Python STTP

It will be a complete hands on session starting with a little presentation in the beginning, through out the session focus on each and every participant attending the workshop is intended so that their goal of learning Python and its practical implementation is fulfilled.

Each day will be of 6 Hours duration.

Prerequisites: 1.) Laptop with Python 2.7 and GitHub(https:// windows.github.com/) installed. 2.) Basic Knowledge of Object Oriented Concepts

Linux and Mac users already have Python and Github installed in their PCs.

IMP NOTE: Once the installation is done open Command Prompt and type 'Python', if it gives an error then Python is not properly installed, so now set the environment variable for Python same as it is done in Java and after that do the same thing to check for Git also by typing Git in terminal.

Day 1

Basics of Python

• Introduction to Python. Different versions of Python.
• Why use Python and Where it is used ?
• How to launch and run Python by different methods.
• Quick walk through of Data Types and basic of Python. • Classes, Error Handling, Algorithmic Complexities.

• Iterators, generators and context managers.
• Dealing with File Systems
• Interactive exercise along with hand's on sessions.

End of Day 1

DAY 2

Libraries in Python

- Introduction to libraries in Python
- Overview of Django and Flask
- Introduction to NoSQL
- Introduction to MongoDB
- Installing and Configuring MongoDB
- Installing and configuring Django
- Use cases of Django + MongoDB

End of Day 2

DAY 3

Applications in Python

- Building a WebApp using Django + MongoDB.
- Understanding how Python works on the cloud.
- Re-configuring the WebApp accordingly.
- Understanding the basics of Cloud Computing.
- Understanding how to configure cloud services for WebApp
- Pushing the WebApp to the cloud.

End of Day 3

DAY 4

Version Control System & Networking

- What is Version Control System?
- Understanding VCS.
- Why VCS is required and goals of it.
- Understanding Git.
- Configuring Git on machine.
- Learn how to use Git.
- Building a Native App implementing Git and Libraries.
- Introduction to Network Libraries in Python
- Introduction to Twisted Library for networking.
- Installing, configuring and developing using Twisted in Python
- Various Network Anomalies in Python and their solution.
- Interactive exercise along with hand's on sessions.
- Extensive usage of Git by collaborating on a project

End of Day 4

DAY 5

Machine Learning

- Introduction to Machine Learning.
- How Machine Learning and Python are deeply associated.
- Types of Machine Learning.

- Developing Algorithms in Machine Learning
- Future of Machine Learning.
- Use Cases of Machine Learning.
- Introduction to Internet of Things [IoT]
- How Machine Learning and IoT walk together.
- Future of both Machine Learning and IoT together.
- Lightning Talks.

End of Day 5