

## ADVANCED EXCEL: Analyzing Data

### Unit I: Introduction to Data Analysis Using Excel

Learn the basics of Excel to help managing, understanding patterns, visualize and gain insights from your data.

Day/Session	Topics	Sub-Topics	
1-I	Basics of Excel with historical data on Equity, Commodity etc	Editing and basic formatting, Basic data Manipulation, Basic excel features: filtering, sorting	
1-I	Data Filter, Sort, custom sort, Advanced Filter	Using Pivot tables& Charts	
1-II	Conditional formatting, Finding duplicates, Inserting/hiding comments	Data text to columns using delimiters	
1-II	Using Basic Excel Library Functions: SUM, DIFFERENCE, PRODUCT, SUMPRODUCT, COUNT, COUNTIF, SUMIF, Date Time Functions. DATE, YEAR, DAY, MONTH, WEEKDAY, LOG, LN, SQRT, POWER, EXP etc.		

### Unit II: Excel Skills for Business

Develop your skills with Excel, one of the common tools that help solving business problems

Day	Topics	Sub-Topics	
2-1&II	Statistical measures: Average, Median, Mode, Std deviation, Range Min Max, Variance, Coefficient of variation, Correlation and Regression, Percentiles, Quartiles, Frequency Distributions		
3-I	Lookup functions: HYPERLINK, INDEX, INDIRECT, MATCH, OFFSET, VLOOKUP, HLOOKUP, LEN		
3-II	Data Validation: Data Validation, Circle Invalid data, Consolidate and Group Data		

### Unit III: Analyzing and Visualizing Data with Excel

Develop your skills with Excel, one of the common tools that data scientists depend on to gather, transform, analyze, and visualize data.

Day	Topics	Sub-Topics	
4-I	Financial Functions: PMT, IPMT, PPMT, FV, PV, NPER, RATE, NPV,		
4-I	Case Analysis: Loan & Lease Statement Schedule		
4-II	What if Analysis: Goal Seek, Scenario & Data Tables		
4-II	Data Analysis Tools: Correlation, Covariance, Descriptive Statistics, Rank and Percentile		

### Unit IV: Essential Statistics& Optimization Using Excel

Gain a solid understanding of statistical measures using Excel, and build on your data analysis and data science foundation.

Day	Topics	Sub-Topics	
5-I	Data Analysis Tools: Correlation, Covariance, Descriptive Statistics, Rank and Percentile		
5-II	Solver: Optimization (Linear, Transportation problems)		

Kindly Note:

	Least Complex		Moderately Complex		Most Complex
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