PYTHON PROGRAMMING COURSE CURRICULUM

1. INTRODUCTION TO PROGRAMMING IN PYTHON
    1. Python Language Introduction
    2. Data Types
    3. Collection Data Types
    4. Control Structures and Functions
    5. Modules
    6. Objects and Classes
    7. File Handling
    8. Advanced Programming Techniques
    9. Debugging, Profiling and Testing
    10. Multi-Processing and Multi-Threading

2. APPLICATION DEVELOPMENT IN PYTHON
    1. Database Programming
    2. FTP, Email
    3. Web Client Programming
    4. Web Server Programming
    5. Web Database Programming
    6. XML Programming
    7. Django – Python Web application development framework

3. NETWORKED SYSTEMS PROGRAMMING IN PYTHON
    1. Introduction to Client/Server Networking
    2. User Datagram Protocol
    3. Transfer Control Protocol
    4. TLS and SSL
    5. Caches and Map-Reduce
    6. Screen Scraping and Web Applications
    7. Overview of SMTP, POP, IMAP, Telnet, FTP and RPC protocols

4. MACHINE LEARNING
    1. Data Preprocessing
    2. Understanding Regression
    3. Data Classification
    4. Clustering
    5. Association Rule Learning
    6. Reinforcement Learning
    7. Natural Language Processing
    8. Deep Learning
    9. Dimensionality Reduction
    10. Model Selection and Boosting

** Section 3 will be for those interested to learn network programming. This will be extend the training period for two more weeks. However, there is no additional charge for learning this section.

** Section 4 will be for those interested to learn machine learning with focus on data science.
Based on the general audience interest either of section 3 or section 4 will be covered for about two weeks after the Python language curriculum.