Meghnad Desai
Academy of Economics

JANKI DEVI MEMORIAL COLLEGE
in collaboration with MDAE *presents*

CERTIFICATE COURSE ON

INTRODUCTION TO PYTHON PROGRAMMING

Your first step towards a career in Data Science
30 Hours Live Online Certification & Industry Project

Course Fees| ₹900

Course details:

Starting 26th February, 2022
Saturday & Sunday: 4-6 PM

Instructor:

Mr. Pravesh Tiwari
Manager in L&T financial services

Course Patron
Prof. Swati Pal
Principal, Janki Devi Memorial College

Course Coordinators
Dr. Shilpa Chaudhary
Dr Devendra Kumar
Mr. Pankaj Khandelwal

USE CODE **JDMCP** to get Course @ **Rs 900**

Contact Us:
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JANKI DEVI MEMORIAL COLLEGE
in collaboration with
MEGHNAD DESAI ACADEMY OF ECONOMICS
(MDAE)

Certificate Program on
Introduction to Python Programming
Take Your First Step Towards Being A Python Programmer

A 30 hours instructor led, live and interactive certificate program on Introduction to Python Programming Take Your First Step Towards Being A Python Programmer was conducted by Meghnad Desai Academy of Economics in collaboration with Janki Devi Memorial College.Mr. **Pravesh S. Tiwari** Manager in L&T financial services is the resource person for the program. Dr. Shilpa Chaudhary, Assistant Professor, Department of Economics, Janki Devi Memorial College was the course coordinator.
The course content was covered over 12 sessions, the duration of each session being 2 hours. The program was conducted over the weekends. The objective of the program will to introduce participants to the general principles of programming as also serve as a detailed introduction to the Python programming language. Participants will learn how to code in Python. It will serve as a first crucial step towards a career in data analysis and data science.

A total of 31students registered for the certificate program. Those who are first-timers to programming will obtain a strong foundation to build a career in programming.Those who are already familiar with other programming languages will be able to quickly transition to programming in Python. Students will get comfortable with handling text corpuses.Students will be able to satisfy the Python programming pre-requisite for advanced Data Science courses involving Python coding.They will be equipped to commence work on achieving a Python coding rank with online coding websites such as Hackerrank. Definitely money invested by students must have given more than 10 times a return. Amazing session!!!

Session-Wise Course Curriculum

Session 1

- A logical view of your computer
    - What does it mean to write a computer program?
    - What are the basic things that a computer program does?

- Integrated Development Environments (IDEs)
    - Commonly used Python IDEs
    - The IDLE IDE

- A simple program in Python
    - Printing to the screen
    - Accepting input from the keyboard
    - Saving the python program as a source code file
    - The instructor will develop the code in class
    - We will inspect the code and identify various components therein
        - Variables
        - Data types
        - Constants
        - Arithmetic expressions
        - The assignment operator
        - Python functions

- The three common ways to run your Python code
    - Running code in the IDLE shell
    - Running a source code file from IDLE
    - Running a source code file from the command prompt

- Session 2

- Basic Python data types and variables
    - Integer
    - Float
    - String
    - Boolean
    - Declaring variables of the above types
    - The Python type function
    - Return to the logical view of your computer's memory to understand variable allocation
    - Understanding the need for the NoneType in Python
- An in-depth look at the boolean type
- Python operators
    - Arithmetic operators
    - Relational operators

    - Assignment operators
    - Logical operators
    - Identity operators
    - Binary (bitwise) operators

- Session 3

- Python in-built functions – an introduction
    - The Python print function
    - The Python input statement
    - sys.argv
- The string data type
    - String indexing
    - String functions
    - Unicode strings
    - Escape sequences in strings

- Session 4

- The if statement
    - What is an if statement
    - The philosophy behind an if statement

    - Variations and nuances of the if statement
        - if
        - if…else
        - if…elif…else
        - Nested if's
    - A practical example demonstrating if statements and their usage
- Python in-built functions
    - abs, float, int, len, str, max, min, print, input, range, round, sorted, sum, asci, chr, list, set, type, any, all, math.pow, math.sqrt, math.factorial, math.trunc, math.pi

- Session 5

- The Python list type
    - Iterable types
    - Subscriptable/indexable types
    - Mutable type
    - The list data type
    - Creation of lists, list comprehension
    - List type methods

- Session 6

- Programming Loops
    - Why do we need to code loops
    - For loops
    - While loops
    - Termination of loops, the break statement
    - The continue statement
    - Develop a Python program to implement a loop

- Session 7

- Functions
    - Defining your own functions
        - Function declaration
        - Function name
        - Function arguments
        - Named and unnamed arguments
        - Function body
        - Return value(s)
    - Organizing your code
        - Placing your functions in distinct source code files (packages)
    - Develop a Python program using a function we will create

- Session 8

- The NumPy package
    - Numpy arrays
    - Numpy mathematical functions

- Session 9

- The pandas package
    - Working with excel and csv files in Python
    - Importing data from an excel sheet into Python and exporting data from Python to excel
    - Assigning column names, extracting individual rows and columns
    - Dealing with missing data
    - Summarizing data

List of students Enrolled

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