Mentoring Session Plan – Python 1

Learning Objectives

- To achieve a minimum common ground for all learners in the terms of the knowledge of python.
- To ensure that learners have basic working knowledge of python to be able to take on the upcoming modules.

Agenda of the session:

- Introduction with the learners
- Gauging learners' understanding on the topics of the week.
- Understanding the concepts clarity of the learners on:
  - Introduction to python, functions and classes – basics
  - NumPy, Pandas, python functions
- Clarifying doubts and case study.
- Extended Doubts clearing, industry perspective and practices.
- Summary of the session's learning.

Structure of the Session:

Duration	Topic	Details
15 min	• Introduction with the learners	• Introduce yourself to the learners and get everyone to introduce themselves to understand their backgrounds. • Set expectations for the session.
10 min	• Gauge learner's understanding	• Ask the learners in the group about the understanding of the week's topics. • Identify the important concepts majority of the group is facing doubts on.
20 min	• Concepts clarity	• Use the case study provided to have a hands on session to demonstrate topics covered in the week. Explain the attributes and the steps to follow and answer the problem through the notebook provided. • Dataset used in the case study – uberdrive.csv

60 min	• Case Study Hands on	•
25 min	• Extended Doubts Clearing and Industry perspective discussion	• Use this time to clarify additional doubts. • Also, explain the industry practices as per your experience.
5 min	• Summarize the session	• Provide a summary of the session

In addition to this, please keep in mind the below mentioned points:

1. The objective of the session is to only clear doubts and have a hands on with the case study on Python. Learners are expected to have working knowledge of python already and this session is only to ensure that they achieve a common minimum level of knowledge on python to be able to move forward in this program.
2. If there is any learner who barely knows python and starts asking questions that are not necessarily the best use of time for the rest of the group, please politely tell them that those questions can be taken offline as they are not the best use of time for the rest of the group.

Topics covered for the week:

1. NumPy
2. Python Arrays
3. Matrix Indexing
4. Selection Techniques
5. Input output options and saving files
6. Pandas
7. Data frames and Indexing
8. Group by
9. Merging
10. Python functions, objects and classes- basics