Certified Software Developer Advance (Python)

GSDC
Global Skill Development Council

CSDA

PYTHON

CERTIFIED

By obtaining GSDC Certifications, both current and aspiring software professionals can enhance their proficiency as members of software development teams and write sustainable code.

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ABOUT CERTIFICATION

Possessing a GSDC certificate enables individuals to apply a full-stack approach to actual software development projects.

Java is among the most sought-after programming languages and is versatile enough to generate software for various platforms. Applications coded in Java can operate on multiple operating systems, including Windows, Linux, and Mac OS. Java is mainly utilized in back-end development projects, such as big data technologies, mobile/desktop computing, and Android development, among others.

OBJECTIVES

1. To know the working understanding of software development.
2. To know the tools and best practices in software development.
3. To enhance your programming and technical skills.
4. How to write error-free code.
5. How to test and debug software and web application.
6. Use of the latest tools and concepts in application development.

Our Accreditation:

COURSE SYLLABUS

1. **Introduction to Python, Python Basics**
   - Features and uses of Python
   - Program execution
   - Installation of IDE
   - Identifiers and keywords
   - Types of comments
   - Data types
   - Variables
   - Arithmetic operators
   - Assignment operators
   - Input and print statements

2. **Strings, Decision Control Statements**
   - Definition of string
   - Operations accessing string elements
   - Relational operators
   - Logical operators
   - Conditional expressions
   - If, If..else, If..elif

3. **Repetition Statements and Console Input-Output**
   - Use of while and for
   - Break and continue
   - Pass and else statements
   - Formatted input and output

4. **Lists, Tuples, Sets, Dictionary**
   - Use of while and for
   - Break and continue
   - Pass and else statements
   - Formatted input and output

5. **Functions and Recursion, Functional Programming and Lambda Functions**
   - Read-write operations
   - With the keyword
   - File opening modes
   - Moving within a file
   - Serialization
   - File and directory operations
   - Importing a module
   - Variations of import
   - Third-party packages

6. **File Input-Output and Modules**
   - Read-write operations
   - With the keyword
   - File opening modes
   - Moving within a file
   - Serialization
   - File and directory operations
   - Importing a module
   - Variations of import
   - Third-party packages

7. **Classes and Objects**
   - Class variables
   - Methods
   - Operator overloading
   - Reuse
   - Containership
   - Inheritance

8. **Exception Handling, Iterators and Generators**
   - Iterables and iterators
   - Syntax errors and exceptions for:
   - try-except
   - else
   - finally blocks

9. **Data Analysis with Pandas**
   - Installing Pandas
   - Loading files
   - CSV files
   - JSON files
   - Dataframes

10. **Numeric and Scientific Computing using NumPy**
    - NumPy: Introduction
    - OpenCV
    - Images and NumPy Arrays

11. **Graphical User Interfaces with Tkinter**
    - Introduction to Tkinter
    - Setting up a GUI with widgets
    - Connecting GUI widgets with callback functions

12. **Interacting with Databases**
    - SQLite: Introduction
    - Connecting and inserting data to SQLite via Python
    - Selecting, deleting, and updating SQLite records

GSDC Technical Advisory Board :

The GSDC is the leading certification association which brings together innovative organizations and founding thought-leaders as Technical Advisors from over 40 countries to design curriculum on Blockchain, Devops, Six Sigma & Agile Certifications.

Our Future Information
Target Audience

GSDC Certification is for all those who want to prove they can apply their core Java developer skills into real-life projects.

Examples of typical job titles with 3-5 years of experience:

- Senior Software Developer
- Senior Software Engineer
- Senior Web Developer
- Senior Android Developer
- Senior Front-end Developer
- Senior Full-Stack Developer

Find out more online at
www.gsdcouncil.org