

Experience a learning path that resonates with you. Learn full-stack development, Cloud computing, DevOps, Automation, Artificial intelligence and much more ...



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Community

Classroom (Bengaluru) | Online (Global) | On-premise (Corporate)

## Section 1: Python programming

### Unit 1: Python Basics

1. Python Syntax
2. Features of Python
3. Variables
4. Operators
5. Basic input output statements
6. Keywords

### Unit 2: Python Data Structures

1. Numbers: int, float, complex
2. Strings
3. List
4. Tuple
5. Dictionary
6. Set

### Unit 3: Control-flow statements

1. Decision making with if conditions
2. if-elif-else
3. for loop
4. while loop
5. break and continue
6. for else loop
7. Comprehensions



### Unit 4: Functional programming

1. Introduction to functions
2. Namespaces and scope
3. return keyword
4. Parameters and positional arguments
5. lambda function
6. map, filter and reduce

### Unit 5: Exception handling

1. Errors and exceptions
2. Handling exceptions with: try, except, else and finally

3. Causing exceptions: raise and assert
4. Create your own exception
5. Logging
6. Logging levels and configuration

## **Unit 6: File handling**

1. Introduction to files
2. File objects and modes
3. Opening and closing files
4. Read and write operations
5. Context manager – with

## **Unit 7: Working with directories**

1. Directories and file path
2. os module
3. Making, changing and deleting directories
4. Listing directory and navigating file systems

## **Unit 8: Regular expressions**

1. Introduction to re module
2. Special characters for pattern making
3. re functions and flags
4. String matching and pattern filtering
5. Greedy and non-greedy match
6. Simple character matches
7. Special characters
8. Data extraction

## **Unit 9: Classes and Objects**

1. Object oriented programming
2. What are classes?
3. Understanding `__init__` and `self`
4. Instance and class variables
5. Inheritance
6. Overriding rules
7. Method overloading
8. Operator Overloading

## **Unit 10: Database connectivity**

1. Basics of SQL
2. Connecting to a database
3. Retrieving data
4. Inserting, updating and deleting data
5. Using Python libraries for database access – PyMySQL

## **Unit 11: NumPy and Pandas**

1. Introduction to NumPy
2. Array data structure
3. Array operations and indexing
4. Pandas DataFrame operations
5. Data cleaning and manipulation with Pandas



## About the trainer

Carrying an experience of over 10 years, I pride myself for experiential learning approach. A training path that consists of visual learning, hands-on learning, project work, periodic assessments and mentorship. With us, you can be sure about getting the knowledge, certificate and placement.



■ **Ram Kumar**

- ✓ **University: UVCE, Bangalore**
- ✓ 100+ Corporate Batches
- ✓ Python Certified Professional
- ✓ Certified Kubernetes Administrator
- ✓ **Last Employer: Amazon, India**
- ✓ 3000+ Students
- ✓ AWS Certified Cloud Architect
- ✓ AWS Certified Machine Learning

## Top clients

