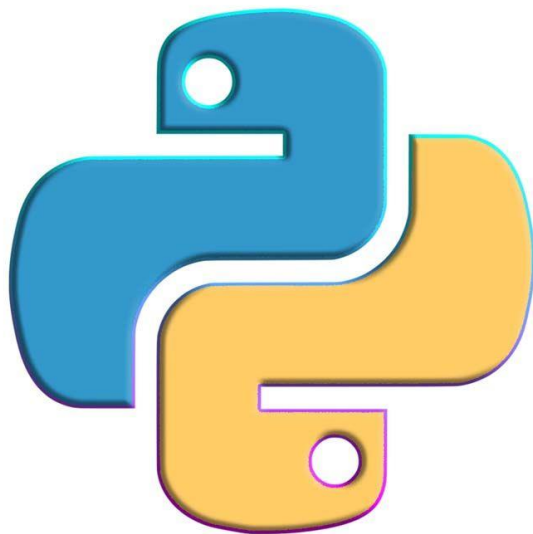




Creative { Coding }

PYTHON

Ages 12+ yrs



Your learning path with NotchUp

Level 1



**GAME
DEVELOPMENT**

**Ages 8-12
48 CLASSES**



**APP
DEVELOPMENT**

**Ages 9-15
56 CLASSES**

Level 2



**WEB
DEVELOPMENT**

**Ages 10+
48 + 16 CLASSES**



PYTHON

**Ages 12+
48 CLASSES**

Level 3



**ADVANCED PYTHON WITH
ARTIFICIAL INTELLIGENCE**

**Ages 12+
48 CLASSES**

Plan Details

BASIC	PRO	ADVANCED
<div><div>₹ 4,400</div><div>15%Off</div><div>₹ 5,200</div></div> <div>GET VOUCHER WORTH<div>₹ 500</div></div> <div>EFFECTIVE PRICE<div>₹ 488/class</div></div> <div>8 Classes</div> <div><div>✓ 1-on-1 Live Classes</div><div>✓ Covers basics of Python (Module 1)</div><div>✓ 1 detailed assessment report</div><div>✓ Additional after class projects</div></div>	<div><div>₹ 25,680</div><div>18%Off</div><div>₹ 31,200</div></div> <div>GET VOUCHER WORTH<div>₹ 7,000</div></div> <div>EFFECTIVE PRICE<div>₹ 389/class</div></div> <div>48 Classes</div> <div><div>✓ 1-on-1 Live Classes</div><div>✓ Complete Python (Module 1 to 6)</div><div>✓ 6 detailed assessment report</div><div>✓ Additional after class projects</div><div>✓ 1-year access* to webinars & online forums</div><div>✓ 3 Free Revision Sessions</div><div>✓ Python Developer Certification</div></div>	<div><div>₹ 43,200</div><div>31%Off</div><div>₹ 62,400</div></div> <div>GET VOUCHER WORTH<div>₹ 14,000</div></div> <div>EFFECTIVE PRICE<div>₹ 304/class</div></div> <div>96 Classes</div> <div><div>✓ 1-on-1 Live Classes</div><div>✓ Complete Python & Artificial Intelligence (Module 1 to 12)</div><div>✓ 12 assessment reports</div><div>✓ Additional after class projects</div><div>✓ Unlimited access* to webinars & online forums</div><div>✓ 5 Free Revision Sessions</div><div>✓ Python & AI Developer Certification</div></div>

Cancel Anytime. 100% Refund. No questions asked

* Limited time offer



Course Details



PYTHON

Students build computer applications + games using beginner to intermediate level of programming concepts on Python. Coding will be on Google Collab notebook + Python IDLE

CURRICULUM – 48 sessions



- Intro to Python
- Variables and Data Types
- Keywords & Type Conversion
- Turtle Module
- Control Statements
- Operators
- Introduction to Loops
- String manipulation
- Jumping Statements
- List, tuples and sets
- Functions
- Reading and writing
- File handling
- Programming practice
- Arguments & Recursion
- Introduction to datetime

SKILLS DEVELOPED



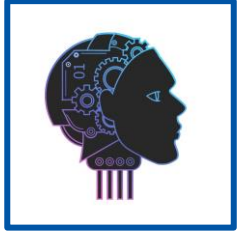
- Pattern Recognition
- Visual Storytelling
- Logical Thinking
- Synchronization
- Abstraction
- Algorithm Design
- Decomposition
- Creative Thinking

OUTPUT



- Hangman
- Tic Tac Toe Game
- Student Database Management system
- Turtle Race Game
- Flappy Bird
- Maze Game
- Tetris
- Pac Man
- Snake Game

Course Details



ARTIFICIAL INTELLIGENCE

Students build on their skills on Python and develop projects that mimic real life application of use of Artificial Intelligence and Machine learning in day to day life



CURRICULUM – 48 sessions

- Intro to Tkinter module
- Intro to AI and ML
- Introduction to Libraries
- Intro to Numpy
- Intro to Pandas
- Intro to SciKit Learn
- Exploratory Data Analysis
- Classification vs Regression
- Linear vs Logistic Regression
- Decision Trees, Naïve Bayes
- Image Recognition
- Sound Recognition
- Clustering Algorithms
- Computer Vision
- Natural Language Processing
- Recommendation Engine



SKILLS DEVELOPED

- Pattern Recognition
- Visual Storytelling
- Logical Thinking
- Synchronization
- Abstraction
- Algorithm Design
- Decomposition
- Creative Thinking



OUTPUT

- Covid Dataset Analysis
- Spam Detection Software
- AI Enables Computer Vision Game
- Invisibility Cloak
- Sentiment Analysis
- Twitter Feed Analysis
- AI Personal Assistant
- Spotify Recommendation Engine

Why NotchUp



Adaptive Curriculum

Every child is different, so is their learning path



LIVE Online sessions in your **preferred language**



Flexible & Safe - Choose your preferred day/time, unlimited pauses



Gamified with rewards to keep children excited and engaged



Monthly detailed **progress report** to track your child's performance



Continuous **online support** for doubt resolution



Certification and courses designed by IIT-D, IIM-A alumni



High Customer Satisfaction: 90% parents/ students give us **5 Star Rating**



100% Money-back Guarantee on all online courses

Why Coding is Important

CODING HELPS IN IMPROVING ACADEMIC PERFORMANCE



MATHS SKILLS

Coding helps apply math to the real world, making it more fun and improving math concepts



COMMUNICATION

Coding is like learning a new language, it strengthens both verbal and written skills



CONCENTRATION

Coding requires tracking of multiple things at the same time, automatically improving concentration levels



CREATIVITY

Coding helps to hone creative thinking skills of students as they brainstorm ideas to create meaningful projects

IT'S NEVER TOO EARLY TO START CODING



"We want every child in the world to be excited about the many possibilities coding can unlock for themselves, for their communities and for their societies"



"I taught myself how to program computers when I was a kid, bought my first computer when I was **10**, and sold my first commercial program when I was 12"



Sundar Pichai, CEO of Google and Alphabet



Elon Musk, Founder of Tesla and SpaceX



Class Wise Topics (1/3)

Class #

Topic Covered

Class #

Topic Covered

MODULE 1 – PYTHON BASICS

TRIAL

Intro to Python Programming

1

Intro + Variables + Datatypes

2

Keywords and Operators

3

Operators Part 2

4

Turtle Module Part 1

5

Turtle Module Part 2

6

Turtle Module Part 3

7

Programming Practice

8

Exploring Shapes project

MODULE 3 - DATATYPES

17

Strings

18

List & Matrix manipulation

19

Tuple

20

Set

21

Intro to pygame Module

22

Predictive Cricket Project

23

Programming Practice

24

Maze + Flappy Bird Game

MODULE 2 -FLOW CONTROL STATEMENT

9

Intro to Control Statement

10

Decision Control Statement

11

Iteration Statement

12

Jumping Statements & Pattern

13

Introduction to functions

14

Turtle Race Game

15

Programming Practice

16

Decision Making Tree

MODULE 4 - FUNCTIONS

25

Date Time Module

26

Types of Functions

27

Concept of Arguments

28

Recursive Functions

29

Tetris Game

30

Programming Practice

31

Mid Course Revision

32

Database Management System

Class Wise Topics (2/3)

Class #

Topic Covered

Class #

Topic Covered

MODULE 5 – MODULES IN PYTHON

33 Collections Module

34 Math and OS Module

35 Matplot Lib Module

36 Cannon + Memory Game

37 Programming Practice

38 PAC Man Game

39 Concept Revision Test

40 Tic Tac Toe Project

MODULE 7– INTRO TO TKINTER

49 Labels and Buttons

50 Radio Button + Project

51 Frames, List Box, Menu

52 Temperature converter

53 Menu, scroll bar + text

54 Canvas + Scale

55 Checkbox + msg + spin

56 Form Validation

MODULE 6 – FILE HANDLING

41 Introduction to File Handling

42 Various Opening Modes in File

43 Dictionary Date Type 1

44 Dictionary Date Type 1

45 Hangman game

46 Programming Practice

47 Snake Game Part 1

48 Snake Game Part 2

MODULE 8 – INTRO TO AI AND DATA

57 Supervised vs Unsupervised

58 Introduction to Numpy

59 Operations in Numpy

60 Intro to Pandas

61 Data Visualization using Pandas

62 Matplot lib + Seaborn

63 Using Datasets

64 Covid Data Analysis

Class Wise Topics (3/3)

Class #

Topic Covered

Class #

Topic Covered

MODULE 9 – ALGORITHMS IN ML

65 Revision to Data Analysis

66 Classification vs Regression

67 Introduction to Scikit learn

68 ML Algorithms Part 1

69 ML Algorithms Part 2

70 ML Algorithms Part 3

71 Regression Project using Data

72 Spam Detection Classifier

MODULE 11 – NATURAL LANGUAGE

81 Revision

82 Introduction to NLP

83 Relevant Libraries for Text

84 NLP Deep Dive Part 1

85 NLP Deep Dive Part 2

86 NLP Deep Dive Part 3

87 Sentiment Analysis

88 Twitter Feed Analysis

MODULE 10 – COMPUTER VISION

73 Revision

74 Image Recognition Part 1

75 Image Recognition Part 2

76 Clustering Algorithms

77 Sound Recognition

78 Computer Vision Part 1

79 Computer Vision Part 2

80 AI Enabled Game

MODULE 12 – UNSUPERVIZED LEARNING

89 Revision

90 Using APIs with ML Projects

91 Unsupervised Learning Part 1

92 Unsupervised Learning Part 2

93 Unsupervised Learning Part 3

94 AI Personal Assistant

95 Spotify Recommender System

96 Spotify Recommender System