Data Science and Machine Learning Program…..1 Month.

Module1: Python Programming. 5 Days

Day 1

- Overview of Data Science.
- Python - Environment Setup
- Python - Basic Syntax
- Python - Variable Types
- Python - Numbers/Strings
- Python - Operators - Arithmetic.
- Check code
  - https://pyfiddle.io/fiddle/2102f01e-10ca-489e-a5c0-fdb6436b8abd/?i=true
- Todo: Simple interest calc using numbers, strings.
- Check code
  - https://pyfiddle.io/fiddle/e716522e-4d7d-40cd-b3d2-8218191d8488/?i=true
- Students Task:
  - Payroll Example: https://justpaste.it/3spje

Day 2

- Python – Lists/Tuples
- Python - Operators , Relational, Logical, Membership, Identity
- Python - Decision Making ...if, if else
  - Check code
  - https://pyfiddle.io/fiddle/77db13a7-8d5c-41c3-91b7-a27492a1dc24/?i=true
- Python - Decision Making ...if, if else , elif
  - Check code
  - https://pyfiddle.io/fiddle/b0e6359c-9d70-46ac-bb7d-0fa9b26b40c5/?i=true
  - Student Task
  - https://justpaste.it/3fln2

Day 3

- Python - Dictionary
  - Code https://pyfiddle.io/fiddle/afb01304-e85f-4f57-be36-eab54313faf3/?i=true
- Python – While Loops
  - Code https://pyfiddle.io/fiddle/a7dea10b-1333-41b8-a804-dc8bd227b80e/?i=true
  - Task:
- Python – For Loops
  - Code https://pyfiddle.io/fiddle/47c30559-a5fd-4583-94ea-57c3a304dc4b/?i=true
  - Task :
- Python looping through lists, tuples, dictionaries.
- Students Task: https://justpaste.it/54br8

Day 4

- Python – Functions.
    - Code https://pyfiddle.io/fiddle/6f394737-8022-43f0-9aa9-8b9c7bfa64f6/?i=true
    - Student Tasks: https://justpaste.it/77zun

Day 5

- Python - OOP
    - Code https://pyfiddle.io/fiddle/18efeefc-3141-496b-b3fc-04cefb3b0255/?i=true

Module 2: DataScience: 5 Days

Python Data Science
Python Data Science Environment Setup, Libraries needed
Jupyter Notebook
Python Pandas
Python Matplotlib.
Python Data cleansing
Python Processing CSV Data.
- Python Data Visualization
Python Relational databases(MySQL)
- Python Data Visualization

Module 3: 2 days

Understanding Data with tablue/Power BI/IBM Watson studio
Creating dashboards.

Module 4: Machine Learning: 5 Days:

Introduction to Machine Learning
Preparing Data/ Acquisition Data
ML - Objectives
Data Feature Selection
ML Algorithms − Classification
ML Algorithms − Regression
ML Algorithms − Clustering
Performance Metrics.
Improving Performance of ML Models
Improving Performance of ML Models

Module 5: Projects: 12th – 15 Nov
End.