Databases (SQL Server, MySQL, etc.)
 - Web Data Sources
 - Data Transformation
 - Cleaning and Shaping Data
 - Data Modeling
 - Creating Basic Visualizations
 - Bar Charts
 - Line Charts
 - Pie Charts
 - Tables
 - Introduction to DAX (Data Analysis Expressions)
 - Calculated Columns
 - Measures
 - DAX Functions
- Advanced Power BI Techniques
 - Advanced Data Modeling
 - Relationships
 - Hierarchies
 - Calculated Tables
- Advanced Visualizations
 - Drilldown Charts
 - Treemaps
 - Waterfall Charts
 - Custom Visuals
- Power BI Integration
 - Integrating with Excel
 - Integrating with Azure Services
 - Integrating with SharePoint
 - Using Power BI REST APIs





OpenCV

- Introduction to OpenCV
- Reading Images
- Understanding Gray Scale Image
- Resizing Images
- Understanding Haar Classifiers
- Face and Eyes Classification
- How to Use Webcam in OpenCV
- Building Image DataSet
- Capturing Video
- Face Classification in Video

Project Work





What You Will Learn





Course Overview:

Front-end web development is focused on building the visual and interactive aspects of a website that users interact with directly. It involves the use of languages like HTML, CSS, and JavaScript to create an engaging and responsive user interface. This area of web development is crucial for ensuring a seamless and intuitive user experience, making the website accessible and aesthetically pleasing across various devices and browsers. It plays a key role in attracting and retaining users, thereby directly impacting the success of a website or web application.

Introduction

URRICULUN

- Introduction & History of Internet & WWW
- What is a website?
- Difference between Server & Browser
- Static and Dynamic Website
- What is Domain, Deployment & Hosting

HTML



- Introduction & History of HTML
- Getting Started with HTML
- Creating First Web Page
- Understanding Basics of Web Page
- Requirement of DOCTYPE
- Tag vs Element
- HTML Headings
- Line Break & Horizontal Line
- Creating HyperLinks
- Anchor Tag
- Tag Anatomy
- HTML CommentsSetting the Colors
- Setting the Colors
 Working with Images
- Img_tag Understanding Alt attribute Image as link
- HTML Favicon Image

Project Work

- Div tag
- Center Tag
- Text Formatting
- Bold Italic Underline

- Strike Marked Smaller Big Quote
- HTML List Ordered List Unordered List Definition List Nested List
- Project Work
- Creating Tables
- Understanding table structure
- Table with rowspan and colspan

Project Work





ADVANCE HTML

HTML

- HTML Form
 Input Types
- Text Number Email
 - Password Range
 - Tel Color

CURRICULUM

- Color Url Date
- Time
- Month
- Week
- Radio Checkbox File
- Search Submit
- Reset

- Creating Buttons(Submit,Reset,Image)
 Creating MultiLine Input box (TextArea)
 Form Validation with "pattern" attribute

Creating Drop-Down List

Project Work

- HTML Character Entities
- Span Tag
- Sub and Sup tags
- HTML Semantic Elements
 - Iframe tag Embed a Pdf Embed the Google Map Embed the Youtube Video Embed a webpage
- Video tag
- Audio tag
- Meta Tag
- Auto Refresh

Project Work

- css 💿
- Introduction & History of CSS
- Types of CSS Implementation Inline CSS Internal CSS
 - External CSS
- Understanding CSS syntax
- CSS selectors
- Tag selector
- ID selector
- Class selector
- Group selector
- Universal selector
- Combinator selector
- · Descendent selector
- · Child selector
- Adjacent Sibling selector
- - General Sibling selector
- Selector Priorities
- Color Formats

.

- Border property
- Round Border property
- Outline property
- Working with height & width property
 - Margin & Padding property

Project Work

- Background property
- Background color
- Background Image
- Background repeat
- Background attachment
- Background position
- Background size
- Background gradient
- Linear
- Radial
- Text Formating
- Align
- Direction
- Decoration
- Transform
- Intent
- Spacing
- Line Height
- Word Spacing
 Text Shadow
- Box Shadow
- Font Property

Project Work

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23



ADVANCE CSS

- Display Property
- Creating Page Layout

CSS

Project Work

- Float Property
- Position Property
- Z-Index Property
- Opacity Property
- Overflow Property
- Division in Horizontal center
- Division in Page center
- Division shape Angled Curvy
- Pseudo class
- Navigation Bar Vertical
- Navigation Bar Horizontal

Project Work

- Filter Property
- Transform Property Skew Rotate Scale
 - Translate
 - Transition Property
- Transform with Transition Property

Project Work

- JAVASCRIPT
 - Introduction & History of JS
 - Creating Alert Dialog
 - Ways for adding JS in HTML page

JS

- Plain JS
- JS using Function
- Change Text
- Project Work
- Console Log
 - Operators Assignment Arithmetic Shorthand Increment-Decrement Conditional Relational Logical
 - Decision Making If If-else If-else-if Switch
 - Project Work

- Loop Controls For loop While loop Do-while loop
- Break and Continue keyword

Project Work

- Var, Let and Const
- Functions and Methods
- Window methods
- Document methods
- Arrays
- String
- String methods
- Change CSS
 - JS Events Click event
 - Key event Mouse event Focus and Blur event Load event
 - Scroll event
 - Resize event
- Class and Objects
- DOM Objects

Project Work



JQUERY

- Introduction & History of JQuery
- Using JQ manually
- Using JQ CDN
 JO Effects
- JQ Effects

CURRICULUM

- Change Text using JQChange CSS using JQ
 - Change C33 using JQ

Project Work

• Working with Decision Making

BOOTSTRAP

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- Getting started with Bootstrap
- Understanding predefined classes of bootstrap
- Carousel in Bootstrap

• Grid system in Bootstrap

Working with Loop

Focus and Blur event

Project Work

Click and DoubleClick event

Using JQuery based plugins

JQ Events

Key event

On Event

Mouse event

Understanding Bootstrap with Project Work

Project Work

GOOGLE SHEET

- Working with Google Sheet
- Get the form data from website to sheets

()

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GITHUB

Version Control System

SERVER & HOSTING

- Understanding server
- Deploying & Hosting using Github pages
- Deploying & Hosting using Netlify

AI Tools

- Understanding AI
- Make the website automatically
- Dive into the world of AI

Project Work





What You Will Learn



26



Course Overview:

Django is a high-level Python web framework designed for rapid development of secure and maintainable websites. Known for its "batteries-included" approach, it provides a wide range of built-in features for common web development tasks, including user authentication, content administration, and site maps. Django's emphasis on reusability and "pluggability" of components, its low coupling, and its less code philosophy streamline web application development, making it a popular choice for developers seeking an efficient and scalable solution for complex, data-driven websites.

DJANGO



Django Introduction

- Introduction to Django
- History of Django
- Scope and features of Django
- What is Server
- Http Request and Http response
- Need of Web Application and Web Framework
- Django installation

First Django Project

- Django Architecture
- Understanding Model/View/Template





- Creating First Django Project
- Understanding __init__.py
- Understanding settings.py
- Understanding wsgi.py
- Understanding manage.py
- Running django development server

Creating First Django App

- Creating first django app
- Understanding views.py
- Understanding models.py
- Understanding admin.py

View and Url Configuration

- Understanding view layer
- Defining the view function in views.py
- Understanding Response and Request Classes and Objects
- · Request a web page via url
- Rendering a web page via view function

Templates

- Creating templates
- Rendering HTTP response to templates
- Passing content data to templates
- Django template language
- Template tags
- Filter tags







- Filter in templates
- Template inheritance

Django Administration

- Creating super user for admin site
- Activating the admin interface using admin site

Model

- Defining model using Python class
- Understanding Django ORM
- Initializing Model using makemigrations
- Migration model using migrate
- Registering model in settings.py
- Registering model in admin site

Forms

- Form basics
- get and post Methods
- Form Validation
- Rendering Forms
- Model Forms
- Inserting data from Database
- Updating data from Database
- Deleting data from Database
- Reading data from Database



Working with Static Files

- Creating static directory
- Loading static files
- Using JavaScript files
- Using CSS files
- Using Image files

Django Authentication and Authorization

- User Registration
- User Login
- User Authentication
- User Authorization
- User View Profile
- User Edit Profile
- Change Password
- User Logout
- User Forgot Password

File uploading

Email sending

Django session management

Django cookie management

Project Work







Certificates



Upon completion of Course/Program, you will receive certificate from Incapp. This certificate validates your skills as an expert in the technology.









What our students say about us





What our students say about us



Anoop Shankar 1 review

★ ★ ★ ★ ★ 2 months ago

Being the student of INCAPP is the best start to be the best in your field. Rahul Sir himself is mentoring many of us so that we as a developer will lead the IT sector. Here in INCAPP each one of you will be nurtured for the better future.



bulbul Dwivedi 2 reviews

★★★★★ 3 months ago

Incapp excellent communication skills with students A great review of python course essentials for programming in Incapp & a better understanding of coding, testing & applying style guidelines as per thoroughly given by instructor Mr. Praveen Chauhan



Tanu Kumari 2 reviews

***** 11 months ago

The coaching provided by Incapp for Web designing was exceptional. The coach's expertise in Java was evident throughout the coaching sessions. The coaching style was effective in breaking down complex concepts into easily understandable parts. The coach provided clear explanations and examples, making it easier to grasp. Overall, I am highly satisfied with the coaching provided by Incapp for Web designing.

Aditya Kaushik 1 review

***** a week ago NEW

I did Core Java and data. Structure and algorithm. Algorithm In Incapp. by "Rahul chauhan "Sir It has really helped me understand.. the Care Concept in my Course and I fell more Confident in what I am doing Thanks Rahul chauhan

& many more

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