## SESSION PLAN

| Session Name | Handling Program Flow in Python |
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**Learning Outcomes**

- Work with conditional statements and loops like if-else, for, while
- Read and write to a file with Python
- Handle errors and exceptions in Python
- Create and work with functions
- Programming with the Object-Oriented Paradigm

**Prerequisites for the Student**

- Handling Program Flow in Python concept

**Student Activities**

- Write a Python program to get the Fibonacci series between 0 to 50.
  Note: The Fibonacci Sequence is the series of numbers :0, 1, 1, 2, 3, 5, 8, 13, 21, ....
  Every next number is found by adding up the two numbers before it.
- What are the benefits and limitations of using python?
- Actively Listening
- Overview of Handling Program flow in python
  - Control Statements and Loops
  - What are the functions?
  - Object-Oriented Programming
  - Exceptions and File I/O
- Practice problems on Control Statements and loops, Functions, Object-Oriented Programming, Exceptions and File I/O
  - Refer the GitHub repo for problems
- Quiz on Handling Program Flow in Python.
- Questions and Discussion on doubts - AMA
- Code Along (refer the GitHub repo)

**Next Session**

- Concept - Manipulating Data with Numpy
- Key topics to be highlighted - highlight where they would need to spend more time and importance w.r.t Data Science.
  - Arrays in NumPy
  - Creating NumPy arrays
  - Indexing and Slicing NumPy arrays
  - Applying NumPy hands-on