

Cape Gemini Big Data Analyst							
College Name: Saranathan college of Engineering					Start Date	08.01.2024	
Trainer Name: Mr.Vijaya Murugan					End Date	31.01.2024	
S.No	Module	Topic	Subtopic	Methodology	Duration (hh : mm)		
Part 1 - Python Analytics - 3 Formative Assessment - (120 Hrs)					120	Date	Signature
	Python Fundamentals	Python Introduction	Python introduction	Lecture, Discussion	2		
			Installing Anaconda, Variables and Constants, Datatypes	Lecture, Discussion, Hands on	2		
			Array implementation, File Methods	Lecture, Discussion, Hands on	2		
			Keywords and Identifiers	Lecture, Discussion, Hands on	2		
			Control Structures and Loops	Lecture, Discussion, Hands on	2		
		Python Data Structures	List, Tuples and its operations	Lecture, Discussion, Hands on	2		
			Sets, Dictionaries and its operations	Lecture, Discussion, Hands on	2		
			String and String manipulation functions	Lecture, Discussion, Hands on	2		
			Python Directory and File management system	Lecture, Discussion, Hands on	2		
		Python Scope	Global, Local and Non local variables	Lecture, Discussion, Hands on	2		
			Global Keywords and Namespaces	Lecture, Discussion, Hands on	2		
		OOPS Concepts in python	Classes and Objects	Lecture, Discussion, Hands on	2		
			Inheritance and Multiple Inheritance	Lecture, Discussion, Hands on	2		
			Function and Operator Overloading.	Lecture, Discussion, Hands on	2		
		File Handling in python	Input Output and Import operations	Lecture, Discussion, Hands on	2		
			Read and Write operations in file	Lecture, Discussion, Hands on	2		
			Shallow copy and Deep copy	Lecture, Discussion, Hands on	2		
		Special functions	Iterators, Generators and Decorators	Lecture, Discussion, Hands on	2		
			Recursion and Lamda functions	Lecture, Discussion, Hands on	2		
			Regular expression	Lecture, Discussion, Hands on	2		
		Exception Handling in python	Errors and Exceptions, Try, Except and Finally, User Defined Exceptions	Lecture, Discussion, Hands on	2		
		Stage 1 - Revision			1		
		Formative Assessment 1			1		
		Numpy	Introduction to NUMPY and its basic operations	Lecture, Discussion, Hands on	4		
			Numpy mathematical functions	Lecture, Discussion, Hands on	5		
			Advance indexing, iterating over Array	Lecture, Discussion, Hands on	5		
			Joint, Split, Search, Sort and Filter	Lecture, Discussion, Hands on	5		
			Stacking and Broadcasting	Lecture, Discussion, Hands on	5		
			Series, DataFrames and Read Files using pandas	Lecture, Discussion, Hands on	5		
			Data cleaning, Working with missing data, Boolean Indexing and Universal functions	Lecture, Discussion, Hands on	5		
			Groupby, Working with Text data, Creating Pandas Series, Merging, Joining, Concatenation	Lecture, Discussion, Hands on	5		

Python Analytics	Pandas	Working with Date and Time using Pandas, Working with pandas Xlsx Writer	Lecture, Discussion, Hands on	5		
		Selecting Random samples, Duplicate Data, Query method()	Lecture, Discussion, Hands on	5		
		Categories, Vectorization in Python, Statistics and probability concepts for data science	Lecture, Discussion, Hands on	5		
		Sampling and Types of Sampling Techniques, Types of Probability Sampling	Lecture, Discussion, Hands on	5		
	Matplot, Seaborn and Scipy	MATPLOTLIB, Subplots and Legends	Lecture, Discussion, Hands on	5		
		Plot Lines, Multiples, Opacity, Bar plots and its types	Lecture, Discussion, Hands on	5		
		Piechart, Seaborn and its styles and Scipy	Lecture, Discussion, Hands on	5		
	Stage 2 - Revision			1		
	Formative Assessment - 2			1		