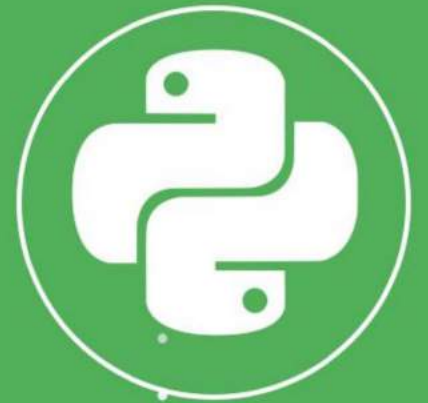


# PYTHON



PYTHON

# About Us

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Edustrom is an initiative of CSK Technologies OPC Pvt. Ltd, established in the year 2015, headquartered at Delhi, The main activity of Edustrom is providing training on Information Technology, which is delivered to its audience all over the Country via Computer Based Training Programs, Onsite Training Programs and Company Owned learning centers. We are a fast growing group of Individual .expertise in IT Training & Placement.

# Our Aim

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We aim to impart practical knowledge on Laravel to the budding technical workforce of the country. As we know that Designing and Development of Web Applications is the need of the day, and people with such skills are very much in demand. We moto to bridge the demand and supply gap of Professional C Programmers.

# Achievements

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- Trained more than 350 Students in Delhi only.
- Having Classroom Training Locations and Presence Across Delhi.
- Ina short span of time we reached to more than 20 corporate clients across Delhi
- Conducted Training Programs for many Premier Institutes.

# Course Content

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## > About Course

About course

In this course, you will explore everything about the real world usage of the Python Programming Language and script codes with a tilt towards Artificial Intelligence.

## I Syllabus

### What will you learn?

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#### 1.Introduction

- Course Introduction
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- The tools you need
- Installing Python 3 and an IDE (Windows, Mac, and Linux)

## 2.The Basics: Small Programs

- Your First Python Code
- Your First Python Program

## 3.The Basics: Data Type

- Variables
- Simple Types: Integers, Strings, and Floats
- List Types
- Type Attributes
- How to Find Out What Code You Need
- Dictionary Types
- Tuple Types
- How to Use Datatypes in the Real World?

## 4.The Basics: Operations with Data Types

- Python Shell and Terminal Tip
- More Operations with Lists
- Accessing List Items
- Accessing List Slices
- Accessing Items and Slices with Negative Indexes
- Accessing Characters and Slices in Strings
- Accessing Items in Dictionaries

## 5.The Basics: Functions and Conditionals

- Creating Your Own Functions
  - Print or Return?
  - Intro to Conditionals
  - If Conditional
  - Conditional Explained Line by Line
  - More on Conditionals
  - Elif Conditionals
  - White Space
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## 6.The Basics: Processing User Input

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- User Input
- String Formatting
- String Formatting with Multiple Variables

## 7.The Basics: Loops

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- For Loops: How and Why
- Looping Through a Dictionary
- While Loops: How and Why

## 8.Building a Program

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- Problem Statement
- Approaching the Problem
- Building the Maker Function
- Constructing the Loop
- Making the Output User-Friendly

## 9.List Comprehensions

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- Simple List Comprehension
- List Comprehension with If Conditional
- List Comprehension with If-Else Conditional

## 10.More on Functions

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- Functions with Multiple Arguments
- Default and Non-default Parameters and Keyword and Non-keyword Arguments
- Functions with an Arbitrary Number of Non-keyword Arguments
- Functions with an Arbitrary Number of Keyword Arguments

## 11.File Processing

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- The Concept of Processing Files in Python
  - Reading Text From a File
  - File Cursor
  - Closing a File
  - Opening Files Using "with"
  - Different Filepaths
  - Writing Text to a File
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- Appending Text to an Existing File

## 12.Imported Modules

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- Builtin Modules
- Standard Python Modules
- Third-Party Modules

## 13.Application 1: Build an Interactive English Dictionary

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- Interactive English Dictionary - How The Output Will Look Like
- The Data Source
- Loading JSON Data
- Returning the Definition of a Word
- Taking Into Account Bad Words
- Implementing Case Sensitivity
- Similarity Ratio Between Two Words
- Best Matches out of a List of Words
- Recommending the Best Match
- Confirmation from the User
- Optimizing the Final Output

## 14.Project Exercise: Python and MYSQL

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- Intro to the App
- Making the App

## 15.Data Analysis with Pandas

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- What is Pandas?
  - Getting Started with Pandas
  - Getting Started with Jupyter Notebooks
  - Loading CSV Files
  - Loading Excel Files
  - Loading Text Files
  - Set Header Row
  - Set Column Names
  - Set Index Column
  - Indexing and Slicing
    - Deleting Columns and Rows
    - Updating and Adding new Columns and Rows
    - Example: Geocoding Addresses with Pandas and Geopy
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## 16.Numpy

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- What is Numpy?
- Convert Images to Numpy Arrays
- Indexing, Slicing, and Iterating Numpy Arrays
- Stacking and Splitting Numpy Arrays

## 17.Application 2: Create Webmaps with Python and Folium

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- Web Map - How The Output Will Look Like
- The Basemap
- Adding Points
- Adding Multiple Points
- Adding Points from Files
- Popup Windows on Map
- Color Points
- GeoJson Data
- Adding a GeoJson Polygon Layer
- Choropleth Map
- Layer Control Panel

## 18.Fixing Programming Errors

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- Syntax Errors
- Runtime Errors
- How to Fix Difficult Errors
- Good Programming Questions
- Error Handling

## 19.Application 3: Build a Website Blocker

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- Website Blocker - How The Output Will Look Like
- Application Architecture
- Setting up the Script
- Setting up the Infinite Loop
- Implementing the First Part
- Implementing the Second Part
- Scheduling the Python Program on Windows
- Scheduling the Python Program on Mac and Linux

## 20.Application 4: Build a Personal Website with Python and Flask

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- Personal Website - How The Output Will Look Like
  - Your First Website Preview
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- HTML Templates
- Navigation Menu
- CSS Styling
- Creating a Python Virtual Environment
- Deploying the Website to a Live Server
- Maintaining the Live Website

## 21 .Graphical User Interfaces with Tkinter

- Introduction to Tkinter
- Setting up a GUI with Widgets
- Connecting GUI Widgets with Callback Functions

## 22.Interacting with Databases

- Introduction to "Python with Databases"
- Connecting and Inserting Data to SQLite via Python
- Selecting, Inserting, Deleting, and Updating SQLite Records
- Introduction to PostgreSQL Psycopg2
- Selecting, Inserting, Deleting, and Updating PostgreSQL Records

## 23.Application 5: Build a Desktop Database Application

- Desktop Database App - How The Output Will Look Like
- User Interface Design
- Frontend Interface
- Backend
- Connecting the Frontend to the Backend, Part 1
- Connecting the Frontend to the Backend, Part 2
- Creating a Standalone Executable Version of the Program

## 24.Object Oriented Programming

- Object Oriented Programming Explained
- Turning this Application into OOP Style, Part 1
- Turning this Application into OOP Style, Part 2
- Creating a Bank Account Object
- Inheritance
- OOP Glossary

## 25.Python for Image and Video Processing with OpenCV

- Introduction
- Loading, Displaying, Resizing, and Writing Images
- Solution with Explanations

- Face Detection
- Capturing Video

## 26. Application 6: Build Webcam Motion Detector - How The a Webcam Motion Detector

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- Output Will Look Like
- Detecting Webcam Objects
- Capturing Motion Time

## 27. Interactive Data Visualization with Bokeh

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- Introduction to Bokeh
- Your First Bokeh Plot
- Using Bokeh with Pandas
- Time-series Plots
- More Visualization Examples with Bokeh
- Plotting Time Intervals of the Motion Detector
- Hover Tool Implementation

## 28. Webscraping with Python Beautiful Soup

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- Section Introduction
- The Concept Behind Webscraping
- Webscraping Example

## 29. Application 7: Scrape Real Estate Property Data from the Web

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- Scraped Website Data - How The Output Will Look Like
- Loading the Webpage in Python
- Extracting "div" Tags
- Extracting Addresses and Property Details
- Extracting Elements without Unique Identifiers
- Saving the Extracted Data in CSV Files
- Crawling Through Webpages

## 30. Application 8: Build a Web Based Financial Graph

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- Web-based Financial Graph - How The Output Will Look Like
  - Downloading Datasets with Python
  - Stock Market Data
  - Stock Market Data Candlestick Charts
  - Candlestick Charts with Bokeh Quadrants
  - Candlestick Charts with Bokeh Rectangles
  - Candlestick Segments
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- Stylizing the Chart
- The Concept Behind Embedding Bokeh Charts in a Flask Webpage
- Embedding the Bokeh Chart in a Webpage
- Deploying the Chart Website to a Live Server

## 31 .Application 9: Build a Data Collector Web App with PostGreSQL and Flask

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- Data Collector Web App - How The Output Will Look Like
- PostGreSQL Database Web App with Flask: Steps
- Frontend: HTML Part
- Frontend: CSS Part
- Backend: Getting User Input
- Backend: The PostGreSQL Database Model
- Backend: Storing User Data to the Database
- Backend: Emailing Database Values Back to the User
- Backend: Sending Statistics to Users
- Deploying the Web Application to a Live Server

### > Our Training Approach

We are not limited to any number of classes or day to complete the whole course, so basically time duration depends on batch strength and their learning skills. However the average course duration is 2.5 months.

## Why Python?

- Python is beginner's friendly
- Python is easy to understand
- Python is flexible
- Python has great career opportunities
- Python works for various applications

## Training Features

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- Course proceeds as per student learning skills and catching power.
  - Course repeat facility for all students for FREE.
  - Theory and Practical classes held with every session.
  - Per class 1-2 hours session.
  - Students will be given adequate time to revise and practice the concepts learned in class.
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- This Training Program covers Presentations, Real life Case Studies, Extensive Live Practical Demonstrations. An Experienced Faculty with a minimum experience of 3 Years will be available to provide you training and in order to help you start a career in Web Development.
- In this training program, students will get Assignments & Practical as homework which will help them to explore the already learned concepts & to guide them towards a path for research and development on each domain
- Focused on practical solutions to real-world development problems.

## Why Edustrom ??

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- We have been in the training sector for last 3 years
- Fastest growing in Delhi for IT training and placement.
- Course repeat facility for all students for FREE.
- No Complain from students and companies so far.
- We are honest with our training and placement commitment.
- We have our own IT Job portal.
- We have more than 55 IT Companies registered with us.
- And 250/350 around programmers have been placed by us.

## Job Opportunities

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- Web Developer
- Software Developer
- Online Application Engineer
- PHP/MySQL Coder
- Work as a Freelancer
- Mobile Application Developer

## Course Fee

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Amount: Rs.10000

Note: Students are required to bring their Laptop for Practical Classes.

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## Our Other Courses



Graphic Design



Web Design



My SQL



Laravel



Java



PHP



iOS



Digital Marketing

## Contact Us



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