TECHGENX

Python with Finance

Please Note: All below course content will be covered in practical scenarios and regular assignments will be shared. All sessions will be recorded and shared with student for future reference (free of cost). Along with below course.

1. Introduction with Python Programming
2. Why Python
3. Why Jupyter
4. Installation
5. Jupyter interface
6. Diff between Python2.x vs Python 3.x
7. Python variables and Data Types
8. Variables
9. Numbers and Boolean Values
10. Strings
11. Python Syntax
12. Operators
13. Arithmetic
14. Logical
15. Membership
16. Identity
17. Comparison
18. Indexing elements
19. Indentation
20. Conditional Statements
21. if
22. if elif else
23. Python Functions
24. Defining a fn
25. Returning value on fn call
26. Arguments vs Parameters
27. Calling fn in another fn
28. Built in fn in python
29. Python Sequences
30. List
31. Dictionary
32. Set
33. Tuple

34. Slicing
35. Strings and String Functions
36. Loops in Python
37. For
38. While
39. using range fn with for loop
40. break and continue statement in loop
41. Advance Python
42. OOPS
43. Inheritance
44. Polymorphism
45. Encapsulation
46. Abstraction
47. Packages and Modules
48. Standard Library
49. Importing modules in python
50. Packages for finance and data science
51. Working with Arrays
52. Random numbers
53. Financial data in python
54. Sources of Financial data
55. Accessing Notebook files
56. Importing and organizing in Python (in 3 parts)
57. Index of Time Series data
58. Finance: Calculating and Comparing Rates of Return in Python
59. Considering both rsik and return
60. Calculating security rate of return (2 parts)
61. Logarithm returns
62. Portfolio of securities and calculation of rate of return
63. Popular stock indices
64. Calculating Indices
65. Finance: Measuring Investment Risk
66. Security risk Measurement
67. Calculating risk
68. Portfolio diversification
69. Calculating covariance bw securities
70. Correlation bw stocks
71. Covariance and Correlation
72. Risk of Multiple securities in portfolio
73. calculating portfolio risk
74. Systematic vs Idiosyncratic risk
75. Diversifiable risk

76. Finance: Using regression for Financial Analysis
77. Simple Regression analysis
78. Running regression in Python
79. Distinguish good regression
80. Computing lapha beta and R Squared in Python
81. Finance: Markowitz Potfolio Optimization
82. Markowitz Portfolio Theory
83. Obtaining Efficient frontier in Python (3)
84. Finance: The Capital Asset Pricing Model
85. CAPM?
86. Understanding and calculating security's Beta
87. Beta of Stock
88. CAPM formula
89. Expected return of stock
90. Sharp Ratio and practical use ?
91. Obtaining sharp ratio in python
92. Measurement of portfolio management performance
93. Finance: Multivariate regression analysis
94. Multivariate regression analysis ?
95. Running a Multivariate regression analysis
96. Finance: Monte Carlo simulations
97. Monte Carlo simulations?
98. Application in corporate finance
99. Predicting gross profit(2)
100. Forecasting stock prices with Monte carlo (3)
101. Derivative Contracts
102. Black Scholes formula for Option pricing
103. Monte Carlo: Black-Scholes-Merton
104. Monte Carlo: Euler Discretization - Part I
105. Monte Carlo: Euler Discretization - Part II