



Full Stack Data Analytics

Category	Topic	Sub-Topics	Outcomes	No. of Days	Final SignOff Days
Python for EDA	Introduction to Python Programming	Getting Started with Python	Introduction to Python Programming, Data Types in Python, Indexing and Slicing, Operators in Data types, In-Built Functions	5	30
		Python Control Flow	Statements, Indentations, Conditions, Loops, Iterations, Conditional and Infinite looping, Custom Functions, Advanced Looping Concepts	5	
		Object Oriented Programming	Introduction to OOPS, Inheritance, Polymorphism, Exception Handling and Logging	2	
		Data Structures and Algorithms	Data Structure Fundamentals, Efficient String Operations, Recursion Fundamentals, Mastering Recursion, Algorithm Fundamentals	5	
	Numerical Programming in Python	Data Wrangling Libraries	Introduction to Pandas and Numpy, Data Wrangling (Advanced with Code Optimization), Data Wrangling on different data formats, Data Management Libraries, Webscraping	7	
		Data Visualization Libraries	Data Visualization with Matplotlib and Seaborn, Data Visualization: Tips and Best Practices, Exploratory Data Analysis- Case Study	3	
Relational Databases	Structured Query Language (SQL)	Getting Started with SQL	SQL basics for Data Analysis, Fundamentals of SQL, Dealing with Multiple tables, Advanced SQL Joins	4	10
	Advanced SQL	In-built Functions	Type casting and Math functions, Date, Time and String Functions, Window Functions	3	
		Data Preparation with SQL	Complex Queries using CTEs and Pivoting, Data Exploration with SQL and Python, Data Management and Schema Design	3	

Data Analysis Tools	Data Analysis using Excel	Fundamentals of Excel	Introduction to excel, Reading and Manipulation of Data, Functions, Conditional Statements in Excel	4	25
		Data Exploration with In-built Functions	Data filtering, Data Validation, Pivot Tables: Operations and applications, Data cleaning, Quality Assurance (QA)		
		Story Telling with Excel	Introduction, Choosing right chart type, Create compelling data visualizations		
		Dashboarding Concepts	Introduction to dashboarding, Techniques for creating interactive dashboards		
	Power BI	Dashboarding and Story Telling with Power BI	Introduction to Power BI Ecosystem, Data Modelling, Choosing Right Chart, Dashboarding and storytelling, DAX and Power Query	3	
	Business Analysis Project	Customer and Web Analytics	Understanding customer behavior and preferences	5	
		Advanced Charts	Visualization best practices and chart selection for different data types, Advanced chart types and techniques such as heatmaps, sankey diagrams, and sparklines		
		Dashboarding	Dashboarding with business		