# Udemy Course Curriculums

## Course ID: 5183242 - Binary Trading Volume Spread Analysis (VSA)

### Section 01 - Introduction of VSA (Index: 1)

01 - Introduction Of Volume Spread Analysis (VSA) Class 1 (Time: 36 min)

### Section 02 - Volume Spread Analysis (VSA) Class 2. All 3 Minutes Signals. (Index: 2)

02 - Volume Spread Analysis (VSA) Class 2 (Time: 60 min)

03 - Volume Spread Analysis (VSA) Class 3 (Time: 55 min)

04 - Volume Spread Analysis (VSA) Class 4 (Time: 50 min)

### Section 03 - Market Direction and Wave Analysis (Index: 3)

05 - Wave Analysis and How Market Change the Direction (VSA) Class 5. (Time: 42 min)

### Section 04 - VSA Signals For 1 Minute Sureshot Trading (Index: 4)

06 - Bullish Effort vs Bullish Result, Bearish Effort vs Bearish Result (Time: 46 min)

07 - No Supply Bar And No Demand Bar Signal of VSA (Time: 43 min)

### Section 05 - Buying Climax Start and End, Selling Climax Start and End (Index: 5)

08 - Buying Climax Start and End Selling Climax Start and End (Time: 42 min)

### Section 06 - Candlestick Wick Analysis. (Index: 6)

09 - Candlesticks Wicks Analysis Class 9 (Time: 37 min)

10 - candlestick wicks analysis class 10 (Time: 15 min)

## Course ID: 3464482 - Python for Financial Markets Analysis

### Section 01 - Importing Financial Markets Data (Index: 1)

01 - Install python (Time: 4 min)

02 - Install Anaconda (Time: 2 min)

03 - Downloading and Importing finance data (Time: 11 min)

Resource: CSV - Download and import.ipynb

Resource: TSLA.csv

04 - Installing required package (Time: 4 min)

05 - Download OHLC price for single stock (Time: 7 min)

Resource: Importing data via yfinance.ipynb

06 - Get specfic time range data (Time: 7 min)

07 - Get Intra-day data (Time: 13 min)

08 - Get Pre and Post Market Data (Time: 6 min)

09 - Fundamentals, Dividends, Splits and News (Time: 8 min)

Resource: Stock Information, dividends and Splits, and News .ipynb

10 - Splits and Dividends (Time: 7 min)

Resource: Splits and Dividends.ipynb

11 - Import multiple stocks (Time: 8 min)

Resource: Import multiple stocks.ipynb

12 - Export Data to CSV and Excel (Time: 5 min)

Resource: Exporting data to CSV and Excel.ipynb

13 - From Dictionary > Series > Frame (Time: 9 min)

Resource: From Dictionary > Series > Frame.ipynb

14 - Get Stock Earnings Information (Time: 5 min)

Resource: Import Stock Earnings Infrormation.ipynb

15 - Get Stock Analyst Recommendations (Time: 9 min)

Resource: Get Stock - Analyst Recommendations.ipynb

16 - Get Stock Options Data (Time: 11 min)

Resource: Import Stock Options Data.ipynb

17 - Get Stock Shareholders (Time: 4 min)

Resource: Get Stock - Shareholders.ipynb

18 - Import and normalize Financial Indexes (Time: 10 min)

Resource: Import Financial Indexes.ipynb

19 - Import ETFs and Mutual Fund Data (Time: 7 min)

Resource: Import ETFs and Funds Data.ipynb

20 - Import currency data (Time: 3 min)

Resource: Import Currency Data.ipynb

21 - Import Cryptocurrencies (Time: 5 min)

Resource: Get Cryptocurrency data.ipynb

22 - Import Treasury Yields Data (Time: 6 min)

Resource: Import Treasury Yields Data.ipynb

23 - Streaming real-time data (Time: 8 min)

Resource: Streaming Real-time data.ipynb

### Section 02 - Python Basic 101 (Index: 2)

24 - Data types and Numbers (Time: 13 min)

Resource: Python Basic 101.ipynb

25 - Variables (Time: 11 min)

26 - Integers and Float (Time: 9 min)

27 - Strings (Time: 17 min)

28 - Lists (Time: 16 min)

29 - Dictionaries (Time: 10 min)

30 - For loops (Time: 12 min)

31 - If conditions (Time: 7 min)

32 - Functions (Time: 8 min)

### Section 03 - Creating Interactive Financial Charts (Index: 3)

33 - Explore Plotly and cufflinks (Time: 16 min)

Resource: Creating Interactive Financial Charts.ipynb

34 - Customizing charts (Time: 8 min)

35 - Spread Charts (Time: 7 min)

36 - Interactive Histogram (Time: 11 min)

37 - Candle and OHLC Charts (Time: 12 min)

38 - Technical Indicators : SMA and Bollinger Bands (Time: 10 min)

39 - Adding Volume and MACD Indicators (Time: 1 min)

40 - Using annotation to tell the story (Time: 9 min)

Resource: Using annotation to tell the story.ipynb

41 - Create an interactive candle chart + technical indicators (Time: 12 min)

Resource: Create an interactive candle chart.ipynb

### Section 04 - Time Series Analysis (Index: 4)

42 - The power of index() (Time: 22 min)

Resource: The power of index().ipynb

43 - Handling missing data in time series (Time: 7 min)

Resource: Handling missing data in time series.ipynb

44 - Creating new data frame and using reindex (Time: 8 min)

45 - Using bfill and ffill methods (Time: 8 min)

46 - Resample time series (Time: 13 min)

Resource: Resample time series data.ipynb

47 - Timezone travel with time series (Time: 12 min)

Resource: Timezone travel with time series.ipynb

48 - Shifting dates (Time: 4 min)

Resource: Shifting dates.ipynb

49 - Find largest and smallest numbers (Time: 7 min)

Resource: Find largest and smallest.ipynb

50 - Pandas profiling library (Time: 12 min)

Resource: Pandas Profiling Library.ipynb

### Section 05 - Translating SQL style queries (Index: 5)

51 - Calculate Boolean statistics (Time: 3 min)

52 - Construct multiple boolean conditions (Time: 5 min)

53 - Translate SQL where clauses (Time: 6 min)

### Section 06 - Rate of Returns Analysis (Index: 6)

54 - Calculate rate of returns (Time: 16 min)

Resource: Rate of Returns.ipynb

55 - Log returns of a security (Time: 5 min)

56 - Rate of return for a portfolio (Time: 19 min)

57 - Rate of returns for major indices (Time: 8 min)

58 - Calculate Annualize Returns (Time: 11 min)

Resource: Calculate Annualized Returns.ipynb

### Section 07 - Exploring Risk Analysis (Index: 7)

59 - Calculating a security risk (Time: 12 min)

### Section 08 - Creating weighted indexes (Index: 8)

60 - Prepare data, normalize data (Time: 13 min)

61 - Calculate Price Weighted Index (Time: 12 min)

62 - Calculate weights of constituents over time (Time: 7 min)

63 - Calculate Equal Weighted Index (Time: 13 min)

### Section 09 - Point and figure charts (Index: 9)

64 - Create point and figure charts (Time: 9 min)

Resource: Point and Figure Chart .ipynb

Resource: pnf charts

Resource: renko charts

### Section 10 - Quick Stock Analysis (Index: 10)

65 - Exploring Rolling Mean, Returns Deviations (Time: 10 min)

Resource: Quick Stock Analysis.ipynb

66 - Exploring Peer Analysis (Time: 12 min)

67 - Returns Rates and Risk with heat map (Time: 8 min)

68 - Find best and worst returns by months (Time: 23 min)

Resource: Find\_Best\_and\_Worst\_Returns\_By\_Months.ipynb

### Section 11 - Explore Stock Statistics (Index: 11)

69 - Calculate SMA on the fly (Time: 11 min)

Resource: Exploring Stock Stats.ipynb

70 - Calculate technical indicators with custom values (Time: 5 min)

71 - Calculate custom up and down days (Time: 11 min)

72 - Min, max and delta changes (Time: 5 min)

### Section 12 - Crypto vs Stock Market correlations (Index: 12)

73 - Is crypto market is correlation to stock market? (Time: 11 min)

Resource: Is Crypto is correlated to Stock Market?.ipynb

### Section 13 - Exploring Technical Indicators (Index: 13)

74 - Introduction to technical indicators (Time: 4 min)

Resource: Technical Indicators Analysis.ipynb

75 - Simple Moving Averages (SMA) (Time: 15 min)

76 - Exponential Moving Averages (EMA) (Time: 10 min)

77 - Bollinger Bands (Time: 10 min)

78 - MACD (Time: 8 min)

79 - Create technical indicator manually - MACD (Time: 7 min)

80 - Create technical indicator manually - MACD - Part 2 (Time: 2 min)

81 - Relative Strength Index (RSI) (Time: 5 min)

82 - RSI - Overbought / Oversold Signals (Time: 6 min)

83 - Calculate pivot points (Time: 5 min)

Resource: Calculate pivot points.ipynb

84 - Getting 40+ technical indicators... (Time: 8 min)

Resource: Get 40+ Technical indicators.ipynb

### Section 14 - Technical Indicators Signals (Index: 14)

85 - Simple Moving Averages - Setting up data, and strategy (Time: 15 min)

Resource: Generating Buy Sell Signals via SMAs.ipynb

86 - Visualization (Time: 4 min)

87 - SMA Signals - Avoid backtesting bias (Time: 21 min)

Resource: SMA Signals - Avoid backtesting bias.ipynb

88 - EMA - Double Crossover Signals (Time: 16 min)

Resource: EMA Crossover Signals.ipynb

89 - MACD Signals (Time: 26 min)

Resource: MACD Signals.ipynb

90 - RSI Signals (Time: 15 min)

Resource: RSI Signals.ipynb

91 - Bollinger bands signals (Time: 16 min)

Resource: Bollinger Bands Signals.ipynb

### Section 15 - Squeeze Momentum Indicator (Index: 15)

92 - Importing packages (Time: 7 min)

Resource: indicator info

Resource: Squeeze Momentum Indicator - Popular TradingView Indicator.ipynb

93 - Calculate Bollinger Bands and True Range (Time: 7 min)

94 - Calculate True Range and KC Channels (Time: 7 min)

95 - Calculate momentum - bar value (Time: 7 min)

96 - Calculate Squeeze on/off (Time: 15 min)

97 - Show visualization (Time: 15 min)

### Section 16 - Finding Higher High and Lower Low (Index: 16)

98 - Finding Ups and Downs (Time: 10 min)

Resource: Higher High and Lower Low.ipynb

99 - Find Higher High and Lower Low (Time: 9 min)

100 - Z-Score and Ranking (Time: 13 min)

Resource: Z-Score and ranking analysis.ipynb

101 - Z-Score and Ranking - Part 2 (Time: 0 min)

### Section 17 - Portfolio Analysis (Index: 17)

102 - Portfolio performance numbers (Time: 12 min)

Resource: portfolio\_analytics\_via\_pyfolio.py

### Section 18 - Algo Trading - Buy Low, Sell High Strategy (Index: 18)

103 - A simple trading strategy (Time: 15 min)

Resource: A Simple Trading System.ipynb

104 - Setting up, and calculating standard deviations (Time: 7 min)

Resource: Algorithmic Trading - BUY LOW SELL HIGH strategy with back-testing.ipynb

105 - Event driven testing (Time: 13 min)

### Section 19 - Creating a stock screener (Index: 19)

106 - Setting up the data (Time: 7 min)

Resource: Stock Screener.ipynb

107 - Calculating indicators (Time: 4 min)

108 - Calculating conditions (Time: 9 min)

109 - Applying conditions (Time: 10 min)

### Section 20 - Create interactive data apps (Index: 20)

110 - Create a market dashboard application with streamlit (Time: 23 min)

Resource: app.py

### Section 21 - Creating a candlestick pattern web screener (Index: 21)

111 - Setup package and flask web server (Time: 9 min)

Resource: nasdaq100\_companies.csv

Resource: patterns.py

Resource: app.py

Resource: index.html

112 - Setup dynamic candlestick patterns dropdown (Time: 8 min)

113 - Prepare market data (Time: 9 min)

114 - Reading stock data into dataframes (Time: 8 min)

115 - Apply a candlestick pattern (Time: 4 min)

116 - Dynamic pattern recognitions (Time: 8 min)

117 - Display stocks with patterns (Time: 16 min)

118 - Display signals (Time: 5 min)

### Section 22 - Thank You (Index: 22)

119 - Your feedback is very valuable (Time: 0 min)

120 - Bonus Lecture (Time: 0 min)

## Course ID: 4069268 - The Advanced SQL Server Masterclass For Data Analysis

### Section 01 - Before we start coding... (Index: 1)

01 - Introduction (Time: 1 min)

02 - IMPORTANT NOTE: PLEASE READ (Time: 1 min)

03 - Installing SQL Server 2019 Express (Time: 7 min)

04 - Installing SQL Server Management Studio (Time: 4 min)

05 - Downloading the AdventureWorks Sample Database (Time: 8 min)

06 - Course Environment Walkthrough (Time: 10 min)

### Section 02 - Advanced Analysis With Window Functions (Index: 2)

07 - Introducing Window Functions With OVER (Time: 9 min)

Resource: OVER - Example Code.sql

08 - Introducing Window Functions With OVER - Exercises (Time: 1 min)

Resource: OVER - Exercise SOLUTIONS.sql

09 - PARTITION BY (Time: 6 min)

Resource: PARTITION BY - Example Code.sql

10 - PARTITION BY - Exercises (Time: 1 min)

Resource: PARTITION BY - Exercise SOLUTIONS.sql

11 - ROW\_NUMBER (Time: 10 min)

Resource: ROW\_NUMBER.mp4

Resource: ROW\_NUMBER - Example Code.sql

12 - ROW\_NUMBER - Exercises (Time: 1 min)

Resource: ROW\_NUMBER - Exercise SOLUTIONS.sql

13 - RANK and DENSE\_RANK (Time: 7 min)

Resource: RANK and DENSE\_RANK - Example Code.sql

14 - RANK and DENSE\_RANK - Exercises (Time: 1 min)

Resource: RANK and DENSE\_RANK - Exercise SOLUTIONS.sql

15 - LEAD and LAG (Time: 14 min)

Resource: LEAD and LAG - Example Code.sql

16 - LEAD and LAG - Exercises (Time: 1 min)

Resource: LEAD and LAG - Exercise SOLUTIONS.sql

17 - FIRST\_VALUE (Time: 14 min)

Resource: FIRST\_VALUE - Example Code.sql

18 - FIRST\_VALUE - Exercises (Time: 2 min)

Resource: FIRST\_VALUE - Exercise SOLUTIONS.sql

19 - Introducing Subqueries (Time: 7 min)

Resource: Subqueries - Example Code.sql

20 - Introducing Subqueries - Exercises (Time: 1 min)

Resource: Subqueries - Exercise Solutions.sql

21 - ROWS BETWEEN (Time: 15 min)

Resource: ROWS BETWEEN - Example Code.sql

22 - ROWS BETWEEN - Exercises (Time: 1 min)

Resource: ROWS BETWEEN - Exercise SOLUTIONS.sql

### Section 03 - Subqueries (Index: 3)

23 - Scalar Subqueries (Time: 7 min)

Resource: Scalar Subqueries - Example Code.sql

24 - Scalar Subqueries - Exercises (Time: 1 min)

Resource: Scalar Subqueries - Exercise SOLUTIONS.sql

25 - Correlated Subqueries (Time: 11 min)

Resource: Correlated Subqueries - Example Code.sql

26 - Correlated Subqueries - Exercises (Time: 0 min)

Resource: Correlated Subqueries - Exercise SOLUTIONS.sql

27 - EXISTS (Time: 14 min)

Resource: EXISTS - Example Code.sql

28 - EXISTS - Exercises (Time: 1 min)

Resource: EXISTS - Exercise SOLUTIONS.sql

29 - FOR XML PATH With STUFF (Time: 15 min)

Resource: FOR XML PATH With STUFF - Example Code.sql

30 - FOR XML PATH With STUFF - Exercises (Time: 1 min)

Resource: FOR XML PATH With STUFF - Exercise SOLUTIONS.sql

31 - PIVOT - Part 1 (Time: 10 min)

Resource: PIVOT Part 1 - Example Code.sql

32 - PIVOT - Part 2 (Time: 8 min)

Resource: PIVOT Part 2 - Example Code.sql

33 - PIVOT - Exercises (Time: 0 min)

Resource: PIVOT - Exercise SOLUTIONS.sql

### Section 04 - Common Table Expressions (CTEs) (Index: 4)

34 - CTEs - Part 1 (Time: 12 min)

35 - CTEs - Part 2 (Time: 8 min)

Resource: CTEs - Example Code.sql

36 - CTEs - Exercise (Time: 0 min)

Resource: CTEs - Exercise Starter Code.sql

Resource: CTEs - Exercise SOLUTION.sql

37 - Recursive CTEs (Time: 15 min)

Resource: Recursive CTEs - Example Code.sql

38 - Recursive CTEs - Exercises (Time: 0 min)

Resource: Recursive CTEs - Exercise SOLUTIONS.sql

### Section 05 - Temp Tables (Index: 5)

39 - Temp Tables - Part 1 (Time: 10 min)

40 - Temp Tables - Part 2 (Time: 5 min)

Resource: Temp Tables - Example Code.sql

41 - Temp Tables - Exercises (Time: 0 min)

Resource: Temp Tables - Exercise SOLUTION.sql

42 - CREATE and INSERT (Time: 13 min)

Resource: CREATE and INSERT - Example Code.sql

43 - CREATE and INSERT - Exercise (Time: 0 min)

Resource: CREATE and INSERT - Exercise SOLUTION.sql

44 - TRUNCATE - Part 1 (Time: 9 min)

45 - TRUNCATE - Part 2 (Time: 8 min)

Resource: TRUNCATE - Example Code.sql

46 - TRUNCATE - Exercise (Time: 1 min)

Resource: TRUNCATE - Exercise SOLUTION.sql

47 - UPDATE - Part 1 (Time: 9 min)

48 - UPDATE - Part 2 (Time: 8 min)

Resource: Update - Example Code.sql

49 - UPDATE - Exercise (Time: 0 min)

Resource: Update - Exercise Starter Code.sql

Resource: Update - Exercise SOLUTION.sql

50 - DELETE (Time: 5 min)

Resource: DELETE - Example Code.sql

### Section 06 - Optimization (Index: 6)

51 - Optimizing With UPDATE - Part 1 (Time: 8 min)

52 - Optimizing With UPDATE - Part 2 (Time: 9 min)

Resource: Optimizing With UPDATE - Example Code.sql

53 - Optimizing With UPDATE - Exercise (Time: 0 min)

Resource: Optimizing With UPDATE - Exercise Starter Code.sql

Resource: Optimizing With UPDATE - Exercise SOLUTION.sql

54 - An Improved EXISTS With UPDATE (Time: 11 min)

Resource: An Improved EXISTS With UPDATE - Example Code.sql

55 - An Improved EXISTS With UPDATE - Exercise (Time: 0 min)

Resource: An Improved EXISTS With UPDATE - Exercise Starter Code.sql

Resource: An Improved EXISTS With UPDATE - Exercise SOLUTION.sql

56 - Introducing Indexes (Time: 9 min)

Resource: Indexes.pdf

57 - Optimizing With Indexes - Example (Time: 12 min)

Resource: Indexes - Example Code.sql

58 - Optimizing With Indexes - Exercise (Time: 0 min)

Resource: Indexes - Exercise SOLUTION.sql

Resource: Indexes - Exercise Starter Code.sql

59 - Lookup Tables - Part 1 (Time: 13 min)

Resource: Lookup Tables Part One - Example Code.sql

60 - Lookup Tables - Part 2 (Time: 8 min)

Resource: Lookup Tables Part Two - Example Code.sql

61 - Lookup Tables - Exercises (Time: 0 min)

Resource: Lookup Tables - Exercise SOLUTIONS.sql

62 - Views (Time: 11 min)

Resource: Views - Example Code.sql

63 - Views - Exercises (Time: 1 min)

Resource: Views - Exercise SOLUTIONS.sql

### Section 07 - Programming SQL (Index: 7)

64 - Variables - Part 1 (Time: 10 min)

Resource: Variables Part 1 - Example Code.sql

65 - Variables - Exercise 1 (Time: 0 min)

Resource: Variables Part 1 - Exercise Starter Code.sql

Resource: Variables Part 1 - Exercise SOLUTION.sql

66 - Variables - Part 2 (Time: 8 min)

Resource: Variables Part 2 - Example Code.sql

67 - Variables - Exercise 2 (Time: 0 min)

Resource: Variables Part 2 - Exercise SOLUTION.sql

68 - Introducing User Defined Functions (Time: 8 min)

Resource: Introducing User Defined Functions - Example Code.sql

69 - NOTE TO STUDENTS (Time: 0 min)

70 - Making Functions Flexible With Parameters (Time: 11 min)

Resource: User Defined Functions With Parameters - Example Code.sql

71 - User Defined Functions - Exercises (Time: 1 min)

Resource: User Defined Functions - Exercise SOLUTIONS.sql

72 - Table-Valued Functions (Time: 14 min)

Resource: TVFs - Example Code.sql

73 - Table-Valued Functions - Exercise (Time: 0 min)

Resource: TVFs - Exercise SOLUTION.sql

74 - Stored Procedures (Time: 11 min)

Resource: Stored Procedures - Example Code.sql

75 - Stored Procedures - Exercise (Time: 0 min)

Resource: Stored Procedures - Exercise SOLUTION.sql

76 - Control Flow With IF Statements (Time: 12 min)

Resource: Control Flow With IF Statements - Example Code.sql

77 - Control Flow With IF Statements - Exercise (Time: 0 min)

Resource: Control Flow With IF Statements - Exercise SOLUTION.sql

78 - Using Multiple IF Statements (Time: 8 min)

Resource: Using Multiple IF Statements - Example Code.sql

79 - Using Multiple IF Statements - Exercise (Time: 0 min)

Resource: Using Multiple IF Statements - Exercise SOLUTION.sql

80 - Dynamic SQL - Part 1 (Time: 10 min)

Resource: Dynamic SQL Part 1 - Example Code.sql

81 - Dynamic SQL - Part 2 (Time: 14 min)

Resource: Dynamic SQL Part 2 - Example Code.sql

82 - Dynamic SQL - Exercises (Time: 1 min)

Resource: Dynamic SQL - Exercise SOLUTIONS.sql

## Course ID: 2186622 - Python GUI Programming Using Tkinter and SQLite3

### Section 01 - Course Introduction (Index: 1)

01 - Course Introduction (Time: 2 min)

02 - Welcome - Lets Get Started! (Time: 4 min)

### Section 02 - CoinMarketCap API (Index: 2)

03 - What is API? (Time: 4 min)

04 - Working with CoinMarketCap API (Time: 7 min)

Resource: Registered CoinMarketCap API Link Structure

05 - API Format (Time: 4 min)

Resource: JSON Formatter

### Section 03 - Working with Data (Index: 3)

06 - Fetching API Data (Time: 4 min)

07 - Extracting API and Coin Data (Time: 5 min)

### Section 04 - Working With Portfolio (Index: 4)

08 - Creating Coin List & Understanding Portfolio (Time: 7 min)

09 - Creating Portfolio Dictionary (Time: 5 min)

10 - Calculating Profit and Loss (Time: 9 min)

Resource: Repl Source Code

### Section 05 - Tkinter (Index: 5)

11 - GUI Introduction - Graphical User Interface (Time: 3 min)

12 - Understanding 3 Steps Tkinter Working (Time: 3 min)

13 - Tkinter Main Window and Labels (Time: 5 min)

### Section 06 - Application Formatting (Index: 6)

14 - Adding Header (Time: 6 min)

15 - Adding More Data (Time: 6 min)

16 - Improving User Interface (Time: 8 min)

17 - Color Indication For Profit and Loss (Time: 5 min)

18 - Adding Update Button (Time: 5 min)

### Section 07 - Converting .PY File to .EXE File (Index: 7)

19 - Creating Executable App (.exe file) (Time: 6 min)

### Section 08 - Database Basics - SQLite3 (Index: 8)

20 - Databases - SQL vs SQLite3 (Time: 4 min)

21 - Introduction to SQLite3 and its Workings (Time: 3 min)

22 - Creating Table | Working with DB Browser (Time: 4 min)

Resource: DB Browser For SQLite

Resource: SQLite Data Types

23 - Insert Values - Databases (Time: 4 min)

24 - Update Values - Databases (Time: 2 min)

25 - Fetching Data From Database (Time: 5 min)

26 - Delete Data - Database (Time: 3 min)

27 - Creating Functions For Operation - Database (Time: 4 min)

### Section 09 - Connecting Database With Tkinter Application (Index: 9)

28 - Connecting With Database (Time: 4 min)

29 - Fetching Data From Database (Time: 4 min)

### Section 10 - Modifying Application (Index: 10)

30 - Modifying Current Application (Time: 5 min)

### Section 11 - Adding Insert, Update, Delete Buttons (Index: 11)

31 - Adding "Add Coin" Button (Time: 6 min)

32 - Adding "Update Coin" - "Delete Coin" Button (Time: 6 min)

### Section 12 - Clearing Tkinter Window (Index: 12)

33 - Solving Multiple Layer Issue (Time: 6 min)

### Section 13 - Adding Notification and Navigation System (Index: 13)

34 - Adding Notification System - Popup Box (Time: 3 min)

35 - Adding Navigation System - Menu Bar (Time: 7 min)

Resource: Complete Source Code

Resource: Complete Source Code - Github

### Section 14 - Thank You For Being Here! (Index: 14)

36 - Thank You For Being Here! (Time: 1 min)

### Section 15 - Bonus (Index: 15)

37 - Bonus - Complete Roadmap For Future (Time: 0 min)

## Course ID: 2847630 - Working with Binary Data in Python 3

### Section 01 - Introduction (Index: 1)

01 - Course overview (Time: 3 min)

### Section 02 - Basics of bytes (Index: 2)

02 - The Bytes type (Time: 3 min)

Resource: bytes\_type.py

03 - Formatting output (Time: 8 min)

Resource: format\_output.py

04 - The Bytearray type (Time: 2 min)

Resource: bytesarray\_example.py

05 - The BytesIO class (Time: 4 min)

Resource: bytesio\_example.py

### Section 03 - Bitwise Operations (Index: 3)

06 - Overview of Bitwise Operations (Time: 3 min)

Resource: Bitwise Operators.pdf

Resource: bitwise\_operators.py

07 - AND Operation (Time: 5 min)

08 - OR Operation (Time: 2 min)

09 - XOR Operation (Time: 2 min)

10 - Ones Complement (Time: 4 min)

11 - Bit Shifting (Time: 2 min)

### Section 04 - Conversion (Index: 4)

12 - Introduction (Time: 1 min)

Resource: conversion.py

13 - Convert a large integer to bytes (Time: 7 min)

14 - Convert a list of small integers to bytes (Time: 2 min)

15 - Convert a binary string to a byte (Time: 2 min)

16 - Convert bytes to an integer (Time: 4 min)

17 - Convert hexadecimal strings (Time: 4 min)

### Section 05 - Working with files (Index: 5)

18 - Write bytes to a file (Time: 4 min)

Resource: file\_examples.py

19 - Get metadata about a file (Time: 4 min)

20 - Read Bytes from a File (Time: 3 min)

21 - Seek a position in a file (Time: 7 min)

### Section 06 - Struct packing and unpacking (Index: 6)

22 - What is struct packing? (Time: 2 min)

Resource: Struct Packing.pptx

Resource: struct\_examples.py

23 - Example of struct packing (Time: 7 min)

24 - Example of unpacking a struct (Time: 4 min)

### Section 07 - Encoding (Index: 7)

25 - Intro to Encoding (Time: 4 min)

Resource: encoding\_examples.py

26 - ASCII encoding (Time: 2 min)

27 - UTF-8 encoding (Time: 2 min)

28 - Base64 encoding (Time: 4 min)

### Section 08 - Code Examples (Index: 8)

29 - Code examples (Time: 0 min)

Resource: create\_stego\_zip\_jpg.py

Resource: diff.py

Resource: extract\_pngs.py

Resource: find\_ascii\_in\_binary.py

Resource: find\_ascii\_in\_binary.py

Resource: is\_jpeg.py

Resource: read\_boot\_sector.py

### Section 09 - Conclusion (Index: 9)

30 - Course recap (Time: 3 min)

## Course ID: 3118336 - Advance Tally Prime + GST + Accounting - Certificate Course

### Section 01 - Theoretical Accounting or Basic Concepts of Accounting (Index: 1)

01 - Introduction to Accounting (Time: 16 min)

02 - Golden Rules of Accounting with Manual Journal Entries via game (Time: 14 min)

03 - Understanding & preparing Ledgers Manually (Time: 6 min)

04 - Understanding & Preparing Trial Balance, Profit & Loss & Balance Sheet manually (Time: 7 min)

05 - Understanding varied Financial Year in Accounting world (Time: 6 min)

06 - How to use this Course (Time: 0 min)

### Section 02 - Let's Start Tally.Erp9 from Start installing to Advance Transaction (Index: 2)

07 - Download Tally Erp9 software from here.. (Time: 0 min)

### Section 03 - Steps towards Computeised Accounting using Tally Erp9 with GST (Index: 3)

08 - Understanding Keyboard Conventions in Tally Erp9 with GST (Time: 2 min)

09 - Company Creation, Alteration, Deletion in Tally Erp9 (Time: 7 min)

10 - User Interface of Tally Software (Time: 5 min)

11 - Posting Opening balances in Tally.ERP 9 (Time: 9 min)

12 - Working on Ledgers and Groups in Tally .Erp9 with GST (Time: 9 min)

13 - Understanding Groups of Accounts with Balance Sheet (Time: 10 min)

### Section 04 - Time to Record day to day transaction in Tally Erp9 (Index: 4)

14 - Recording Purchase Transaction (Time: 3 min)

15 - Sales Transaction (Time: 5 min)

16 - Recording Receipt (Time: 6 min)

17 - Recording Credit Sale & Purchase transactions (Time: 6 min)

18 - Recording Contra Entries (Time: 5 min)

19 - Recording Transactions in Journal Voucher (Time: 4 min)

20 - Recording other misc. transactions & Analyzing reports (Time: 5 min)

21 - Analyzing Trial Balance, Profit & Loss A/c, Balance Sheet & other reports (Time: 8 min)

22 - Assignment (Time: N/A)

### Section 05 - Integrate Accounts and Inventory (Index: 5)

23 - Setting the Features to Integrate Accounts with Inventory (Time: 2 min)

24 - Creating Stock Items & Stock Units (Time: 3 min)

25 - Recording sale and purchase transaction with stock (Time: 7 min)

26 - Entering Opening Business Stock in Tally.ERP9 (Time: 6 min)

27 - Effects of Stock in Stock Reports and other Statements (Time: 5 min)

### Section 06 - Understanding and Recording GST in Tally Erp9 (Index: 6)

28 - Overview of GST (Time: 10 min)

29 - Defining & Recording GST Invoices at Company Level (Time: 17 min)

30 - Defining & Recording GST Invoices at Stock Group Level (Time: 7 min)

31 - Defining & Recording GST Invoices at Stock Item Level (Time: 4 min)

32 - Understanding GST Returns (Time: 3 min)

33 - Recording Inter State Sales to Unregistered Dealer (B2C) & Effects on GSTR1 (Time: 4 min)

34 - Recording Sales to Consumer (B2C) (Time: 4 min)

35 - Concept of Change in Tax Rate (Time: 9 min)

36 - GST Based on Item Value (Time: 9 min)

37 - Assignment 2 (Time: N/A)

38 - Assignment 3 (Time: N/A)

### Section 07 - Advance GST Transactions in Tally Erp9 with GST (Index: 7)

39 - Recording & Generating Credit Note Interstate for Registered Dealer (Time: 6 min)

40 - Credit Note for Unregistered dealer with GST Returns (Time: 3 min)

41 - Debit Note with GST & GST returns (Time: 4 min)

42 - Recording Transactions of Zero Rated Goods (Time: 5 min)

43 - Recording Exempted Export Transactions in GST (Time: 4 min)

44 - Advance Received towards supply of Goods (PART 1) (Time: 10 min)

45 - GST against advance received (PART 2) (Time: 6 min)

46 - Set-Off-Tax Liablity towards Advance Received and Adjustment Entries (PART 3) (Time: 6 min)

47 - GST Sales to SEZ (Special Economic Zone) (Time: 13 min)

### Section 08 - GST Transactions for Service Organisation in Tally Erp9 with GST (Index: 8)

48 - Supply of Services with GST & GST returns in Tally Erp9 with GST (Time: 4 min)

49 - Recording Import of Services with Adjustment Entries & returns (Time: 7 min)

50 - Availing Input Tax Credit (Time: 9 min)

### Section 09 - RCM - Reverse Charge Mechanism (Index: 9)

51 - Understanding the concept of RCM (Time: 5 min)

52 - Purchase from URD (unregistered dealer) under RCM (Time: 10 min)

53 - Service Received from Goods Transport Agency(GTA) under RCM (Time: 12 min)

### Section 10 - E-way (Index: 10)

54 - Understanding the concept of E-way Bill (Time: 5 min)

55 - Handling E-way Bill transactions in Tally.ERP9 (Time: 9 min)

### Section 11 - Composition Scheme (Index: 11)

56 - Introduction to Composition Scheme & Recording Sales & Purchase GST TransactionS (Time: 10 min)

57 - GSTR4 for Composition Dealers (Time: 3 min)

### Section 12 - Managing Manufacturing Transactions in Tally .Erp9 (Index: 12)

58 - Manufacturing Entries using Bills of Material (Time: 16 min)

### Section 13 - TDS - Tax Deducted at Source in Tally erp9 (Index: 13)

59 - Understanding the term TDS (Time: 4 min)

60 - Configuring the settings & creating masters for TDS transaction in Tally.Erp9 (Time: 7 min)

61 - Recording Expenses & TDS deduction in Tally.ERP 9 (Time: 8 min)

62 - TDS Transaction on Advance payment (Time: 4 min)

63 - Payment of TDS & TDS reports (Time: 4 min)

### Section 14 - Banking - Bank Reconciliation in Tally .Erp9 (Index: 14)

64 - Introduction to Bank Reconciliation in Tally.Erp9 (Time: 5 min)

65 - Setting Cheque book in Tally.ERP for Bank A/C (Time: 3 min)

66 - Opening BRS- Unreconciled transactions of last year in Tally.Erp9 (Time: 4 min)

67 - Recording Bank Related Transaction & Finalizing BRS in Tally.Erp9 (Time: 8 min)

### Section 15 - Payroll in Tally erp9 (Index: 15)

68 - Introduction to Payroll in Tally Erp9 (Time: 15 min)

69 - Enabling Payroll & Creating Masters in Tally.ERP 9 (Time: 23 min)

70 - Recording Attendance & Overtime details in Tally.ERP 9 (Time: 4 min)

71 - Posting Payroll Vouchers in Tally.ERP 9 (Time: 7 min)

72 - Analyzing Payroll reports in Tally.ERP 9 (Time: 3 min)

### Section 16 - Cost Center, Group and Categories in Tally.Erp9 (Index: 16)

73 - Creating Cost Center using pre-defined cost center in Tally.ERP9 (Time: 10 min)

74 - Cost centre groups & cost categories in Tally.ERP9 (Time: 13 min)

### Section 17 - Backup and Restore of Data in Tally.Erp9 (Index: 17)

75 - Manual and Auto Back, Manual and auto restore in Tally.erp9 (Time: 6 min)

### Section 18 - MIS Reports for Managerial Level in Tally.Erp9 (Index: 18)

76 - MIS (Time: 6 min)

### Section 19 - Let's Start Tally Prime With GST Complete Course (Latest Version) (Index: 19)

77 - Download and Install Latest Tally Prime Software (Free) (Time: 8 min)

Resource: Download Tally Prime Latest Software from Given Link for Free

### Section 20 - Working in Tally Prime Latest Software (Index: 20)

78 - KeyBoard Shortcuts in Tally Prime with GST (Time: 5 min)

79 - Company Creation in Tally Prime with GST (Time: 16 min)

80 - Multiple Available Methods to work in Tally Prime (Time: 5 min)

81 - Working with Existing Business Entries in Tally Prime with GST (Time: 8 min)

82 - Working with Ledgers and Groups in Tally Prime with GST (Time: 16 min)

83 - Understanding Grouping of Accounts in Tally Prime (Time: 9 min)

### Section 21 - Record Daily Transaction in Tally Prime with GST (Index: 21)

84 - Types of Vouchers in Tally Prime (Time: 7 min)

85 - Purchase Entry in Tally Prime (Time: 3 min)

86 - Sales Entry in Tally Prime (Time: 2 min)

87 - Receipt Entry in Tally Prime (Time: 4 min)

88 - Credit Purchase and Credit Sales Entry in Tally Prime (Time: 6 min)

89 - Contra Entries in Tally Prime (Time: 7 min)

90 - Journal Entries in Tally Prime (Time: 9 min)

91 - Other Day To Day Transaction or Entries in Tally Prime (Time: 9 min)

92 - Reports - Balance Sheet, Trial Balance, Profit & Loss in Tally Prime (Time: 8 min)

### Section 22 - Working with Stock in Tally Prime with GST (Index: 22)

93 - Activate the Inventory Feature in Tally Prime with GST (Time: 2 min)

94 - Create Stock Items & Measurement Units in Tally Prime with GST (Time: 6 min)

95 - Sale/Purchase Billing/Invoicing in Tally Prime with GST (Time: 7 min)

96 - Opening/Existing Stock Items in Tally Prime (Time: 2 min)

97 - Stock Reports - Tally Prime (Time: 9 min)

### Section 23 - Let's Start working with GST for Regular Dealer in Tally Prime (Index: 23)

98 - Basic Understanding of GST (Time: 10 min)

99 - Set Features & Configuration of GST New Company and Set Tax at Company Level (Time: 6 min)

100 - Set GST at Stock Group Level in Tally Prime (Time: 10 min)

101 - Set GST at Stock Item Level in Tally Prime with GST (Time: 4 min)

102 - Understand GST Returns in Tally Prime (Time: 5 min)

103 - B2C- Interstate sales to Unregistered & its effects on GSTR-1 (Time: 4 min)

104 - B2C - Sales to Consumer in Tally Prime (Time: 4 min)

105 - B2C (Large) - Sales to Consumer and its Effects on GST Reports in Tally Prime (Time: 4 min)

106 - Change in Tax Rate in Tally Prime with GST (Time: 7 min)

107 - GST Based on Item value in Tally Prime (Time: 7 min)

### Section 24 - Advance GST Transactions in Tally Prime with GST and GST Reports (Index: 24)

108 - Generating Credit Note Interstate for Registered & Unregistered Dealer (Time: 6 min)

109 - Debit Note with GST & GST returns in Tally Prime Software (Time: 2 min)

110 - Zero Rated Goods in Tally Prime Software and its effects on GST Reports (Time: 6 min)

111 - Recording Exempted Export Transactions in GST in Tally Prime Software (Time: 5 min)

112 - Advance Received towards supply of Goods (PART 1) in Tally Prime Software (Time: 10 min)

113 - GST against advance received (PART 2) in Tally Prime Software (Time: 8 min)

114 - Set-Off-Tax Liability towards Advance Received and Adjustment Entries (PART 3) (Time: 6 min)

115 - GST Sales to SEZ (Special Economic Zone) in Tally Prime Software (Time: 6 min)

### Section 25 - GST Transactions for Service Organisation in Tally Prime with GST (Index: 25)

116 - Supply of Services with GST & GST returns in Tally Prime Software (Time: 4 min)

117 - Recording Import of Services with Adjustment Entries & returns in Tally Prime (Time: 7 min)

118 - Availing Input Tax Credit & Payment of GST in Tally Prime Software (Time: 5 min)

### Section 26 - Order Processing in Tally Prime (Index: 26)

119 - Creating Purchase Order & Sales Order in Tally Prime Software (Time: 10 min)

120 - Generating Receipt Note & Delivery Note in Tally Prime Software (Time: 8 min)

121 - Generating Purchase & Sale Invoice in respect to above orders in Tally Prime (Time: 4 min)

122 - Creating Purchase Return & Sale return in respect to above orders in Tally Prime (Time: 6 min)

### Section 27 - RCM- Reverse Charge Mechanism in Tally Prime Software (Index: 27)

123 - Understanding the concept of RCM (Time: 5 min)

124 - Purchase from URD (unregistered dealer) under RCM in Tally Prime Software (Time: 11 min)

### Section 28 - E-way Bill in Tally Prime (Index: 28)

125 - Understanding the concept of E-way Bill (Time: 3 min)

126 - Handling E-way Bill transactions in Tally Prime Software (Time: 14 min)

### Section 29 - Composition Scheme in Tally Prime Software (Index: 29)

127 - Introduction to Composition Scheme & Recording Sales & Purchase GST Transactions (Time: 9 min)

128 - GSTR4 Report in Composition Dealers in Tally Prime Software (Time: 3 min)

### Section 30 - TDS - Tax Deducted at Source in Tally Prime Software (Index: 30)

129 - Understanding the term TDS (Time: 4 min)

130 - Configuring the settings & creating masters for TDS transaction in Tally Prime (Time: 7 min)

131 - Recording Expenses & TDS deduction in Tally Prime Software (Time: 7 min)

132 - TDS Transaction on Advance payment in Tally Prime Software (Time: 4 min)

133 - Payment of TDS & TDS reports in Tally Prime Software (Time: 4 min)

### Section 31 - Banking - Bank Reconciliation in Tally Prime Software (Index: 31)

134 - Introduction to Bank Reconciliation (Time: 5 min)

135 - Setting Cheque book in Tally for Bank A/C in Tally Prime Software (Time: 3 min)

136 - Opening BRS- Unreconciled transactions of last year in Tally Prime Software (Time: 4 min)

137 - Recording Bank Related Transaction & Finalizing BRS in Tally Prime Software (Time: 8 min)

### Section 32 - Payroll concepts and working in Tally Prime Software (Index: 32)

138 - Concepts of Payroll (Time: 15 min)

139 - Enabling Payroll & Creating Masters in Tally Prime Software (Time: 22 min)

140 - Recording Attendance & Overtime details in Tally Prime Software (Time: 3 min)

141 - Posting Payroll Vouchers in Tally Prime Software (Time: 6 min)

142 - Analyzing Payroll reports in Tally Prime Software (Time: 3 min)

### Section 33 - Cost Center, Group and Categories in Tally Prime (Index: 33)

143 - Creating Cost Center using pre-defined cost center in Tally Prime Software (Time: 4 min)

144 - Cost centre groups & cost categories in Tally Prime Software (Time: 6 min)

### Section 34 - Collect your certificate (Index: 34)

145 - Collect your certificate (Time: 0 min)

## Course ID: 3195180 - GST Returns Course (Live Working) : Get Certified Today

### Section 01 - GST structure, Types of returns, Due dates, Documentation & process of filing. (Index: 1)

01 - Introduction to GST Structure. (Time: 14 min)

02 - Documentation and Process required for GST Registration (Time: 6 min)

03 - GST returns and due dates for filing (Time: 13 min)

### Section 02 - Register for PAN CARD, TAN NO. & DIGITAL SIGNATURE CERTIFICATE on Govt. website. (Index: 2)

04 - Online Application for PAN (Time: 14 min)

05 - Online Application for TAN (Time: 12 min)

06 - Registering for Digital Signature Certificate & INSTALLING emSigner (Time: 4 min)

### Section 03 - GST Registration on GST Govt Website (Index: 3)

07 - Online GST Registration for Normal Taxpayer (Time: 26 min)

08 - Online GST Registration for Practitioner's (Time: 10 min)

### Section 04 - Filing of New Returns (Beta/Trial) on Govt website (Index: 4)

09 - New Returns Dashboard - Managing Profile & changing return type (Time: 6 min)

10 - Form GST ANX-1 (Details of outward ,imports & inward supplies ATTRACTING RCM) (Time: 14 min)

11 - Form GST ANX-2 (Details of auto drafted inward supplies) (Time: 12 min)

12 - Form GST RET 1 - Filing of Return by Normal Taxpayers (Monthly) (Time: 19 min)

13 - Form GST RET 2 - Filing of Return by Sahaj Taxpayers (Quarterly) (Time: 9 min)

14 - Form GST RET 3 - Filing of Return by Sugam Taxpayers (Quarterly) (Time: 2 min)

### Section 05 - Filing GSTR 1, making payment and importing E-WAY BILL on website (Index: 5)

15 - Filing GSTR-1 & Importing e-Way Bill Data in GSTR-1 (Part 1) (Time: 21 min)

16 - Filing GSTR-1 & Importing e-Way Bill Data in GSTR-1 (Part 2) (Time: 16 min)

17 - Filing GSTR-1 & Importing e-Way Bill Data in GSTR-1 (Part 3) (Time: 8 min)

18 - Downloading, Installing and Uploading invoices in GSTR-1/ Taking Actions in GSTR (Time: 18 min)

### Section 06 - Filing Returns GSTR-2 to GSTR-11 on Govt website. (Index: 6)

19 - Viewing GSTR-2A (Time: 5 min)

20 - Filing GSTR-3B (Time: 12 min)

21 - Filing GSTR-3B Nil Return (Time: 4 min)

22 - Creating and Filing details in Form GST CMP-08 (Time: 3 min)

23 - Viewing GSTR-4A (Time: 4 min)

24 - Filing GSTR-5 (Time: 7 min)

25 - Filing GSTR-5A (Time: 11 min)

26 - Filing GSTR-6 (Time: 18 min)

27 - GSTR-6A (Time: 3 min)

28 - Filing GSTR-7 (Time: 11 min)

29 - GSTR-7A (Time: 3 min)

30 - Filing GSTR-8 (Time: 13 min)

31 - Filing GSTR-9 (Time: 22 min)

32 - Filing GSTR-10 (Time: 13 min)

33 - Filing GSTR-11 (Time: 8 min)

### Section 07 - Returns Offline Utility Tools on website. (Index: 7)

34 - GSTR3B, GSTR 4, GSTR6,GSTR7, GSTR8, GSTR9,9A,9C GSTR8, GSTR10, GSTR11 by offline (Time: 5 min)

35 - Tracking Return Status (Time: 3 min)

36 - Viewing e-Filed Returns (Time: 2 min)

### Section 08 - TDS/ TCS and INPUT TAX CREDIT adjustments on Govt website (Index: 8)

37 - Comparison of Liability Declared and ITC Claimed (Time: 12 min)

38 - Filing TDS and TCS Credit Received (Time: 9 min)

39 - Filing Form GST ITC-01 - Declaration for Claim of ITC on New GST Registration (Time: 9 min)

### Section 09 - Composition Levy on Govt website (Index: 9)

40 - Form CMP-02 Opt for composition scheme (Time: 4 min)

41 - Form CMP-04 Withdrawal from composition scheme (Time: 4 min)

42 - Form CMP-03 Intimation of stock details by migrated taxpayers (Time: 7 min)

### Section 10 - "Registration Services" on Govt website. (Index: 10)

43 - Amendment, Tracking & cancellation of GST Registration (Time: 6 min)

### Section 11 - "Refunds Services" on Govt website (Index: 11)

44 - Refund pre-application , viewing submitted app., tracking refund status on GSTN (Time: 4 min)

### Section 12 - GST Law, GST Act and Ammendments on Central Govt. Portal. (Index: 12)

45 - Accessing Act, Rule, Amendment, Notifications, etc. relating to GST Law (Time: 3 min)

### Section 13 - "Searching Taxpayer Services" on GST Govt website (Index: 13)

46 - Search by GSTIN, UIN, PAN, Composition Taxpayer. (Time: 3 min)

### Section 14 - Bonus Lecture (Index: 14)

47 - Bonus Lecture (Time: 0 min)

## Course ID: 3465656 - TallyPrime+GST+Payroll+IncomeTax+TDS+TCS+MSExcel (ComboPack)

### Section 01 - S1 : Basics of Commerce, Accounting (Index: 1)

01 - S1.1 What is Commerce (Time: 2 min)

Resource: S1.1 What is Commerce.pdf

02 - S1.2 What is Accounting, Why do we need it (Time: 3 min)

Resource: S1.2 What is Accounting & Why Do We Need It.pdf

03 - S1.3 Double Entry Accounting System Steps, Structure (Time: 8 min)

Resource: S1.3 Double Entry Systems - Practical Steps.pdf

Resource: S1.3 Double Entry System Step-Structure.pdf

04 - S1.4 Golden Rules of Accounts (Time: 3 min)

Resource: S1.4 Golden Rules of Accounts.pdf

05 - S1.5 Importance of Accounting (Time: 6 min)

Resource: S1.5 Importance of Accounting.pdf

06 - S1.6 Branches of Accounting (Time: 8 min)

Resource: S1.6 Branches of Accounting.pdf

07 - S1.7 Bases of Accounting (Time: 2 min)

Resource: S1.7 Bases of Accounting.pdf

08 - S1.8 Book Keeping vs Accounting (Time: 2 min)

Resource: S1.8 BOOK KEEPING VS ACCOUNTING.pdf

09 - S1.9 Basic terms used in Accounting (Time: 18 min)

Resource: S1.9 Basic terms used in Accounting.pdf

10 - S1.10 Concepts of Accounting (Time: 7 min)

Resource: S1.10 Fundamental Concepts of Accounting.pdf

11 - S1.11 Accounting Standards (Time: 3 min)

Resource: S1.11 Accounting Standards.pdf

12 - S1.12 The 3-Step Journalizing Method (Time: 9 min)

Resource: S1.12 Excel file with Filled Data.xlsx

Resource: S1.12 Excel Practice file without Data.xlsx

Resource: S1.12 The 3-Step Journalizing Method Journals PDF with Data.pdf

Resource: S1.12 The 3-Step Journalizing Method PDF.pdf

13 - S1.13 The Journal - First Book of Entry in Accounting (Time: 14 min)

Resource: S1.13 Excel file with Filled Data.xlsx

Resource: S1.13 Excel Practice file without Data.xlsx

14 - S1.14 Ledger Proforma (Time: 4 min)

15 - S1.15 Posting to Ledger - Transferring Journal Entries Accurately (Time: 16 min)

Resource: S1.15 Excel file with Filled Data.xlsx

Resource: S1.15 Excel Practice file without Data.xlsx

16 - S1.16 Balancing the Ledger - Finding Closing Balances (Time: 12 min)

17 - S1.17 Trial Balance - Checking Mathematical Accuracy of Accounts (Time: 5 min)

18 - S1.18 Final Accounts - Structure (Time: 4 min)

19 - S1.19 Preparing Trading Account - Calculating Gross Profit or Loss (Time: 6 min)

20 - S1.20 Profit & Loss Account - Finding Net Profit or Loss (Time: 5 min)

21 - S1.21 Balance Sheet (Time: 7 min)

### Section 02 - S2. Course Tips, Download Materials and Practice Notes (Index: 2)

22 - S2.1 Download Materials (Time: 2 min)

Resource: S2.1 Course Tips, Download Materials.pdf

23 - S2.2 How to Watch & Practice Videos (Time: 3 min)

### Section 03 - S3. TallyPrime Basics (Index: 3)

24 - S3.1 Overview on Tally - History, Advantages, Releases (Time: 5 min)

Resource: S3.1- Overview on Tally – History, Advantages, and Releases.pdf

25 - S3.2 Tally License Modules and Pricing (Time: 5 min)

Resource: S3.2 Pricing of Tally Application – Modules of Licenses.pdf

26 - S3.3 Download and Installation of Tally Prime (Time: 10 min)

Resource: S3.3- Download and Installation – Update TallyPrime.pdf

27 - S3.4 Licensing options – Education mode, License from network and Activate New L (Time: 8 min)

Resource: S3.4 Licensing Options – Education Mode, License from Network, Reactivate License, Activate New License.pdf

28 - S3.5 Change default data saving path I Company Data Saving Path (Time: 5 min)

29 - S3.6 Create your first company –Create, Alter, Shut, Delete, Default Loading Com (Time: 17 min)

Resource: S3.6- Company Creation, Alteration, Shut, and Delete in TallyPrime.pdf

30 - S3.7 TallyPrime – pre-defined voucher an Introduction (Time: 6 min)

31 - S3.8 3-Essentials for Passing Vouchers (Time: 8 min)

Resource: S3.8 3-Essential for Passing Vouchers.pdf

Resource: S3.8 Chart of Accounts.pdf

32 - S3.9 Traditional Recording vs Smart Recording (Time: 8 min)

33 - S3.10 Tally Primes Single Entry Mode vs Double Entry Mode (Time: 7 min)

34 - S3.11 Recording Simple Purchases and Sales (Time: 32 min)

Resource: S3.11 Recording simple purchases & Sales.pdf

Resource: S3.11 Excel with Data.xlsx

Resource: S3.11 Excel without Data.xlsx

35 - S3.12 Recording Contra, Receipt, Payment vouchers in Tally Prime (Time: 21 min)

Resource: S3.12 Recording Contra, receipt, payment vouchers.pdf

36 - S3.13 Recording Journals in Tally Prime (Time: 13 min)

Resource: S3.13 Recording Journals in TallyPrime.pdf

37 - S3.14 How to Update Opening balance of ledger, Opening Stock for Items (Time: 6 min)

Resource: S3.14 How to update opening balance for ledger, opening stock for items.pdf

### Section 04 - S4. Billing in TallyPrime with GST (Index: 4)

38 - S4.1 What is GST-a short Introduction to GST (Time: 4 min)

Resource: S4.1- What is GST - A Short Introduction to GST.pdf

39 - S4.2 GST Classifications and Place of Supply (Time: 3 min)

Resource: S4.2 GST Classifications and Place of Supply.pdf

40 - S4.3 Know Your PAN & GST Number (Time: 5 min)

Resource: S4.3 Know Your PAN & GST Number.pdf

41 - S4.4 Know About HSN-SAC Codes (Time: 5 min)

Resource: S4.4 HSN Codes for GST.pdf

Resource: S4.4 SAC Codes for GST.pdf

Resource: S4.4 Know About HSN-SAC Codes PPT PDF.pdf

42 - S4.5 Know difference between Taxable, Exempted, Nil Rated (Time: 4 min)

Resource: S4.5 Know difference between Taxable, Exempted, Nil Rated.pdf

43 - S4.6 Types of GST Registrations & Their Applicable Returns (Time: 10 min)

Resource: S4.6 Types of GST Registrations & Their Applicable Returns.pdf

44 - S4.7 Recording GST Purchases & Sales – Traditional Method (Time: 37 min)

Resource: S4.7 Recording GST Purchases & Sales – Traditional Method PDF.pdf

45 - S4.8 Recording GST with Auto Billing (Time: 9 min)

Resource: S4.7 Recording GST Purchases & Sales – Traditional Method PDF.pdf

46 - S4.9 GST Rates Configuration on different levels (Time: 18 min)

Resource: S4.9 GST Rates Configuration on different levels PDF.pdf

47 - S4.10 GST Rates Based on Product Price (Time: 3 min)

Resource: S4.10 GST rate based on product price PDF.pdf

48 - S4.11 Recording GST Services (Time: 7 min)

Resource: S4.11 Recording GST Services PDF.pdf

49 - S4.12 Recording GST Expenses Claimable and Non-claimable (Time: 7 min)

Resource: S4.12 Recording GST Assets – claimable and non-claimable PDF.pdf

50 - S4.13 Recording GST Assets – claimable and non-claimable (Time: 17 min)

Resource: S4.13 Recording GST Expenses Claimable and Non-claimable PDF.pdf

51 - S4.14 How to Create Ledgers using GSTIN, Import GSTIN (Time: 4 min)

52 - S4.15 How Check Party's GST Filing Status (Time: 2 min)

53 - S4.16 How to View ITC at Risk Balance (Time: 3 min)

54 - S4.17 Billing Configuration – Company Logo (Time: 3 min)

Resource: S4.17 Billing Configuration – Company Logo.pdf

Resource: S4.17 LOGO.jpg

55 - S4.18 Billing Configuration – Additional Description for Stock items & Ledgers (Time: 3 min)

Resource: S4.18 Billing Configuration – Additional Description for Stock Items & Ledgers.pdf

56 - S4.19 Billing Configuration – Enable Rate Inclusive of Taxes column (Time: 3 min)

Resource: S4.19 Billing Configuration – Enable Rate Inclusive of Taxes Column.pdf

57 - S4.20 Billing Configuration – Update Sales Voucher Numbering (Time: 3 min)

Resource: S4.20 Billing Configuration – Update Sales Voucher Numbering.pdf

58 - S4.21 Printing Preferences-Cust Seal and Signature, Jurisdiction, Bank Details, (Time: 5 min)

Resource: S4.21 Printing Configuration – Invoice Status, Bank Details, Jurisdiction, Customer Seal & Signature.pdf

59 - S4.22 Optimize Printing Paper Size (Time: 4 min)

Resource: S4.22 Optimize Paper Printing Size.pdf

### Section 05 - S5: GST Filing, E-Invoice & E-waybill generations (Index: 5)

60 - S5.1 Understanding GST Returns & Types (Time: 10 min)

Resource: S5.1 Understanding GST Returns & Types.pdf

61 - S5.2 GST Tax Computation and Adjustments (Time: 6 min)

Resource: S5.2 GST Tax Computation & Adjustments & ITC Utilization Chart.pdf

62 - S5.3 Learn GSTR-1 Tables (Time: 44 min)

63 - S5.4 GSTR-1 Nil Filing (Time: 2 min)

64 - S5.5 GSTR-1 Filing using TallyPrime I Export and Upload JSON (Time: 23 min)

65 - S5.6 Error Report Validation using – GST Offline Tool (Time: 9 min)

66 - S5.7 GSTR-1 Filing with Tally Prime I API Facility (Time: 4 min)

67 - S5.8 GSTR-1 & GSTR-1A Amendments (Time: 6 min)

68 - S5.9 Handling IMS Invoice Management System Dashboard GSTR-2A IMS GSTR-2B (Time: 20 min)

69 - S5.10 Purchases GSTR2B Reconciliation - Manual and Auto (Time: 15 min)

70 - S5.11 GSTR-3B Nil Filing (Time: 2 min)

71 - S5.12 GSTR-3B Filing With Tax Liability Payment (Time: 8 min)

72 - S5.13 GSTR-3B Filing, Liability Adjusted By ITC (Time: 9 min)

73 - S5.14 GST ITC Adjustments - April - Local Purchases & Local Sales (Time: 20 min)

74 - S5.15 GST ITC Adjustments - May - Local Purchases & Non Local Sales (Time: 10 min)

75 - S5.16 GST ITC Adjustments - June - Non Local Purchases & Local Sales (Time: 13 min)

76 - S5.17 GST ITC Adjustments - July - Non Local Purchases & Non Local Sales (Time: 6 min)

77 - S5.18GST ITC Adjustments-August-Local Purchases & Non Local Sales Cum Local Sale (Time: 16 min)

78 - S5.19 GST ITC Adjustments - September - Mixed Purchases & Mixed Sales (Time: 20 min)

79 - S5.20 GST ITC Adjustments - October - Higher Purchases & Less Sales (Time: 7 min)

80 - S5.9 E-Way Bill-Registration (Time: 4 min)

Resource: S5.9 E-Way Bill Registration.pdf

81 - S5.10 E-WAYBILL Generation, Cancellation, Update and more (Time: 7 min)

Resource: S5.10 E-Way Bill Generation, Update & Cancellation in Portal.pdf

82 - S5.11 E Invoice Introduction (Time: 2 min)

Resource: S5.11 E-Invoice Introduction.pdf

83 - S5.12 E-Invoice - GSTIN Registration of E Invoice Portal (Time: 1 min)

Resource: S5.12 E-Invoice - GSTIN Registration on E-Invoice Portal.pdf

84 - S5.13 E-Invoice Enablement for GSTIN on E Invoice Portal (Time: 2 min)

Resource: S5.13 E-Invoice Enablement for GSTIN on E-Invoice Portal.pdf

85 - S5.14 E-Invoice - API User Creation for Your Accounting Software (Time: 4 min)

Resource: S5.14 E-Invoice - API User Creation for Your Accounting Software.pdf

86 - S5.15 Generate E-Invoice using Tally - Generate and E-Invoice ,Print within Tall (Time: 5 min)

Resource: S5.15 Generate E-Invoice using Tally - Generate and Print E-Invoice within Tally using API Logins.pdf

87 - S5.16 E - Invoice Cancellation in Tally as well as E-invoice Portal (Time: 3 min)

Resource: S5.16 E-Invoice Cancellation in Tally and E-Invoice Portal.pdf

88 - S5.17 E-Invoice Generation - Tally to JSON , JSON Manual Upload on E Invoice Por (Time: 4 min)

Resource: S5.17 E-Invoice Generation - Tally to JSON, JSON Manual Upload on E-Invoice Portal.pdf

89 - S5.18 E-Invoice Generation Using Official Excel kit - Excel to JSON, JSON upload (Time: 3 min)

Resource: S5.18 E-Invoice Generation Using Official Excel Kit - Excel to JSON, JSON Upload on E-Invoice Portal.pdf

90 - S5.19 GST Composition scheme introduction, Slabs, Eligibility (Time: 9 min)

Resource: S5.19 GST Composition Scheme Introduction, Slabs, and Eligibility.pdf

91 - S5.20 GST CMP-08 Filing - Composition GST Return Filing (Time: 7 min)

Resource: S5.20 GST CMP-08 Filing - Composition GST Return Filing.pdf

### Section 06 - S6. Inventory Management (Index: 6)

92 - S6.1 Inventory Management - Introduction, Importance, Advantages (Time: 4 min)

Resource: S6.1 Inventory Management - Introduction, Importance, and Advantages.pdf

93 - S6.2 Creation of Unit of Measurement (Time: 3 min)

Resource: S6.2 Creation of Unit of Measurement.pdf

94 - S6.3 Stock Group - Creation and Alteration (Time: 3 min)

Resource: S6.3 Stock Group - Creation and Alteration.pdf

95 - S6.4 Stock Category - Creation and Alteration (Time: 2 min)

Resource: S6.4 Stock Category - Creation and Alteration.pdf

96 - S6.5 Stock Items - Creation and Alteration (Time: 4 min)

Resource: S6.5 Stock Items - Creation and Alteration.pdf

97 - S6.6 Activation of Batches for Stock Item (Time: 3 min)

Resource: S6.6 Activation of Batches for Stock Item.pdf

98 - S6.7 allocation of batch details in purchase invoice (Time: 7 min)

Resource: S6.7 Allocation of Batch Details in Purchase Invoice.pdf

99 - S6.8 selling of stock items from batch and identifying of expired batch in sales (Time: 7 min)

Resource: S6.8 Selling Stock Items from Batches and Managing Expired Batches.pdf

100 - S6.9 Returning of Expired Batch Stock Item (Time: 4 min)

Resource: S6.9 Returning Expired Batch Stock Items.pdf

101 - S6.10 Activating Price Levels (Time: 2 min)

Resource: S6.10 Activating Price Levels.pdf

102 - S6.11 defining price levels, creating price list, usage of price list in sale vo (Time: 7 min)

Resource: S6.11 Defining Price Levels, Creating Price List, and Usage in Sales Voucher.pdf

103 - S6.12 Revise Price List (Time: 2 min)

Resource: S6.12 Revise Price List.pdf

104 - S6.13 Different Types of Inventory Valuations (Time: 3 min)

Resource: S6.13 Different Types of Inventory Valuations.pdf

105 - S6.14 Activation of Purchase Order and Sales Order (Time: 3 min)

Resource: S6.14 Activation of Purchase Order and Sales Order.pdf

106 - S6.15 Activation of Delivery & Receipt Notes (Time: 5 min)

Resource: S6.15 Activation of Delivery & Receipt Notes.pdf

107 - S6.16 Activation of Debit & Credit Note (Time: 2 min)

Resource: S6.16 Activation of Debit & Credit Note.pdf

108 - S6.17 purchases management - purchase order, receipt note, purchase, purchase re (Time: 17 min)

Resource: S6.17 Purchases Management - Purchase Order, Receipt Note, Purchase, Purchase Returns.pdf

109 - S6.18 Sales Management - Sales Order, Delivery Note, Sales, Sales Return (Time: 9 min)

Resource: S6.18 Sales Management - Sales Order, Delivery Note, Sales, Sales Return.pdf

110 - S6.19 Creation of Godown (Time: 2 min)

Resource: S6.19 Creation of Godown.pdf

111 - S6.20 How to Create and Manage Multiple Godowns in TallyPrime (Time: 6 min)

Resource: S6.20 How to Create and Manage Multiple Godowns in TallyPrime.pdf

### Section 07 - S7. Bill-wise Accounts I Bills Receivables and Payables Management (Index: 7)

112 - S7.1 Bill-wise Accounts - An Introduction (Time: 5 min)

Resource: S7.1 Bill wise Accounts - An Introduction.pdf

113 - S7.2 Bill-wise Accounts - Purchases (Time: 12 min)

Resource: S7.2 Bills wise details for Purchases-Bills Payables.pdf

114 - S7.3 Bill-wise Accounts - Sales (Time: 6 min)

Resource: S7.3 Bill-wise Details for Sales - Bills Receivable.pdf

115 - S7.4 Bill-wise Accounts - Tracking Overdue Supplies (Time: 5 min)

Resource: S7.4 Bill-wise Accounts - Tracking Overdue Supplies.pdf

116 - S7.5 Bill-wise Accounts - Advances Management (Time: 6 min)

Resource: S7.5 Bill-wise Accounts - Advances Management.pdf

117 - S7.6 How to view and analyse bills outstanding reports in tallyprime (Time: 5 min)

Resource: S7.6 How to View and Analyse Bills Outstanding Reports in TallyPrime.pdf

### Section 08 - S8. TallyPrime with Banking (Index: 8)

118 - S8.1 Cheque book configuration in tallyprime (Time: 11 min)

Resource: S8.1 Cheque Book Configuration in TallyPrime.pdf

119 - S8.2 Cheque Printing in TallyPrime (Time: 5 min)

Resource: S8.2 Cheque Printing in TallyPrime.pdf

120 - S8.3 Enabling All Banking Transaction Types (Time: 3 min)

Resource: S8.3 Enabling All-Banking Transaction Types.pdf

121 - S8.4 An introduction to post dated cheques management (Time: 6 min)

Resource: S8.4 An Introduction to Post-Dated Cheques Management.pdf

122 - S8.5 Post dated cheques management in tallyprime (Time: 16 min)

Resource: S8.5 Post-Dated Cheques Management in TallyPrime.pdf

123 - S8.6 Applying for TallyPrime License (Time: 2 min)

Resource: S8.6 Applying for TallyPrime License.pdf

124 - S8.7 Introduction to bank reconciliation process in tallyprime (Time: 6 min)

Resource: S8.7 Introduction to Bank Reconciliation Process in TallyPrime.pdf

125 - S8.8 Bank reconciliation in tallyprime (Time: 22 min)

Resource: S8.8 Bank Reconciliation in TallyPrime.pdf

126 - S8.9 How To Do Auto-Bank Reconciliation (Time: 5 min)

Resource: S8.9 Auto Bank Reconciliation in Tally Prime.pdf

### Section 09 - S9: Tally Updates, New Releases, Enhancements (Index: 9)

127 - S9.1 Calculator Usage in TallyPrime (Time: 4 min)

Resource: S9.1 Calculator Usage in Tally.pdf

128 - S9.2 Alternative unit of Measurement (Time: 4 min)

Resource: S9.2 Alternative Units of Measurement.pdf

129 - S9.3 Part Numbers in TallyPrime (Time: 3 min)

Resource: S9.3 Part Numbers in TallyPrime.pdf

130 - S9.4 Standard Rate Setups in Tallyprime (Time: 4 min)

Resource: S9.5 Export Reports from TallyPrime.pdf

131 - S9.5 Export Reports from Tally I Excel, PDF, JPEG (Time: 5 min)

Resource: S9.5 Export Reports from TallyPrime.pdf

132 - S9.6 Group Company - Creation, Alteration (Time: 9 min)

Resource: S9.6 Group Company Creation in TallyPrime.pdf

133 - S9.7 Release 5.0 How to Create Ledgers using GSTIN, Import GSTIN (Time: 4 min)

Resource: S9.7 Release 5.0 - Creating Ledgers Using GSTIN.pdf

134 - S9.8 Release 5.0 How Check Party's GST Filing Status (Time: 2 min)

Resource: S9.8 Release 5.0 - Check Party's GST Filing Status.pdf

135 - S9.9 Release 5.0 How to View ITC at Risk Balance (Time: 3 min)

Resource: S9.9 Release 5.0 - How to View ITC at Risk Balance.pdf

136 - S9.10 Release 5.0 How to Enable Strip View (Time: 3 min)

Resource: S9.10 Release 5.0 - How to Enable Strip View.pdf

137 - S9.11 Release 5.0 How Print and Export Multi Vouchers (Time: 6 min)

Resource: S9.11 Release 5.0 - How to Print and Export Multi-Vouchers.pdf

138 - S9.12 Release 5.0 Dashboards - Report Analysis (Time: 6 min)

Resource: S9.12 Release 5.0 - Dashboards-Report Analysis.pdf

139 - S9.13 Release 5.0 How to Download GST Returns Data (Time: 5 min)

Resource: S9.13 Release 5.0 - How to Download GST Returns Data.pdf

140 - S9.14 Release 5.0 GSTR-1 Filing within Tally (Time: 3 min)

Resource: S9.14 Release 5.0 - GSTR-1 Filing within Tally.pdf

141 - S9.15 Release 5.0 Download & Installation of Edit Log (Time: 5 min)

Resource: S9.15 Release 5.0 - Download & Installation of Edit Log.pdf

142 - S9.16 Release 5.0 Tracking data Alterations using Edit Log - for Ledgers, Items (Time: 12 min)

Resource: S9.16 Release 5.0 - Tracking Data Alterations using Edit Log.pdf

143 - S9.17 User Management - Admin Creation , Edit Log , Audit Features (Time: 7 min)

Resource: S9.17 User Management - Admin Creation, Edit Log, Audit Features.pdf

144 - S9.18 User Management - User Creation , Edit Log , Audit Features (Time: 5 min)

Resource: S9.18 User Management - User Creation, Edit Log, Audit Features.pdf

145 - S9.19 User Management - User Roles (Time: 5 min)

Resource: S9.19 User Management - User Roles.pdf

146 - S9.20 User Management - Password Policy (Time: 5 min)

Resource: S9.20 User Management - Password Policy.pdf

147 - S9.21 Access Tally Data on Cloud - Browser Access (Time: 3 min)

Resource: S9.21 Access Tally Data on Cloud - Browser Access.pdf

### Section 10 - S10. TallyPrime Closing (Index: 10)

148 - S10.1 Golden Rules of Accounts, Treatment Statements (Time: 4 min)

Resource: S10.1 Golden Rules of Accounts - Simplified Notes.pdf

149 - S10.2 Capital and Drawings Related Adjustments (Time: 20 min)

Resource: S10.2 Capital & Drawings Related Adjustments.pdf

150 - S10.3 Party Related Adjustments - Settlement Discounts, Bad debts, Reserves (Time: 21 min)

Resource: S10.3 Party settlements, Discounts, Bad debts.pdf

151 - S10.4 Appreciation and Depreciation related adjustments (Time: 9 min)

Resource: S10.4 Appreciation & Depreciation Adjustments.pdf

152 - S10.5 Prepaid and Outstanding related adjustments (Time: 9 min)

Resource: S10.5 Prepaid and Outstanding Adjustments.pdf

153 - S10.6 TallyPrime Closing - Backup, Split Company, Setup New FY (Time: 13 min)

Resource: S10.6 Data Backups & Split Company Setups for New Financial Year.pdf

### Section 11 - S11. Case Studies & Assignments (Index: 11)

154 - S11.1 Tally Test Paper-1 Comprehensive Case Study - Recap (Time: 146 min)

Resource: S11.1 All Test papers included here.pdf

Resource: S11.1 Shortcut Keys.pdf

### Section 12 - S13: Complete Payroll Management (Index: 12)

155 - S13.1 What is Payroll I An Introduction (Time: 2 min)

Resource: S12.1 What is Payroll I An Introduction.pdf

156 - S13.2 What is Basic Salary, methods of calculating basic salary (Time: 8 min)

Resource: S12.2 What is Basic Salary, methods of calculating basic salary.pdf

157 - S13.3 What is DA, methods of Calculating DA (Time: 14 min)

Resource: S12.3 What is DA, methods of Calculating DA.pdf

158 - S13.4 What is HRA, how to Calculate HRA, Taxability and Exemption Calculation (Time: 7 min)

Resource: S12.4 What is HRA, how to Calculate HRA, Taxability and Exemption Calculation.pdf

159 - S13.5 Payheads CA, TA, LTA I Conveyance Allowance I Travel Allowance I Leave TA (Time: 6 min)

Resource: S12.5 Pay heads CA, TA, LTA I Conveyance Allowance I Travel AllowanceI I Leave TA.pdf

160 - S13.6 EPF I Employee Provident Fund I Calculation I Employee and Employer Contri (Time: 21 min)

Resource: S12.6 EPF I Employee Provident Fund I Calculation I Employee and Employer Contributions I Taxability.pdf

161 - S13.7 ESI I Employee State Insurance I Rules I Percentages I Contribution Period (Time: 11 min)

Resource: S12.7 ESI I Employee State Insurance I Rules I Percentages I Contribution Period.pdf

162 - S13.8 What is Gratuity I Calculation of Gratuity I Taxability I Ceiling Limit (Time: 7 min)

Resource: S12.8 What is Gratuity I Calculation of Gratuity I Taxability I Ceiling Limit.pdf

163 - S13.9 Bonus Act 1965 I What is Bonus, How to Calculate, Taxability (Time: 22 min)

Resource: S12.9 Bonus Act 1965 I What is Bonus, How to Calculate, Taxability.pdf

Resource: S12.9 Excel-Bonus Act 1965 I What is Bonus, How to Calculate, Taxability.xlsx

Resource: S12.9 State-wise min-wage for unskilled workers.pdf

Resource: S12.9 use this link for wage limits for skilled, semi-skille, unskilled.txt

164 - S13.10 Income Tax on Salary I TDS Computation, Cess, Surcharges, Salary Incremen (Time: 34 min)

Resource: S12.10 Income Tax on Salary I TDS Computation, Cess, Surcharges, Salary Increment Cases.pdf

Resource: S12.10 Excel -Income Tax on Salary I TDS Computation, Cess, Surcharges, Salary Increment Cases.xlsx

165 - S13.11 Professional Tax - Stat-wise I Applicability I Slabs (Time: 6 min)

Resource: S12.11 Professional Tax - Stat-wise I Applicability I Slabs.pdf

166 - S13.12 CTC vs Gross Salary vs Net Salary (Time: 5 min)

167 - S13.13 Attendance Sheer Preparation I Present, Paid Leaves, Absents, Holidays us (Time: 17 min)

Resource: S12.13 Excel-Attendance Sheer Preparation I Present, Paid Leaves, Absents, Holidays using Countif, Countif, Sum Formulas with Data Validation-With Formulas.xlsx

Resource: S12.13 Excel-Attendance Sheer Preparation I Present, Paid Leaves, Absents, Holidays using Countif, Countif, Sum Formulas with Data Validation-Without Formulas.xlsx

168 - S13.14 Complete Payroll Processing I Basic, DA, HRA, CA, TA, LTA, Bonus, PF, ESI (Time: 73 min)

Resource: S12.14 Complete Payroll Calculation-Gross Salary, Deduction, Income Tax, Sur-charge, Net Salary Calculation -with Formulas.xlsx

Resource: S12.14 Complete Payroll Calculation-Gross Salary, Deduction, Income Tax, Sur-charge, Net Salary Calculation -without Formulas.xlsx

169 - S13.15 PaySlip Generation from Paysheet in MS Excel (Time: 22 min)

Resource: S12.15 PaySlip Generation from Paysheet - with Formulas.xlsx

Resource: S12.15 PaySlip Generation from Paysheet in MS Excel without Formulas.xlsx

170 - S13.16 TDS Deposit on Income Tax Portal (Time: 15 min)

Resource: S12.16 TDS Deposit on Income Tax Portal.pdf

171 - S13.17 Employer Contributions PF ESI (Time: 15 min)

Resource: S12.17 Employer Contributions - with formulas.xlsx

Resource: S12.17 Employer Contributions - without formulas.xlsx

172 - S13.18 EPF,ESI Establishment Registration (Time: 30 min)

Resource: S12.18 USSP- Common Registration- User Manual V1.0.pdf

173 - S13.19 Add - Exit of Employee Records on EPFO website (Time: 10 min)

174 - S13.20 EPF Returns Preparation, Filing (Time: 25 min)

Resource: S12.20 Circular PF on Higher than ceiling wage limit - Joint Request - Copy.pdf

Resource: S12.20 CSV PF-Monthly.csv

Resource: S12.20 Final ECR to upload.txt

Resource: S12.20 PF Returns Preparation.xls

175 - S13.21 EPF Nil Return Filing (Time: 3 min)

176 - S13.22 How to Add Employee in ESI website I generate IP Number (Time: 6 min)

177 - S13.23 ESI Returns Preparation and Filing (Time: 8 min)

178 - S13.24 Tally Prime - Creation of a Company Enable Payroll (Time: 6 min)

Resource: S12.24 Tally Prime - payroll Steps.pdf

## Course ID: 1422920 - Algorithmic Trading & Time Series Analysis in Python and R

### Section 01 - Introduction (Index: 1)

01 - Introduction (Time: 3 min)

02 - Why to use Python? (Time: 3 min)

### Section 02 - Environment Setup (Index: 2)

03 - Installing Python (Time: 2 min)

04 - Installing PyCharm (Time: 4 min)

05 - Installing R and RStudio (Time: 3 min)

### Section 03 - Stock Market Basics (Index: 3)

06 - Types of analyses (Time: 5 min)

07 - Stocks and shares (Time: 8 min)

08 - Commodities (Time: 6 min)

09 - Currencies and the FOREX (Time: 9 min)

10 - Short and long positions (Time: 7 min)

### Section 04 - ### USING TECHNICAL INDICATORS ### (Index: 4)

11 - Using technical indicators (Time: 0 min)

### Section 05 - Moving Average Indicator (Index: 5)

12 - What is the simple moving average (SMA) indicator? (Time: 7 min)

13 - Downloading data from Yahoo Finance (Time: 5 min)

14 - Support and resistance levels (Time: 3 min)

15 - Simple moving averages (SMA) implementation (Time: 10 min)

16 - Exponential weighting (Time: 3 min)

17 - Exponential moving average (EMA) implementation (Time: 3 min)

### Section 06 - Moving Average Crossover Strategy (Index: 6)

18 - Moving average crossover strategy I (Time: 3 min)

19 - Moving average crossover strategy II (Time: 6 min)

20 - Moving average crossover strategy III (Time: 4 min)

21 - Moving average crossover strategy IV (Time: 9 min)

22 - Moving average crossover strategy V (Time: 5 min)

### Section 07 - Relative Strength Indicator (RSI) (Index: 7)

23 - What is the relative strength indicator (RSI)? (Time: 5 min)

24 - Calculating the RSI values (Time: 11 min)

25 - Returns and logarithmic returns (Time: 5 min)

### Section 08 - Relative Strength Indicator (RSI) Strategy (Index: 8)

26 - RSI trading strategy I (Time: 4 min)

27 - RSI trading strategy II (Time: 4 min)

28 - RSI trading strategy III (Time: 4 min)

29 - What is Sharpe ratio? (Time: 3 min)

30 - Calculating Sharpe ratio of a trading strategy (Time: 3 min)

### Section 09 - Backtrader Framework (Index: 9)

31 - What is backtrader? (Time: 4 min)

32 - Backtrader basics - handling data (Time: 4 min)

33 - Backtrader basics - using strategies (Time: 9 min)

34 - Backtrader basics - using indicators (Time: 9 min)

35 - Backtrader basics - results (Time: 6 min)

36 - Backtrader basics - broker info and commissions (Time: 3 min)

### Section 10 - Momentum & SMA Combined Trading Strategy (Index: 10)

37 - What strategy will we implement? (Time: 5 min)

38 - Average true range (ATR) indicator and position sizing (Time: 5 min)

39 - Average true range (ATR) indicator implementation (Time: 12 min)

### Section 11 - Momentum & SMA Combined Trading Strategy Implementation (Index: 11)

40 - Momentum trading strategy implementation I (Time: 12 min)

41 - Momentum trading strategy implementation II (Time: 6 min)

42 - Momentum trading strategy implementation III (Time: 8 min)

43 - Momentum trading strategy implementation IV (Time: 6 min)

44 - Momentum trading strategy implementation V (Time: 13 min)

45 - Momentum trading strategy implementation VI (Time: 4 min)

46 - Momentum trading strategy implementation VII (Time: 11 min)

### Section 12 - ### TIME SERIES ANALYSIS ### (Index: 12)

47 - Time series analysis (Time: 0 min)

### Section 13 - Time Series Analysis Fundamentals (Index: 13)

48 - What are mean, variance and correlation? (Time: 7 min)

49 - Downloading the data from Yahoo Finance (Time: 6 min)

50 - Calculating useful statistics (Time: 7 min)

51 - Stationarity (Time: 6 min)

52 - What is serial correlation (autocorrelation)? (Time: 11 min)

53 - Correlogram (Time: 4 min)

54 - Understanding the correlogram (Time: 6 min)

### Section 14 - Random Walk Model (Index: 14)

55 - White noise introduction (Time: 9 min)

56 - White noise process example (Time: 4 min)

57 - What is random walk? (Time: 9 min)

58 - Random walk example (Time: 7 min)

59 - Modeling assets with random walk (Time: 6 min)

### Section 15 - Autoregressive Model (AR) (Index: 15)

60 - Autoregressive model introduction (Time: 8 min)

61 - How to select the best model? (AIC and BIC) (Time: 8 min)

62 - Autoregressive model example (Time: 8 min)

63 - Modeling assets with autoregressive model (Time: 10 min)

### Section 16 - Moving Average Model (MA) (Index: 16)

64 - Moving average model introduction (Time: 6 min)

65 - Moving average model example (Time: 8 min)

66 - Modeling assets with moving average model (Time: 8 min)

### Section 17 - Autoregressive Moving Average Model (ARMA) (Index: 17)

67 - Autoregressive moving average model introduction (Time: 4 min)

68 - What is the Ljung-Box test? (Time: 5 min)

69 - Autoregressive moving average model example (Time: 6 min)

70 - Autoregressive moving average model example II (Time: 10 min)

71 - Modeling assets with ARMA model (Time: 9 min)

### Section 18 - Autoregressive Integrated Moving Average Model (ARIMA) (Index: 18)

72 - ARIMA model introduction (Time: 5 min)

73 - ARIMA model example (Time: 4 min)

74 - Modeling assets with ARIMA model (Time: 5 min)

### Section 19 - Autoregressive Conditional Heteroskedastic Model (ARCH) (Index: 19)

75 - Heteroskedasticity in finance (Time: 6 min)

76 - ARCH model introduction (Time: 8 min)

### Section 20 - Generalized Autoregressive Heteroskedastic Model (GARCH) (Index: 20)

77 - GARCH model introduction (Time: 2 min)

78 - GARCH model example (Time: 7 min)

79 - Modeling assets with GARCH model (Time: 5 min)

### Section 21 - FOREX Trading Strategy Implementation (Index: 21)

80 - FOREX trading strategy implementation I (Time: 2 min)

81 - FOREX trading strategy implementation II (Time: 5 min)

82 - FOREX trading strategy implementation III (Time: 6 min)

83 - FOREX trading strategy implementation IV (Time: 6 min)

84 - FOREX trading strategy implementation V (Time: 4 min)

85 - FOREX trading strategy implementation VI (Time: 3 min)

### Section 22 - Stock Market Trading Strategy Implementation (Index: 22)

86 - Stock market trading strategy implementation I (Time: 1 min)

87 - Stock market trading strategy implementation II (Time: 3 min)

### Section 23 - ### MARKET NEUTRAL TRADING STRATEGIES ### (Index: 23)

88 - Two types of risk and CAPM (Time: 5 min)

89 - Hedging the market risk (Time: 5 min)

### Section 24 - Mean Reversion (Index: 24)

90 - Ornstein-Uhlenbeck stochastic processes (Time: 5 min)

91 - Simulating Ornstein-Uhlenbeck processes (Time: 6 min)

92 - What is cointegration? (Time: 6 min)

93 - Testing cointegration (Time: 13 min)

### Section 25 - Bollinger Bands (Index: 25)

94 - Bollinger bands introduction (Time: 6 min)

95 - Bollinger bands visualization (Time: 8 min)

### Section 26 - Bollinger Bands Trading Strategy Implementation (Index: 26)

96 - Bollinger bands trading strategy implementation I (Time: 4 min)

97 - Bollinger bands trading strategy implementation II (Time: 9 min)

98 - Bollinger bands trading strategy implementation III (Time: 3 min)

### Section 27 - Cross-Sectional Mean Reversion (Index: 27)

99 - What is the cross-sectional mean reversion strategy? (Time: 6 min)

### Section 28 - Cross-Sectional Mean Reversion Trading Strategy Implementation (Index: 28)

100 - Cross-sectional mean reversion implementation I (Time: 8 min)

101 - Cross-sectional mean reversion implementation II (Time: 5 min)

### Section 29 - ### MACHINE LEARNING TRADING ALGORITHMS ### (Index: 29)

102 - Machine learning approaches (Time: 5 min)

### Section 30 - Logistic Regression (Index: 30)

103 - What is linear regression? (Time: 8 min)

104 - Optimization techniques (Time: 7 min)

105 - Logistic regression introduction (Time: 12 min)

106 - Maximum likelihood optimization (Time: 5 min)

### Section 31 - Logistic Regression Trading Strategy Implementation (Index: 31)

107 - Logistic regression strategy implementation I (Time: 11 min)

108 - Logistic regression strategy implementation II (Time: 7 min)

### Section 32 - Support Vector Machines (SVMs) (Index: 32)

109 - What are Support Vector Machines (SVMs)? (Time: 5 min)

110 - Linearly separable problems (Time: 14 min)

111 - Non-linearly separable problems (Time: 7 min)

112 - Kernel functions (Time: 10 min)

### Section 33 - Support Vector Classifier Trading Strategy Implementation (Index: 33)

113 - Support vector machines strategy implementation I (Time: 8 min)

114 - Support vector machines strategy implementation II (Time: 5 min)

### Section 34 - Machine Learning Algorithms and Indicators (Index: 34)

115 - SVM with SMA and RSI trading strategy I (Time: 5 min)

116 - SVM with SMA and RSI trading strategy II (Time: 6 min)

117 - SVM with SMA and RSI trading strategy III (Time: 2 min)

### Section 35 - ### PYTHON PROGRAMMING CRASH COURSE ### (Index: 35)

118 - Python crash course introduction (Time: 2 min)

### Section 36 - Appendix #1 - Python Basics (Index: 36)

119 - First steps in Python (Time: 6 min)

120 - What are the basic data types? (Time: 5 min)

121 - Booleans (Time: 2 min)

122 - Strings (Time: 8 min)

123 - String slicing (Time: 7 min)

124 - Type casting (Time: 4 min)

125 - Operators (Time: 5 min)

126 - Conditional statements (Time: 5 min)

127 - How to use multiple conditions? (Time: 8 min)

128 - Logical operators (Time: 4 min)

129 - Loops - for loop (Time: 6 min)

130 - Loops - while loop (Time: 4 min)

131 - Exercise: calculating the average (Time: 0 min)

132 - Solution: calculating the average (Time: 0 min)

133 - What are nested loops? (Time: 3 min)

134 - Enumerate (Time: 4 min)

135 - Break and continue (Time: 6 min)

136 - Calculating Fibonacci-numbers (Time: 2 min)

137 - Exercise: Fibonacci-numbers (Time: 0 min)

138 - Solution: Fibonacci-numbers (Time: 0 min)

### Section 37 - Appendix #2 - Functions (Index: 37)

139 - What are functions? (Time: 4 min)

140 - Defining functions (Time: 5 min)

141 - Positional arguments and keyword arguments (Time: 10 min)

142 - Returning values (Time: 2 min)

143 - Returning multiple values (Time: 3 min)

144 - Exercise: functions (Time: 0 min)

145 - Solution: functions (Time: 0 min)

146 - Yield operator (Time: 5 min)

147 - Local and global variables (Time: 2 min)

148 - What are the most relevant built-in functions? (Time: 4 min)

## Course ID: 5436376 - Binary Trading Sure Profit by All Concepts With CWRV Part 2

### Section 01 - Introduction (Index: 1)

01 - Introduction (Time: 37 min)

### Section 02 - All others lecture Binary Trading Sure Profit by All Concepts With CWRV Part 2. (Index: 2)

02 - Buyers sellers fight on wicks and volume condition for the fight. (Time: 37 min)

03 - Formation of basement with volume, combine strategies of single candle pattern (Time: 31 min)

04 - The reason when and how sellers enter in the market analysis with volume. (Time: 39 min)

05 - Colour change rule 1 buyers then seller enter in the market analysis with volume (Time: 39 min)

06 - Pullback rules of candlestick wicks reading with volume (Time: 39 min)

07 - Sureshot 123 rules in pullback area uptrend and downtrend market (Time: 35 min)

08 - Psychological movement rules of candlestick wicks reading with volume (Time: 48 min)

09 - How to recognize normal market abnormal market, formation of candle with volume (Time: 47 min)

10 - Level trading rule of candlestick wicks reading with volume (Time: 51 min)

11 - Market structure movement and how to place a trade by combining all concepts (Time: 60 min)

## Course ID: 5524980 - Forecasting Stock Market with ARIMA Model & Time Series

### Section 01 - Introduction (Index: 1)

01 - Introduction to the Course (Time: 6 min)

02 - Table of Contents (Time: 7 min)

Resource: Forecasting Stock Prices with Python.pptx

03 - Whom This Course is Intended for? (Time: 5 min)

### Section 02 - Tools, IDE, and Datasets (Index: 2)

04 - Tools, IDE, and Datasets (Time: 10 min)

### Section 03 - Introduction to Stock Market Forecasting (Index: 3)

05 - Introduction to Stock Market Forecasting (Time: 8 min)

### Section 04 - Calculating Moving Average (Index: 4)

06 - Calculating Moving Average (Time: 5 min)

Resource: CalculatingMovingAverage.png

### Section 05 - ARIMA Model Calculation (Index: 5)

07 - ARIMA Model Calculation (Time: 9 min)

Resource: ARIMAModelCalculation.png

### Section 06 - Internal & External Factors That Can Impact Stock Market (Index: 6)

08 - Internal & External Factors That Can Impact Stock Market (Time: 6 min)

### Section 07 - Setting Up Google Colab (Index: 7)

09 - Setting Up Google Colab (Time: 4 min)

Resource: Google Colab IDE

### Section 08 - Finding & Downloading Dataset From Kaggle (Index: 8)

10 - Finding & Downloading Dataset From Kaggle (Time: 4 min)

Resource: Kaggle

### Section 09 - Project: Forecasting Stock Market Trend with ARIMA Model (Index: 9)

11 - Uploading Dataset to Google Colab (Time: 4 min)

Resource: StockMarketDataset.zip

12 - Quick Overview of Stock Market Datset (Time: 6 min)

Resource: QuickOverviewoftheDataset.py

13 - Cleaning Dataset by Removing Missing & Duplicate Values (Time: 6 min)

Resource: CleaningDataset.py

14 - Analysing & Visualising Average Highest & Lowest Stock Price Per Year (Time: 15 min)

Resource: Analyzing&VisualizingAverageHighest&LowestPriceData.py

15 - Analysing & Visualising Average Volume (Time: 7 min)

Resource: Analyzing&VisualizingAverageVolume.py

16 - Finding Correlation Between Volume & Price Change (Time: 9 min)

Resource: FindingCorrelationBetweenVolume&PriceChange.py

17 - Calculating 100 Days Moving Average (Time: 8 min)

Resource: movingaverage.py

18 - Analysing & Visualising Volatility (Time: 9 min)

Resource: volatilityanalysis.py

19 - Auto Correlation Function & Partial Auto Correlation Function (Time: 10 min)

Resource: acf&pacf.py

20 - Forecasting with ARIMA & Performing Residual Analysis (Time: 16 min)

Resource: arimaforecasting&residualanalysis.py

### Section 10 - Forecasting Model Evaluation (Index: 10)

21 - Calculating Mean Absolute Error, Mean Squared Error & Root Mean Squared Error (Time: 6 min)

Resource: CalculatingMAE,MSE,RMSE.py

### Section 11 - Conclusion & Summary (Index: 11)

22 - Conclusion & Summary (Time: 6 min)

## Course ID: 5720876 - Machine Learning In Algorithmic Trading

### Section 01 - Introduction (Index: 1)

01 - Introduction (Time: 3 min)

02 - Course Content (Time: 2 min)

### Section 02 - Machine Learning Introduction (Index: 2)

03 - What Is Machine Learning (Time: 3 min)

04 - Understanding The Basics (Time: 4 min)

05 - Types Of Machine Learning Models (Time: 6 min)

06 - Building Blocks And The Machine Learning Process (Time: 8 min)

07 - About Applications Using Machine Learning (Time: 7 min)

### Section 03 - Supervised Learning (Index: 3)

08 - Supervised Learning (Time: 1 min)

09 - Supervised Learning Key Concepts (Time: 2 min)

10 - Supervised Learning: Regression By Example (Time: 7 min)

11 - Supervised Learning: Classification (Time: 5 min)

12 - Supervised Learning: Training Process (Time: 6 min)

### Section 04 - Unsupervised Learning (Index: 4)

13 - Unsupervised Learning (Time: 3 min)

14 - Unsupervised Learning: Key Concepts (Time: 5 min)

15 - Unsupervised Learning: Process Pipeline (Time: 4 min)

16 - Unsupervised Learning: Challenges And Best Practices Discussion (Time: 5 min)

17 - Unsupervised Learning: Importance And Closing Notes (Time: 2 min)

### Section 05 - Data Splitting Methods | Overfitting And Underfitting (Index: 5)

18 - Data Splitting For Machine Learning (Time: 4 min)

19 - Data Splitting Techniques (Time: 15 min)

20 - Overfitting Underfitting And Generalization (Time: 11 min)

21 - Splitting Python Examples (Time: 13 min)

Resource: 03\_data\_splitting.ipynb

### Section 06 - Classification Algorithms (Index: 6)

22 - Classifiers Introduction (Time: 3 min)

23 - K Nearest Neighbors (Time: 8 min)

24 - K Nearest Neighbors Python Example (Time: 9 min)

Resource: 03\_KNN.ipynb

25 - K means (Time: 7 min)

26 - K means Python Example (Time: 7 min)

Resource: 03\_KMeans.ipynb

27 - Decision Trees (Time: 8 min)

28 - Decision Trees Python Example (Time: 6 min)

Resource: 03\_Decision\_Trees.ipynb

29 - Random Forests (Time: 12 min)

30 - Random Forests Python Example (Time: 4 min)

Resource: 03\_Random\_Forests.ipynb

31 - Logistic Regression (Time: 10 min)

32 - Logistic Regression Explained Example (Time: 2 min)

33 - Logistic Regression Python Example (Time: 2 min)

Resource: LogRegression.ipynb

34 - Naive Bayes Classifier (Time: 9 min)

35 - Naive Bayes Gaussian Classifier (Time: 6 min)

36 - Naive Bayes Python Example (Time: 3 min)

Resource: NaiveBayes.ipynb

37 - Support Vector Machines (Time: 6 min)

38 - Support Vector Machines: Kernels (Time: 9 min)

39 - Support Vector Machines: Python Example (Time: 6 min)

Resource: SVM.ipynb

### Section 07 - Evaluating Classifiers (Index: 7)

40 - Accuracy, Confusion Matrix And Classification Report (Time: 13 min)

41 - ROC-AUC And PR-AUC (Time: 11 min)

42 - Confusion Matrix Python Example (Time: 4 min)

Resource: Confusion\_Matrix\_ROC\_AUROC.ipynb

43 - ROC-AUC Python Example (Time: 6 min)

Resource: Confusion\_Matrix\_ROC\_AUROC.ipynb

44 - PR-AUC Python Example (Time: 2 min)

Resource: Confusion\_Matrix\_ROC\_AUROC.ipynb

### Section 08 - Data Analysis And Labelling Financial Data (Index: 8)

45 - About Data Sources And Labeling (Time: 4 min)

46 - Downloading Historical Data (Time: 10 min)

Resource: 04\_2\_Data\_Acquisition.ipynb

Resource: 01\_Loading\_Cleaning\_Data.ipynb

Resource: PlottingDataCandles.ipynb

Resource: PlottingScatters.ipynb

47 - Visualizing And Inspecting Indicators (Time: 16 min)

Resource: BTCUSD\_Candlestick\_1\_D\_ASK\_08.05.2019-16.10.2021.csv

48 - Visualization Examples (Time: 12 min)

49 - Data Labeling (Time: 3 min)

50 - Fixed Time Horizon Method (Time: 6 min)

51 - Fixed Time Horizon: Python Example (Time: 5 min)

Resource: Fixed\_Horizon.ipynb

Resource: EURUSD\_Daily.csv

52 - Improved Time Horizon Method (Time: 4 min)

53 - Improved Time Horizon Python Example (Time: 7 min)

Resource: 05\_Fixed\_Horizon.ipynb

54 - Triple Barrier Method (Time: 2 min)

55 - Triple Barrier Python Example (Time: 12 min)

Resource: EURUSD\_Daily.csv

Resource: 06\_DynamicDailyVolatility.ipynb

56 - Strategy Specific Dynamic Labeling (Time: 3 min)

57 - Strategy Specific Dynamic Labeling Python Example (Time: 11 min)

Resource: 07\_Asymetric\_DynamicDailyVolatility.ipynb

Resource: EURUSD\_Daily.csv

58 - Strategy Thresholds Optimization (Time: 2 min)

59 - Strategy Example For Optimization (Time: 3 min)

60 - Thresholds Optimization Python Example (Time: 12 min)

Resource: 01\_Strategy\_Optimization.ipynb

Resource: EURUSD\_Candlestick\_5\_M\_ASK\_30.09.2019-30.09.2022.csv

### Section 09 - Feature Engineering (Index: 9)

61 - Processing Technical Indicators (Time: 10 min)

62 - Processing Technical Indicators Python Examples (Time: 14 min)

Resource: 01\_Input\_Features\_Examples.ipynb

Resource: EURUSD\_Daily.csv

63 - Features Enhancement And Dimensionality Reduction (Time: 10 min)

64 - Features Enhancement And Dimensionality Reduction Python Examples (Time: 13 min)

Resource: 02\_Input\_Features\_Correlations\_PCA.ipynb

65 - Standardization Normalization And One Hot Encoding (Time: 15 min)

66 - Standardization Normalization And One Hot Encoding Python Examples (Time: 6 min)

Resource: 02\_Input\_Features\_Correlations\_PCA.ipynb

Resource: EURUSD\_Daily.csv

### Section 10 - Training Machine Learning Models (Index: 10)

67 - Fitting Classifiers (Time: 24 min)

Resource: 02\_Evaluating\_Classifiers.ipynb

Resource: EURUSD\_Daily.csv

68 - Fitting Classifiers Without Data Leakage (Time: 22 min)

Resource: 02\_Evaluating\_Classifiers\_Data\_Leakage\_Off.ipynb

69 - XGBoost (Time: 4 min)

70 - Neural Networks Classifier (Time: 5 min)

71 - XGBoost And Neural Networks Python Example (Time: 12 min)

Resource: 05\_XGBooost\_NN\_Tested\_Indicators.ipynb

Resource: EURUSD\_Candlestick\_5\_M\_ASK\_30.09.2019-30.09.2022.csv

### Section 11 - Financial Backtesting Of Machine Learning Strategies In Python (Index: 11)

72 - Backtesting Machine Learning Indicators In Python (Time: 11 min)

Resource: 02\_XGBooost\_Backtesting.ipynb

73 - Quick Recap And Final Thoughts (Time: 5 min)

## Course ID: 5412670 - Candlestick Wicks Reading With Volume CWRV (part 1)

### Section 01 - Introduction (Index: 1)

01 - Introduction (Time: 37 min)

### Section 02 - All Others Lectures Of CWRV Course (Index: 2)

02 - Candlestick Head Analysis by Wicks With Volume (Time: 74 min)

03 - Candlesticks wicks length analysis with volume (Time: 52 min)

04 - Length analysis of a candlestick (Time: 35 min)

05 - Marubozu candlesticks rules by cwrv (Time: 43 min)

06 - Marubozu Candlestick colour change rules (Time: 42 min)

07 - 123 official rules of CWRV (Time: 39 min)

08 - Master wicks strategy of CWRV (Time: 38 min)

09 - Buyers area sellers area rules by candles wicks reading with volume cwrv (Time: 44 min)

10 - Single candle setup or momentum rule of cwrv (Time: 39 min)

11 - last class of CWRV how to take maximum confirmation for placing a sureshot trade (Time: 67 min)

## Course ID: 5600412 - Binary Options Delta River Volume Analysis For Sure Success

### Section 01 - Introduction of delta river course and little explanation of volume bars (Index: 1)

01 - Introduction (Time: 34 min)

### Section 02 - All others important classes of Delta River course (Index: 2)

02 - Delta River class 2 all Delta River volume bars deep explanation (Time: 40 min)

03 - Delta River class 3 point of control and how to apply point of control (Time: 38 min)

04 - Delta river class 4 point of control and changing effort concept (Time: 45 min)

05 - Delta river class 5 psychological patterns rule with power of control concept (Time: 39 min)

06 - Delta River class 6 single candlestick pattern strategy by delta river volume (Time: 36 min)

07 - Delta river class 7 Double candlestick pattern strategy by delta river volume (Time: 38 min)

08 - Delta River class 8 short range analysis by delta river volume confirmation (Time: 38 min)

09 - Delta River class 9 process to enter in the market and place a sure shot trade (Time: 34 min)

## Course ID: 571876 - 10X SUPERHUMAN Learning: Speed Reading & Memory Booster

### Section 01 - Unleash Your Genius Today! (Index: 1)

01 - WELCOME! IT'S HARD TO BELIEVE JUST HOW FAST SKYROCKETING YOUR LEARNING SPEED IS! (Time: 1 min)

02 - Course Structure: How to 10X Your Learning in Just 5 Weeks! (Time: 7 min)

03 - 7 Myths That HIJACK Your Learning And How To BREAK Them (Time: 8 min)

04 - DOWNLOAD CENTER - Here Are Your Course Resources to Download (Time: 0 min)

Resource: 30 Day Challenge Template.pdf

Resource: Visual Linking Method.pdf

Resource: 40-Min Framework.pdf

Resource: How to expand your vision span and control your eyes.pdf

Resource: How to develop a wide and deep vision span.pdf

Resource: Action Planner - 10X Effective Learning Masterclass.pdf

### Section 02 - Speed Reading FUNDAMENTALS (Index: 2)

05 - How Actually Reading Works? (Time: 2 min)

06 - The Speed Reading Mindset (Time: 5 min)

07 - The 1-Min Exercise: Discover How Fast You Can Read & Comprehend (Time: 3 min)

08 - What It Takes to Skyrocket Your Reading Speed? (Time: 11 min)

09 - Speed Reading Fundamentals: KEY POINTS (Time: 2 min)

### Section 03 - Speed Reading 101: How to Read 500 Words per Minute (Index: 3)

10 - The Easiest Speed Reading Technique to Use (Time: 3 min)

11 - How to Read in Group of Words (Time: 4 min)

12 - Normal - Double - Triple Drill (Time: 2 min)

13 - Skimming & Scanning (Time: 6 min)

14 - Speed Reading 101: KEY POINTS (Time: 4 min)

### Section 04 - Speed Reading 102: How to Read 800 Words per Minute (Index: 4)

15 - How to Reduce the Number of Fixations (Time: 2 min)

16 - How To Expand Your Vision Span And Control Your Eyes - 900 DRILLS (Time: 7 min)

Resource: 1) How to expand your vision span and control your eyes.pdf

17 - How To Develop A Wide And Deep Vision Span - 900 DRILLS (Time: 3 min)

Resource: 2) How to develop a wide and deep vision span.pdf

18 - How to Reduce Subvocalization (Time: 3 min)

19 - The Best Workout to Reduce Subvocalization (Time: 2 min)

20 - Speed Reading: KEY POINTS (Time: 3 min)

### Section 05 - Active Reading: How to Fully Engage With the Book You're Reading (Index: 5)

21 - How Active Reading Can Help Increase Your Comprehension (Time: 3 min)

22 - Reading Actively: The Layered Approach (Time: 5 min)

23 - Examples of Active Reading in Practice (Time: 2 min)

24 - How to Use Visualization When Reading (Time: 4 min)

25 - How to Practice Vizualization (Time: 2 min)

26 - The Complete Blueprint on How to Read Any Book (Time: 12 min)

27 - Active Reading: KEY POINTS (Time: 4 min)

### Section 06 - Solid Memory: How to Remember Information Much Faster and More Reliably (Index: 6)

28 - Most Popular Myths Related to Memory (Time: 3 min)

29 - How to Use Metaphors in Your Studies (Time: 3 min)

30 - Implementation Stages for Metaphors (Time: 3 min)

31 - Better Metaphors 1/2 (Time: 4 min)

32 - Better Metaphors 2/2 (Time: 7 min)

33 - How to Encode New Words and Terminology (Time: 4 min)

34 - How to Build Powerful Mental Databases (Time: 9 min)

35 - Solid Memory: KEY POINTS (Time: 3 min)

### Section 07 - Fast Note-Taking: Discover How to Stay Focused During Lectures or Meetings (Index: 7)

36 - What is Note-Taking? (Time: 3 min)

37 - Benefits of Active Listening (Time: 3 min)

38 - The Two BIGGEST Mistakes in Note-Taking (Time: 2 min)

39 - Preparation (Time: 2 min)

40 - Set a Purpose and Adjust Your Note-Taking to Align With It (Time: 3 min)

41 - Don’t Write Down the Details (Time: 6 min)

42 - The Cornell Method (Time: 3 min)

43 - Introduction to Deconstructing (Time: 2 min)

44 - Other Opportunities to Use and Practice Note-Taking Skills (Time: 4 min)

45 - Fast Note-Taking: KEY POINTS (Time: 3 min)

### Section 08 - Laser-Like Focus: How to Stay Focused UP to 40 Min Without Getting Distracted (Index: 8)

46 - Why Environment Matters More Than You Think (Time: 7 min)

47 - 2. Note-Taking for Fast Focus (Time: 8 min)

48 - Obstacles vs. Deliberate Action (Time: 6 min)

49 - Distraction Log (Time: 4 min)

50 - Deep Work (Time: 11 min)

51 - Discovering Your Peak Focus Times (Time: 3 min)

52 - Introduction to Sticky Habits (Time: 7 min)

53 - 30-Day Challenge (Time: 4 min)

### Section 09 - BONUS: How to Skyrocket Your Productivity! (Index: 9)

54 - How to Make this Course Work for You! (Time: 1 min)

55 - #1st Killer Productivity Myth - See Why Time Management Doesn't Exist! (Time: 2 min)

56 - #2nd Killer Productivity Myth - How to Overcome the Victim Mentality! (Time: 2 min)

57 - #3rd Killer Productivity Myth - The Secret to Stop Relying on Your Will Power! (Time: 2 min)

58 - The 4 Secret Pillars of Productivity - And Almost No-One is Aware! (Time: 4 min)

59 - THE POWER of Clarity - The No 1 Reason People Never Create the Results They Want (Time: 2 min)

60 - SMART Goals Made Simple - The Effective Way! (Time: 4 min)

Resource: SMART-Goal-System.pdf

61 - THE POWER of Decision-The Proven Mindset of the Most Millionaires in the World! (Time: 2 min)

62 - How to Overcome Procrastination and Accomplish More FAST! - The Easy Way! (Time: 2 min)

63 - THE POWER of Boundaries - The Top Secret to Become Effective and Powerful! (Time: 2 min)

64 - How to Protect Your TIME - Discover What No-One Has Realized! (Time: 2 min)

65 - The Key to Implement Boundaries - See How EASY It Is! (Time: 3 min)

66 - Action Step - It Takes JUST 15 Minutes and It Will Change Your Perspective! (Time: 2 min)

Resource: Your-Activity-List.pdf

### Section 10 - How to Discover Your TOP Activities - These Will Drive All Your Success! (Index: 10)

67 - Your TOP Performance Activities - These Will Give You All The Energy You Need! (Time: 2 min)

68 - The BIGGEST Mistake Entrepreneurs Make that Limits Their Success! (Time: 2 min)

69 - The Easy Method to Calculate the Income Level You Want to Reach! (Time: 4 min)

70 - Your Personal TOP Performance Activities Explained - It's More Than You Think! (Time: 3 min)

Resource: Discovering your Top Performance Activities.pdf

71 - Step 1 - Analyze your Activity List-Do This and Your Life Will Change Magically! (Time: 3 min)

72 - Step 2 - Your Enjoyment Score - It's Important to Know What Your Priorities Are! (Time: 2 min)

Resource: The Enjoyment Score.pdf

73 - Step 3 - Develop Your Top 5 Lists - Separate What You Like from What You Hate! (Time: 2 min)

74 - Step 4 - How to Analyze Your Top 5 Performance Activities ... The EASY Way! (Time: 4 min)

75 - Wrap up - How this Module Helped you Discover What You Love Doing! (Time: 2 min)

76 - How Important it is to Control and Eliminate Distractions (Time: 2 min)

### Section 11 - The Secret to Eliminating Distractions (Index: 11)

77 - The Secret to Eliminating Distractions! (Time: 4 min)

78 - How to Control your Phone Distractions! (Time: 4 min)

79 - #1st Secret Strategy to Control Phone Distractions! (Time: 2 min)

80 - # 2nd Secret Strategy to Control Phone Distractions! (Time: 2 min)

81 - #3rd Secret Strategy to Control Phone Distractions! (Time: 4 min)

82 - How to Prioritize your Calls (Time: 8 min)

83 - How to Master your Emails (Time: 2 min)

84 - #1st Secret Strategy to Email Mastery! (Time: 1 min)

85 - #2nd Secret Strategy to Email Mastery! (Time: 2 min)

86 - #3th Secret Strategy to Email Mastery! (Time: 3 min)

87 - #4th Secret Strategy to Email Mastery! (Time: 3 min)

88 - #5th Secret Strategy to Email Mastery! (Time: 2 min)

89 - How to Eliminate the Distractions when someone interrupts you (Time: 4 min)

90 - Implement these Actions and you will give 100% Attention to the love ones! (Time: 2 min)

### Section 12 - TOP SECRET: The Power of Focus - How to Double Your Productivity Overnight! (Index: 12)

91 - See Why Being Focused Makes You 10x Ultra Productive! (Time: 2 min)

92 - The No 1 Reason Why People Are Unproductive! - Everything Is Revealed! (Time: 5 min)

93 - The Power of Focus - Double Your Productivity, Get More Energy, Enjoy Life! (Time: 2 min)

94 - The Proof Revealed - Why Multitasking Kills Your Productivity and Speed! (Time: 5 min)

95 - The 50-Minutes Focus - The Single, Most Powerful Tool for Getting More Done! (Time: 5 min)

96 - Action Step - This Alone Will DOUBLE Your Productivity! (Time: 4 min)

97 - Wrap up - How this Module Helped You Getting More Things Done! (Time: 1 min)

### Section 13 - How to Develop a Powerful Productivity Routine (Index: 13)

98 - What is a Successful Daily Routine (Time: 3 min)

99 - How to Set Up Your Daily Ritual (Time: 5 min)

100 - What is the concept of "Deliberate Success?" (Time: 5 min)

101 - # 1: Physical Element - create daily routines to improve your health and fitness (Time: 4 min)

102 - # 2: Nutrition Element - how to have a strong nutritional base (Time: 3 min)

103 - 5 Essential Fruits You Need To Eat (Time: 3 min)

104 - # 3: Mental State - how to allow you to relax your mind (Time: 3 min)

105 - # 4: Growth Element - how to improve your knowledge base (Time: 3 min)

106 - Your Daily Routine Ritual (Time: 2 min)

Resource: You Daily Ritual.pdf

107 - # 5: Gratitude - the Mother of all positive thoughts and attitudes (Time: 3 min)

108 - Important Tips! - three advises for a strong daily ritual (Time: 4 min)

### Section 14 - 10X Effective Learning System V1 - COURSE ARCHIVE (Index: 14)

109 - How To Make This Course Work For You! (Time: 4 min)

110 - How Reading Works (Time: 8 min)

111 - The Best Tactic for Reading Fast (Time: 7 min)

112 - 15 Minutes to Double Your Reading Speed (Time: 7 min)

Resource: 15 Minutes to Double Your Reading Speed.pdf

113 - Developing a Sense of Urgency When Reading (Time: 3 min)

Resource: Developing a Sense of Urgency When Reading.pdf

114 - How To Set Powerful Learning Goals (Time: 5 min)

### Section 15 - How To Develop Lightening Speed Reading (Index: 15)

115 - How To Calculate Your Reading Speed In Just 2 Minutes (Time: 3 min)

116 - The SECRET To Develop Laser-Like Focus While Reading (Time: 4 min)

117 - A Huge Insight On Reading Most Students Miss! (Time: 3 min)

118 - How To Learn Anything From Any Book In 3 Steps (Time: 7 min)

119 - 10 Myths Of Learning And Speed Reading (Time: 9 min)

### Section 16 - Planting The Seeds For Total Reading Domination (Index: 16)

120 - How to Eliminate The Bad Habits Of Reading 1/2 (Time: 9 min)

121 - How to Eliminate The Bad Habits Of Reading 2/2 (Time: 9 min)

122 - The No 1 Solution To Read Faster And Remember More (Time: 3 min)

123 - How To Increase Your Reading Speed By 50% Immediately (Time: 5 min)

124 - 5 Hacks To Eliminate The Bad Habits Of Regression And Progression (Time: 2 min)

125 - The Normal - Double - Triple Drill (Time: 4 min)

### Section 17 - How Your Reading Makes You Smarter (Index: 17)

126 - What Is The Optimal Learning State? (Time: 5 min)

127 - Find Out The RIGHT Mindset While Reading (Time: 6 min)

128 - The Complete Blueprint On How To Read Any Book 1/2 (Time: 4 min)

129 - The Complete Blueprint On How To Read Any Book 2/2 (Time: 3 min)

130 - How To Read ANY Technical Material (Time: 4 min)

131 - My BEST Tips On Studying For Exams (Time: 3 min)

132 - 5 Steps On Finding The Main Ideas In Any Book (Time: 3 min)

133 - Bonus: How To Read FASTER On A Computer Screen 1/2 (Time: 6 min)

134 - Bonus: How To Read FASTER On A Computer Screen 2/2 (Time: 5 min)

### Section 18 - Learn How To Take Notes Effectively (Index: 18)

135 - 5 Most Effective Systems Of Note Taking (Time: 4 min)

136 - How To Learn Mind Mapping - The Effective Way (Time: 3 min)

137 - Critical Concepts To Keep In Mind while Drawing Mindmaps (Time: 3 min)

### Section 19 - Remember All The Information You Need, When You Need It The Most (Index: 19)

138 - 5 Popular Myths Related To Memory (Time: 3 min)

139 - How Your Brain Works And How It Stores Information (Time: 4 min)

140 - An Overview Of What We Have Learned So Far (Time: 2 min)

141 - What Is The RIGHT Mindset While Memorizing (Time: 2 min)

### Section 20 - Advanced Memory Techniques To Boost Your Speed Learning (Index: 20)

142 - The ONLY 2 Rules You Need To Follow When Memorizing ANY Type Of Information (Time: 3 min)

143 - 3 Memorization Techniques That Work EVERYTIME (Time: 2 min)

144 - #1 Memorization Technique - Use Your Imagination Effectively (Time: 2 min)

145 - #2 Memorization Technique - Used By All Memory Champions (Time: 4 min)

146 - How To Turn Abstract Information Into A Picture (Time: 5 min)

### Section 21 - How To Develop Laser-Like FOCUS! (Index: 21)

147 - Why Attention Is Your Only Competitive Advantage In A Distracted World? (Time: 3 min)

148 - Learn The Focus Block Method (Time: 4 min)

149 - How To Completely Eliminate Multitasking (Time: 5 min)

150 - How To Deal With The Daily Temptations We Are Surrounded (Time: 5 min)

### Section 22 - How to Break Bad Habits Today! (Index: 22)

151 - How to make this course work for you (Time: 3 min)

152 - Change One Habit at a Time (Time: 3 min)

### Section 23 - Secrets Revealed - You Need to Build a Strong Foundation (Index: 23)

153 - The 30 Day Challenge - It Takes JUST One Month to Change Your Life (Time: 4 min)

154 - Case Study - See With Your Own Eyes What Habit I Was Able To Change (Time: 3 min)

155 - How To Set Your Starting Date - Or HOW To Stay Committed And Motivated (Time: 1 min)

156 - TOP Secret Mindset - Why Very Few People Are Doing This? (Time: 5 min)

157 - How To Make Visible Improvements - Easy Steps, Strong Results (Time: 3 min)

### Section 24 - 6 Top Strategies for Accelerating Your Change (Index: 24)

158 - How To Follow New Routines That Give You The Same Reward (Time: 3 min)

159 - 5 Pieces of Information You Need To Record - Amazing Strategy (Time: 3 min)

160 - Why You Need To Experiment With New Rewards (Time: 2 min)

161 - How To Examine Your Mood After Completing A New Routine (Time: 2 min)

162 - Advanced Technique: Follow A Step-By-Step Plan That Gives You Super Results (Time: 3 min)

### Section 25 - Magic In Action: The Power of Your Circle of Friends (Index: 25)

163 - How To Keep A Daily Journal (Time: 3 min)

164 - How To Team Up With A Friend To Accelerate Your Growth! (Time: 3 min)

165 - How To Avoid Places That Trigger Bad Habits (Time: 2 min)

### Section 26 - How To Build Power Habits Faster than You Could Imagine (Index: 26)

166 - How To Live a Healthy Lifestyle (Time: 2 min)

167 - How To Don't Go Overboard - Don't Beat Yourself (Time: 2 min)

168 - How To Be Kind To Yourself When You Have Bad Days (Time: 2 min)

169 - How To Be Happy With Your Achievements (Time: 2 min)

### Section 27 - Special BONUS! (Index: 27)

170 - Lessons Learned and What to Do Next (Time: 3 min)

### Section 28 - BONUS: How Your Brain Operates! (Index: 28)

171 - How the Left Brain Operates (Time: 4 min)

172 - How the Right Brain Operates (Time: 3 min)

## Course ID: 5339746 - Market Microstructure for Traders

### Section 01 - Introduction (Index: 1)

01 - Welcome Messsage (Time: 5 min)

02 - Disclaimer (Time: 2 min)

### Section 02 - 1. Introduction to Market Microstructure (Index: 2)

03 - 1.1 What is market microstructure? (Time: 5 min)

04 - 1.2 The evolution of market microstructure theory (Time: 6 min)

05 - 1.3 Why is market microstructure important for traders? (Time: 4 min)

### Section 03 - 2.Market Participants and Their Roles (Index: 3)

06 - 2.1 Market makers (Time: 5 min)

07 - 2.2 High-frequency traders (HFTs) (Time: 5 min)

08 - 2.3 Institutional traders (Time: 5 min)

09 - 2.4 Retail traders (Time: 5 min)

10 - 2.5 Arbitrageurs (Time: 5 min)

### Section 04 - 3. Price Formation and Discovery (Index: 4)

11 - 3.1 Bid-ask spread (Time: 5 min)

12 - 3.2 Order flow and order book dynamics (Time: 6 min)

13 - 3.3 Price impact of trades (Time: 5 min)

14 - 3.4 Informational efficiency (Time: 5 min)

15 - 3.5 Adverse selection and inventory risk (Time: 4 min)

### Section 05 - 4. Market Structures and Trading Mechanisms (Index: 5)

16 - 4.1 Centralized markets: Exchanges (Time: 5 min)

17 - 4.2 Decentralized markets: Over-the-counter (OTC) (Time: 5 min)

18 - 4.3 Electronic trading platforms (Time: 4 min)

19 - 4.4 Dark pools and alternative trading systems (ATS) (Time: 5 min)

20 - 4.5 Market fragmentation and liquidity (Time: 5 min)

### Section 06 - 5. Trading Strategies and Market Microstructure (Index: 6)

21 - 5.1 Passive trading strategies (Time: 5 min)

22 - 5.2 Active trading strategies (Time: 6 min)

23 - 5.3 Algorithmic trading (Time: 6 min)

24 - 5.4 High-frequency trading (Time: 5 min)

25 - 5.5 Market making strategies (Time: 4 min)

### Section 07 - 6. Market Microstructure Inefficiencies and Exploitation (Index: 7)

26 - 6.1 Latency arbitrage (Time: 5 min)

27 - 6.2 Order anticipation (Time: 5 min)

28 - 6.3 Market manipulation (Time: 6 min)

29 - 6.4 Flash crashes and market instability (Time: 5 min)

30 - 6.5 Trading strategies to exploit market inefficiencies (Time: 4 min)

### Section 08 - 7. Market Regulations and Their Impact on Microstructure (Index: 8)

31 - 7.1 Regulation NMS (National Market System) in the United States (Time: 5 min)

32 - 7.2 MiFID II (Markets in Financial Instruments Directive) in Europe (Time: 5 min)

33 - 7.3 Circuit breakers and volatility controls (Time: 5 min)

34 - 7.4 The impact of regulations on market microstructure (Time: 5 min)

35 - 7.5 Future trends in market regulation (Time: 5 min)

### Section 09 - 8. Practical Applications and Case Studies (Index: 9)

36 - 8.1 Building a simple market making strategy (Time: 5 min)

37 - 8.2 Analyzing the impact of different order types (Time: 5 min)

38 - 8.3 Evaluating the performance of trading strategies (Time: 4 min)

39 - 8.4 Case studies on market microstructure events and their implications (Time: 4 min)

40 - 8.5 Developing a personal trading plan incorporating market microstructure (Time: 4 min)

### Section 10 - Congratulations (Index: 10)

41 - Congratulations on Completion (Time: 1 min)

## Course ID: 4299801 - Algorithmic Options Trading on Interactive Brokers' Platform

### Section 01 - Introduction to Options Trading and Valuation (Index: 1)

01 - IBAPI Courses (Time: 4 min)

02 - Why This Course? (Time: 4 min)

03 - Course Structure (Time: 7 min)

04 - What is a Financial Option (Time: 10 min)

05 - Options Payoff (Time: 8 min)

06 - Option Valuation Intuition and Careers in Quantitative Finance (Time: 12 min)

07 - Calculating Historical Volatility to Feed Black Scholes Model (Time: 9 min)

Resource: ib\_hist\_vol.py

08 - Pricing Options using Black Scholes Model (Time: 15 min)

Resource: ib\_black\_scholes.py

09 - What is Implied Volatility (Time: 7 min)

10 - Calculating Implied Volatility using Black Scholes Model (Time: 8 min)

Resource: ib\_imp\_vol.py

11 - Monte Carlo Simulation Intuition (Time: 9 min)

12 - Pricing Options using Monte Carlo Simulation (Time: 16 min)

Resource: ib\_monte\_carlo\_sim.py

### Section 02 - Handling Option Chains and Contracts (Index: 2)

13 - Important - Debugging Errors Arising from Function Signature Changes (Time: 6 min)

14 - IBAPI Function Change Catalogue (Time: 0 min)

Resource: ibapi\_changes.py

15 - Subscribing to Options Market Data (Time: 4 min)

16 - Option Chain and Option Contract - Intro (Time: 8 min)

17 - Extracting Option Chain and Option Contract Details (Time: 5 min)

Resource: ib\_opt\_cntrct\_basic.py

18 - Parsing Option Contract Details (Time: 9 min)

Resource: ib\_opt\_cntrct\_parse.py

19 - Storing Option Contract Details (Time: 11 min)

Resource: ib\_opt\_cntrct\_store.py

20 - Storing Option Contract Details in DataFrames (Time: 9 min)

Resource: ib\_opt\_cntrct\_df.py

21 - Assignment - Extract Option Contracts Expiring in Future Months (Time: 1 min)

22 - Assignment Solution (Time: 10 min)

Resource: ib\_opt\_cntrct\_assignment.py

### Section 03 - Selecting Required Option Contract from the Option Chain (Index: 3)

23 - Selecting Desired Option Contract - Intro (Time: 4 min)

24 - Current Price Streaming Using Multithreading - Recap (Time: 8 min)

Resource: ib\_mt\_ltp.py

25 - Getting ATM Option Contract from the Option Chain (Time: 15 min)

Resource: ib\_atm\_option.py

26 - Assignment - Get Desired Option Contract from the Option Chain (Time: 1 min)

Resource: ib\_otm\_option\_assignment.py

### Section 04 - Streaming Options Market Data (Index: 4)

27 - Streaming Real Time Market Data - Intro (Time: 2 min)

28 - Streaming LTP of a Specific Option Contract (Time: 6 min)

Resource: ib\_opt\_ltp\_poc.py

29 - Streaming LTP of Multiple Option Contracts - I (Time: 13 min)

30 - Streaming LTP of Multiple Option Contracts - II (Time: 10 min)

Resource: ib\_opt\_ltp.py

31 - How to Interpret Option OI and Volume (Time: 11 min)

32 - Streaming OI and Vol of a Specific Option Contract (Time: 14 min)

Resource: ib\_opt\_oi\_vol\_poc.py

33 - Streaming OI and Vol of Multiple Option Contracts - I (Time: 14 min)

34 - Streaming OI and Vol of Multiple Option Contracts - II (Time: 7 min)

Resource: ib\_opt\_oi\_vol.py

35 - Accessing Option Greeks in TWS (Time: 3 min)

36 - Getting to Know the Greeks (Time: 12 min)

37 - Streaming IV and Greeks for a Specific Option Contract (Time: 10 min)

Resource: ib\_opt\_greeks\_iv\_poc.py

38 - Streaming IV and Greeks for Multiple Option Contracts (Time: 12 min)

Resource: ib\_opt\_greeks\_iv.py

### Section 05 - Placing Option Orders (Index: 5)

39 - Placing Option Orders in TWS (Time: 8 min)

40 - Submitting Limit Order for a Standalone Option Contract (Time: 7 min)

Resource: ib\_opt\_order\_basic.py

41 - Placing Combo Orders for a Standalone Option Contract (Time: 13 min)

Resource: ib\_opt\_order\_combo.py

42 - Placing Combo Orders for a Straddle Strategy (Time: 13 min)

Resource: ib\_opt\_order\_combo\_straddle.py

43 - Placing Non Guaranteed Combo Orders (Time: 8 min)

Resource: ib\_opt\_order\_combo\_nonguaranteed.py

44 - Placing Bracket Orders for Combo Contracts (Time: 6 min)

Resource: ib\_opt\_order\_combo\_bracket.py

45 - Checking Position and Open Order for Options (Time: 5 min)

Resource: ib\_open\_orders.py

Resource: ib\_position\_refresh.py

### Section 06 - Implementing Bear Spread Strategy (Index: 6)

46 - Bear Spread Strategy - Intro (Time: 8 min)

47 - Getting Historical Data & Performing Technical Analysis (Time: 17 min)

Resource: ib\_opt\_bear\_spread1.py

48 - Getting ATM and OTM Option Contracts for Screened Stocks (Time: 14 min)

Resource: ib\_opt\_bear\_spread2.py

49 - Streaming Market Data for Selected Option Contracts (Time: 13 min)

Resource: ib\_opt\_bear\_spread3.py

50 - Ranking Selected Options Based on Payoff to Risk Ratio (Time: 6 min)

Resource: ib\_opt\_bear\_spread4.py

51 - Placing Combo Orders for Selected Option Contracts (Time: 6 min)

Resource: ib\_opt\_bear\_spread5.py

52 - Key Takeaways and an Assignment (Time: 5 min)

### Section 07 - Extracting Historical Data of Derivative Contracts (Index: 7)

53 - Derivative Historical Data Intro (Time: 3 min)

54 - Extracting Historical Data of Futures Contracts (Time: 14 min)

Resource: ib\_hist\_futures.py

55 - Extracting Historical Data of Live Options Contracts (Time: 16 min)

Resource: ib\_hist\_live\_options.py

56 - Extracting Historical Data of Expired Options (Intuition) (Time: 7 min)

57 - Extracting Historical Data of Expired Options - I (Time: 14 min)

58 - Extracting Historical Data of Expired Options - II (Time: 18 min)

Resource: ib\_hist\_expired\_options.py

## Course ID: 4581660 - Statistical Arbitrage Bot Build in Crypto with Python (A-Z)

### Section 01 - Introduction (Index: 1)

01 - Setting Expectations (Time: 6 min)

02 - The Elephant in The Room: Why Share This Information? (Time: 9 min)

03 - Why You Will Succeed Where Most Do Not (Time: 5 min)

04 - Course Structure and What to Expect (Time: 7 min)

### Section 02 - Resources (Index: 2)

05 - Download Code, Files and Resource Here (Time: 0 min)

Resource: Resource Files.zip

06 - UPDATED CODE II - Latest Code for ByBit (Time: 0 min)

### Section 03 - Intuition - Fundamental Principles In Trading (Index: 3)

07 - The Biggest Illusion in Trading (Time: 13 min)

08 - Probability - That Math Does Not Lie (Time: 10 min)

09 - Edge #1 - Strategy and Signal (Time: 5 min)

10 - Edge #2 - Optimal Position Sizing (Time: 15 min)

11 - Edge #3 - Becoming the Casino (Time: 5 min)

12 - Edge #4 - Profiting in Up, Down and Ranging markets (Time: 8 min)

13 - Edge #5 - Managing Exchange and Volatility Risk (Time: 3 min)

### Section 04 - Intuition - Strategy (Index: 4)

14 - Gameplan - Project Overview (Time: 6 min)

15 - What is Statistical Arbitrage and Cointegration (Time: 16 min)

16 - About cointegration metrics (Time: 7 min)

17 - Statistical Arbitrage - Benefits, Challenges and Risks (Time: 9 min)

### Section 05 - Intuition - Manual Trading (Index: 5)

18 - Manually Trading with ByBit - Overview (Time: 2 min)

19 - What ACTUALLY Moves Price (Time: 17 min)

20 - Other Important Orderbook Information (Time: 5 min)

21 - IMPORTANT: Check Your Leverage Settings (Time: 5 min)

22 - Placing Both MARKET and LIMIT Orders (Time: 11 min)

23 - All About Shorting Crypto (Optional) (Time: 11 min)

24 - Placing Our First Short Trade (Time: 1 min)

25 - Candlestick Charts (Optional, Recommended for Newbies) (Time: 10 min)

26 - About Conditional Orders and Closing Comments (Time: 3 min)

### Section 06 - Preparation - Exchange and Coding Environment (Index: 6)

27 - Creating Your TestNet Account (on ByBit) (Time: 7 min)

28 - Create Your API Keys (Time: 5 min)

29 - API Documentation Overview (Time: 11 min)

30 - Choosing Our Python IDE (Time: 3 min)

31 - Creating Our PyCharm Environment (Time: 4 min)

### Section 07 - Troubleshooting and Updated Code (Index: 7)

32 - Discord and Q&A (Time: 3 min)

Resource: Discord

33 - PyBIT ByBIT API New Walkthrough (Please Watch) (Time: 23 min)

Resource: Google Colab

34 - NEW: ByBit Code Repository Update (Time: 9 min)

### Section 08 - Execution - Strategy (Index: 8)

35 - Strategy - Coding Plan Review (Time: 4 min)

36 - Strategy - Getting Started (Time: 2 min)

37 - Creating Input Variables (Config File) (Time: 12 min)

38 - WebSockets and Rate Limits (Time: 7 min)

39 - Getting Tradeable Symbols (Time: 11 min)

40 - Getting and Storing Price Information - Part I (Time: 8 min)

41 - Getting and Storing Price Information - Part II (Time: 16 min)

42 - Checkpoint: Review Price History File (Time: 4 min)

43 - Structuring Close Prices (Time: 16 min)

44 - Calculating Cointegration (Time: 13 min)

45 - Saving and Ranking Pairs (Time: 19 min)

46 - Checkpoint II: Progress and Recap (Time: 2 min)

47 - Writing our Backtesting and Charting Scripts (Time: 20 min)

48 - Plotting and Analysing Charts (Time: 5 min)

49 - Backtesting - Performance Review (Time: 28 min)

50 - UPDATE - Automated Backtesting with PDF Output (Time: 21 min)

### Section 09 - Execution - Function Building Blocks (Index: 9)

51 - Reviewing Our Selected Trading Strategy Plan (Time: 10 min)

52 - Executing Coding Plan Review (Time: 9 min)

53 - Configuration Variables and API Connections (Time: 17 min)

54 - Establishing Our WebSocket Connection (Time: 5 min)

55 - Creating Calculation Functions (Time: 20 min)

56 - Testing Calculation Trade Details Function (Time: 4 min)

57 - Function for Position Side and Size (Time: 8 min)

58 - Closing Positions and Active Orders (Time: 13 min)

59 - Setting Leverage (Time: 5 min)

60 - Building Our Place Order Function (Time: 6 min)

61 - Initialise Order Execution (Time: 11 min)

62 - Price Calls - Part I (Time: 9 min)

63 - Price Calls - Part II (Time: 6 min)

64 - Price Calls - Getting Liquidity (Time: 8 min)

65 - Statistical Functions with Z-Score (Time: 3 min)

66 - Getting Latest Z-Score Signal (Time: 12 min)

67 - Checking for Open and Active Positions (Time: 7 min)

68 - Retrieving Price and Quantity for Open and Active Positions (Time: 8 min)

69 - Query Existing Orders (Time: 4 min)

70 - Checking Limit Order Status (Time: 15 min)

71 - Final Functions and Preparation (Time: 8 min)

### Section 10 - Execution - Bot Building (Index: 10)

72 - Starting Main Execution and Checking Positions (Time: 15 min)

73 - HOT Qualification and Liquidity Check (Time: 8 min)

74 - Determining Long, Short and Initial Capital (Time: 15 min)

75 - Placing Limit Orders (Time: 8 min)

76 - Placing BTC and ETH Orders (Liquidity Test) (Time: 10 min)

77 - Handling Limit Positions and Returning Kill Switch (Time: 15 min)

78 - Testing Our Bot (Time: 15 min)

79 - BUG FIX - Kill Switch (Time: 9 min)

80 - Restoring Bot to Intended Config (Time: 7 min)

81 - StatBot I Review (Time: 8 min)

### Section 11 - Execution - Summary (Index: 11)

82 - BONUS: StatBot II Overview (Time: 4 min)

83 - BONUS: StatBot II Code Walkthrough (Time: 6 min)

84 - Review of Strategy and StatBot Improvement Ideas (Time: 13 min)

85 - CONGRATULATIONS - Closing Comments (Time: 5 min)

### Section 12 - Appendix - Python Coding Crash Course (Index: 12)

86 - Setting Up a Python Working Environment (Time: 4 min)

87 - A Developers Mindset (Time: 5 min)

88 - Working with Variables, Lists and Dictionaries (Time: 28 min)

89 - Mastering the IF Statement (Time: 11 min)

90 - Mastering the FOR and While Loops (Time: 9 min)

91 - AND and OR Conditions (Time: 5 min)

92 - Fetching Crypto Prices - REQUESTS and JSON (Time: 7 min)

93 - Understanding Methods (AKA Functions) (Time: 12 min)

94 - Understanding Classes (Time: 11 min)

95 - Python Playground Code - Resources (Time: 1 min)

96 - Creating a Virtual Environment with PIP (Time: 11 min)

## Course ID: 5631164 - Gradual Buying and Selling Strategy With Cryptocurrencies

### Section 01 - VENI (Index: 1)

01 - About this course (Time: 1 min)

02 - The two rules of making money (Time: 2 min)

03 - Danger Elements (Time: 3 min)

04 - Let's get to know the headquarters (Time: 5 min)

Resource: HeadquartersEN.xlsx

05 - Let's move on to the sections according to our strategy (Time: 5 min)

06 - Let's move on to the 2nd section (Time: 5 min)

07 - Time intervals and profit targets (Time: 2 min)

### Section 02 - VIDI (Index: 2)

08 - Terminal pre-preparation (Time: 3 min)

09 - Closing times of candles during the day (Time: 1 min)

10 - Indicator 1 (Time: 3 min)

11 - Indicator 2 (Time: 3 min)

12 - Indicator 3 (Time: 1 min)

13 - Indicator 4 (Time: 1 min)

14 - Indicator 5 (Time: 1 min)

15 - Indicator 6 (Time: 1 min)

16 - Indicator 7 (Time: 1 min)

17 - Correction Movement (Time: 4 min)

18 - Let's get to know our system (Time: 12 min)

19 - How much can be earned in cryptocurrency trading? (Time: 2 min)

20 - Ethereum yielded 5000%! (Time: 10 min)

21 - Let's use the calculator (Time: 4 min)

22 - Multi-window usage (Time: 4 min)

23 - T.view practical usage (Time: 7 min)

24 - Linear and logarithmic charts (Time: 4 min)

25 - Divergences (Time: 6 min)

Resource: LightShot.rar

### Section 03 - VICI (Index: 3)

26 - Where to get stuck? (Time: 1 min)

27 - Join our 4S bot (Time: 1 min)

Resource: 4S\_Bot\_Link.txt

28 - Fiat Money (Time: 1 min)

Resource: Tether\_Transfer.pdf

29 - Let's choose our exchanges (Time: 1 min)

30 - Let's get to know 4S bot (Time: 7 min)

31 - Let's make our first purchases (Time: 17 min)

32 - Follow to understand the process (Time: 4 min)

33 - 4S Exercise (Time: 3 min)

Resource: DeskPins130.rar

34 - Let's make our first sales (Time: 6 min)

35 - Dead cat bounce (Time: 3 min)

36 - Candle Patterns (Time: 4 min)

37 - Coins that went to space - Open your radars! (Time: 9 min)

38 - The importance of 4-hour charts (Time: 2 min)

39 - Support - resistance zones (Time: 6 min)

40 - Perpetual - Spot coins and volume (Time: 4 min)

41 - Attention - There is art inside! (Time: 4 min)

42 - Let's use the Fibonacci tool (Time: 18 min)

43 - 5in1 indicator (Time: 7 min)

Resource: 5in1.txt

44 - 4S sniper Bot (Time: 4 min)

45 - BTC dominance relationship (Time: 9 min)

46 - Let's understand the trend (Time: 5 min)

47 - Use of stoploss (Time: 4 min)

48 - When does this strategy not work? (Time: 3 min)

49 - BTC and Halving (Time: 4 min)

50 - Trader Club Announcement Channel (Time: 1 min)

Resource: Link.txt

51 - Chat with the world's first known women Scalper (Time: 21 min)

52 - Course Summary (Time: 1 min)

## Course ID: 5763504 - A Primer on Quant Trading

### Section 01 - Order Book: Statistics, Dynamics, and Modeling (Index: 1)

01 - Book size and shape — empirical observations (Time: 12 min)

Resource: Section1\_script1.py

Resource: Section1\_script2.py

Resource: INTC2015-01-29.aggbook.dat

Resource: SYNTHETIC\_DATA2015-01-29.aggbook.dat

02 - Diffusion models of the order book (Time: 53 min)

03 - The Bouchaud-Mézard-Potters model (Time: 36 min)

### Section 02 - Liquidity Provision: Market Making and the Avellaneda-Stoikov Model (Index: 2)

04 - A basic market-making strategy (Time: 31 min)

Resource: Section2.py

Resource: Lesson2.dat

Resource: Lesson2.adverse.dat

Resource: Lesson2.jump.dat

05 - The Avellaneda-Stoikov Model (Time: 50 min)

### Section 03 - Market Impact, Spread, Liquidity (Index: 3)

06 - Measuring market impact on trade data; a simple model w/o feedback (Time: 16 min)

Resource: Section3.py

Resource: INTC2015-01-14.ts\_bbo.dat

07 - A comprehensive model with feedback (Time: 24 min)

08 - Permanent market impact – the general case (Time: 36 min)

### Section 04 - Optimal Execution (Index: 4)

09 - The liquidation problem: numerical experiments (Time: 17 min)

Resource: Section4.py

10 - The case without drift: a stochastic control approach (Time: 19 min)

11 - The case with drift (Time: 30 min)

## Course ID: 5070128 - Core Python 170+ Case Studies For Beginners

### Section 01 - Introduction (Index: 1)

01 - Introduction To Python (Time: 7 min)

02 - Features Of Python (Time: 3 min)

03 - Installing Python For Windows (Time: 5 min)

04 - Installation Of Pandas (Time: 3 min)

05 - Installation Of Anaconda Python (Time: 7 min)

06 - Installation Of Google Colab (Time: 5 min)

07 - Executing A Python Program (Time: 5 min)

08 - Comments In Python (Time: 3 min)

### Section 02 - Data Types In Python (Index: 2)

09 - Numeric Data Types (Time: 7 min)

10 - String Data Type (Time: 9 min)

11 - Bool Data Type (Time: 6 min)

12 - List Data Type (Time: 5 min)

13 - Tuple Data Type (Time: 6 min)

14 - Set Data Type (Time: 3 min)

15 - Frozenset Data Type (Time: 2 min)

16 - Bytes Data Type (Time: 2 min)

17 - Byte Array Data Type (Time: 3 min)

18 - Dictionary Data Type (Time: 7 min)

### Section 03 - Operators In Python (Index: 3)

19 - Arithmetic Operators In Python (Time: 8 min)

20 - Assignment Operators In Python (Time: 4 min)

21 - Comparison Operators In Python (Time: 4 min)

22 - Logical Operators In Python (Time: 3 min)

23 - Bitwise Operators In Python (Time: 6 min)

24 - Identity Membership Operators In Python (Time: 3 min)

### Section 04 - Input and Output Statements (Index: 4)

25 - A python program to accept a string from keyboard and display it. (Time: 1 min)

26 - A python program to accept a character from Keyboard (Time: 1 min)

27 - A Python Program To Accept An Integer Number From Keyboard (Time: 1 min)

28 - A Python Program to accept an Integer number from Keyboard : Method 2 (Time: 1 min)

29 - A Python Program to accept a float number from Keyboard (Time: 1 min)

30 - A Python Program to accept two numbers and find their sum. (Time: 3 min)

31 - A Python Program to display two numbers with comma separator. (Time: 2 min)

32 - A Python Program to Convert numbers from Hexadecimal, Octal, Binary into Decimal (Time: 5 min)

33 - A Python Program to accept 3 Integers in the same line and display their sum (Time: 2 min)

34 - A Python Program to accept a group of strings separated by commas and display (Time: 2 min)

35 - A Python Program to Evaluate an expression (Time: 2 min)

36 - A Python Program to Accept a List and Display it (Time: 1 min)

37 - A Python Program To Accept A Tuple And Display (Time: 1 min)

38 - A Python Program To Display Command Line Arguments (Time: 4 min)

39 - A Python Program To Find The Sum Of Even Numbers Using Command Line Arguments (Time: 4 min)

40 - A Python Program Using Argument Parser To Find The Square Of A Given Number (Time: 6 min)

### Section 05 - Control Statements In Python (Index: 5)

41 - A Python Program to Express a Digit in a Word (Time: 1 min)

42 - A Python Program To Display Multiple Statements When The Condition Is True (Time: 1 min)

43 - A Python Program To Test Whether A Number Is Even Or Odd (Time: 1 min)

44 - A Python Program To Accept A Number From The Keyboard And Test Whether It Is Eve (Time: 1 min)

45 - A Python Program To Test Whether A Given Number Is In Between 1 And 100 (Time: 1 min)

46 - A Python Program To Know If A Given Number Is Zero, Positive Or Negative (Time: 1 min)

47 - A Python Program To Accept A Numeric Digit From Keyboard And Display In Words (Time: 2 min)

48 - A Python Program To Display Numbers From 1 To 20 Using While Loop (Time: 1 min)

49 - A Python Program To Display Even Numbers From M And N (Time: 3 min)

50 - A Python Program To Display Characters Of A String Using For Loop (Time: 1 min)

51 - A Python Program To Display Each Character From A String Using Sequence Index (Time: 1 min)

52 - A Python Program To Display Odd Numbers Between 1 And 10 (Time: 1 min)

53 - A Python Program To Display Numbers From 10 To 1 Descending Order (Time: 1 min)

54 - A Python Program To Display The Element Of List Using For Loop (Time: 1 min)

55 - A Python Program To Display and Find The Sum Of List of Numbers Using For Loop (Time: 1 min)

56 - A Python To Display And Sum Of A List Of Numbers Using While Loop (Time: 2 min)

57 - A Python Program That Displays Stars In Right Angled Triangular Form Using Neste (Time: 2 min)

58 - A Python Program That Displays Stats In Right Angled Triangular From Using A Sin (Time: 1 min)

59 - A Python Program To Display The Stars In An Equilateral Triangular Form Using Fo (Time: 2 min)

60 - A Python Program To Search for an Element In List of Elements. (Time: 2 min)

61 - A Python Program To Display Numbers From 10 To 6 And Break The Loop When The Num (Time: 2 min)

62 - A Python Program To Display Numbers From 1 To 5 Using Continue Statement (Time: 2 min)

63 - An Example Program On Pass Statement (Time: 2 min)

64 - A Python Program To Retrieve Only Negative Number From A List Of Numbers (Time: 2 min)

65 - A Program To Assert That The User Enters A Number Is Greater Than Zero (Time: 2 min)

66 - A Python Program To Handle The Assertion error Exception That Is Given By Assert (Time: 2 min)

67 - A Python Program to Display Prime Numbers Up to The Given No (Time: 3 min)

### Section 06 - Arrays In Python (Index: 6)

68 - A Python Program To Create An Integer Type Array (Time: 2 min)

69 - A Python Program to Create an array with a group of characters (Time: 1 min)

70 - A Python Program to Create one array from another array (Time: 3 min)

71 - A Python Program to retrieve the elements of an array using array index (Time: 2 min)

72 - A Python Program to retrieve the elements of an array using while loop (Time: 2 min)

73 - A Python Program that helps to know the effects of slicing operations array (Time: 5 min)

74 - A Python Program to understand various methods of arrays class (Time: 6 min)

75 - A Python Program to store students marks into an array and find total & average (Time: 3 min)

76 - A Python Program to sort the array elements using bubble sort technique (Time: 6 min)

77 - Program to search for the position of an element in array using sequential searc (Time: 6 min)

78 - A Python Program to create a simple array using Numpy (Time: 4 min)

79 - A Python Program to Create a character type array with a group of characters. (Time: 2 min)

80 - A Python Program to Create an array from another array. (Time: 2 min)

81 - A Python Program to create an array with 5 equal points using linespace() (Time: 2 min)

82 - A Python Program to create an array using logspace() (Time: 3 min)

83 - Creating Arrays using arrange() Function (Time: 3 min)

84 - A Python Program to Create arrays using zeros() and ones() (Time: 3 min)

85 - Mathematical Operations on Arrays (Time: 4 min)

86 - A Python Program to Compare two arrays and display the resultant Boolean type ar (Time: 3 min)

87 - A Python Program to know the effects of any() and all() functions (Time: 2 min)

88 - A Python Program to alias an array and understand the affect of aliasing (Time: 3 min)

89 - A Python Program to Create a View of an existing array. (Time: 3 min)

90 - A Python Program to Copy an array as another array (Time: 3 min)

91 - Dimensions of Arrays (1D and 2D) (Time: 4 min)

92 - Attributes of an Array - 1 (Time: 4 min)

93 - Attributes of an Array - 2 (Time: 7 min)

94 - Indexing in Multi-dimensional Arrays (Time: 4 min)

95 - Transpose of a Matrix (Time: 4 min)

96 - Matrix Addition , Subtraction and Division (Time: 3 min)

97 - Matrix Multiplication (Time: 5 min)

### Section 07 - Lists and Tuples (Index: 7)

98 - A Python Program to Create lists with different types of elements (Time: 5 min)

99 - A Python Program to Create lists using range() function (Time: 4 min)

100 - A Python Program to access list elements using loops (Time: 2 min)

101 - Concatenation of two Lists (Time: 3 min)

102 - Aliasing the Lists (Time: 2 min)

103 - Cloning the List (Time: 2 min)

104 - List Processing Methods (Time: 6 min)

105 - Finding Biggest and Smallest Elements in a List (Time: 4 min)

106 - No of Occurrences of an Element in the List (Time: 4 min)

107 - Storing Different Types of Data in a List (Time: 6 min)

108 - Program : To Create a Nested List and Display its elements (Time: 2 min)

109 - List Comprehensions -I (Time: 2 min)

110 - List Comprehensions -II (Time: 3 min)

111 - Introduction to Tuples (Time: 4 min)

112 - Accessing the tuple elements (Time: 6 min)

113 - Program to accept elements in the form of a tuple and display (Time: 2 min)

114 - Modifying the elements into tuple (Time: 7 min)

115 - Deleting elements from the tuple (Time: 4 min)

116 - To find first occurrence of an element (Time: 4 min)

### Section 08 - Dictionaries in Python (Index: 8)

117 - Dictionaries In Python (Time: 7 min)

118 - Create Dictionaries In Python (Time: 7 min)

119 - Dictionary Methods In Python (Time: 4 min)

120 - Python Programming Using Dictionaries (Time: 6 min)

121 - Program To Sort Elements Of Dictionaries (Time: 4 min)

122 - Python Program with Strings Using Dictionaries (Time: 4 min)

123 - Usage Of For Loop (Time: 5 min)

### Section 09 - Functions in Python (Index: 9)

124 - Program 1 A Function That Accepts Two Values And Finds Their Sum (Time: 3 min)

125 - Program 2 A Python Program To Find The Sum Of Numbers And Return The Result From (Time: 1 min)

126 - Program 3 A Function To Test Whether A Number Is Even Or Odd (Time: 1 min)

127 - Program 4 Python Program To Calculate Factorial Value Of A Given Number (Time: 2 min)

128 - Program 5 Returning Multiple Values From A Function (Time: 2 min)

129 - Program 6 A Python Program To Know How To Define A Function Inside Another Funct (Time: 1 min)

130 - Program 7 A Program To Know How To Pass A Function As Parameter To Another Funct (Time: 2 min)

131 - Program 8 To Know How A Function Can (Time: 1 min)

132 - Program 9 To Pass An Integer To A Function And Modify It (Time: 3 min)

133 - Program 10 To Pass A List To A Function And Modify It (Time: 3 min)

134 - Program 11 Formal And Actual Arguments (Time: 2 min)

135 - Program 12 Positional Arguments (Time: 2 min)

136 - Program 13 Keyword Arguments (Time: 2 min)

137 - Program 14 Default Arguments (Time: 3 min)

138 - Program 15 Variable Length Arguments (Time: 3 min)

139 - Program 16 Recursive Function (Time: 2 min)

140 - Anonymous Functions Or Lambdas (Time: 2 min)

141 - Lambda Function To Calculate Sum Of Two Numbers (Time: 4 min)

142 - Using Lambdas With Filter () Function (Time: 3 min)

143 - Lambdas With Filter () Function In Python (Time: 2 min)

144 - Using Lambdas With Map () Function (Time: 4 min)

145 - Using Lambdas With Reduce() Function (Time: 3 min)

### Section 10 - File Handling in Python (Index: 10)

146 - A Python Program to Create a text file to store individual characters (Time: 3 min)

147 - A Python Program to read characters from a text file (Time: 2 min)

148 - A Python Program to store a group of strings into a text file (Time: 4 min)

149 - A Python Program to read all strings from the text file and display them . (Time: 2 min)

150 - A Python Program to read all strings (Time: 5 min)

151 - A Python Program To Know Whether A File Is Exiting or Not (Time: 4 min)

152 - A Python Program to count number of lines, words, and characters in a text file (Time: 5 min)

153 - Working With Binary Files (Time: 3 min)

154 - The with Statement (Time: 2 min)

155 - With Statement To Open A File & Read Data (Time: 1 min)

156 - Pickle in Python (Time: 7 min)

## Course ID: 5173778 - Master JSON Using Python

### Section 01 - Getting Started (Index: 1)

01 - Welcome to the Course! (Time: 1 min)

02 - Installing Python (Time: 3 min)

Resource: python.org

03 - Installing JupyterLab (Time: 3 min)

Resource: Python Package Index (PyPI)

Resource: jupyter.org

### Section 02 - JupyterLab Crash Course (Index: 2)

04 - Working with Python Files (Time: 4 min)

Resource: greeting.py

05 - Using the Terminal (Time: 2 min)

06 - Using Interactive Python Notebooks (Time: 7 min)

### Section 03 - JSON Structures (Index: 3)

07 - What is JSON? (Time: 0 min)

08 - Objects (Time: 6 min)

Resource: Lecture 8 - JSON Objects.ipynb

09 - Arrays (Time: 4 min)

Resource: Lecture 9 - JSON Arrays.ipynb

10 - Nested JSON (Time: 4 min)

Resource: Lecture 10 - Nested JSON.ipynb

### Section 04 - Converting JSON Structures to Python Structures (Index: 4)

11 - Data Type Compatibility (Time: 3 min)

12 - Deserializing JSON (Time: 7 min)

Resource: einstein\_quotes.json

Resource: Lecture 12 - Deserializing JSON.ipynb

13 - Serializing JSON (Time: 7 min)

Resource: weather\_alert.json

Resource: Lecture 13 - Serializing JSON.ipynb

### Section 05 - Manipulating Python Structures (Index: 5)

14 - Navigating Dictionaries & Lists (Time: 6 min)

Resource: Lecture 14 - Navigating Dictionaries & Lists.ipynb

Resource: navigate.json

15 - List Methods (Time: 7 min)

Resource: Lecture 15 - List Methods.ipynb

16 - Dictionary Methods (Time: 7 min)

Resource: Lecture 16 - Dictionary Methods.ipynb

### Section 06 - Using Pandas with JSON (Index: 6)

17 - Normalizing JSON (Time: 6 min)

Resource: Lecture 17 - Normalizing JSON.ipynb

Resource: sea\_level\_rise.json

18 - Exporting DataFrames to JSON (Time: 6 min)

Resource: Lecture 18 - Exporting DataFrames to JSON.ipynb

Resource: sea\_level\_rise.csv

### Section 07 - Working with APIs in Python (Index: 7)

19 - API Basics (Time: 2 min)

20 - Making Your First Request (Time: 4 min)

Resource: Lecture 20 - Making Your First Request-.ipynb

Resource: OpenWeatherAPI Sign Up

21 - Request Components (Time: 4 min)

Resource: Lecture 21 - Request Components.ipynb

22 - Response Components (Time: 3 min)

Resource: Lecture 22 - Response Components.ipynb

23 - Congratulations! (Time: 0 min)

## Course ID: 4510136 - Python for Software Engineering Bootcamp

### Section 01 - Introduction (Index: 1)

01 - Setting Up Our Coding Environment (Time: 7 min)

02 - Installing Python (Time: 3 min)

03 - Writing Our First Program (Time: 4 min)

04 - Variables (Time: 7 min)

05 - String (Time: 18 min)

06 - Integers, Floats, and Type Casting (Time: 16 min)

07 - Booleans and Boolean Operations (Time: 8 min)

08 - None Types (Time: 3 min)

09 - Lists (Time: 17 min)

10 - Tuples (Time: 8 min)

11 - Dictionaries (Time: 16 min)

12 - Formatting Strings and Writing Comments (Time: 18 min)

13 - If Statements (Time: 14 min)

14 - Elif and Else Statements (Time: 19 min)

15 - For Loops (Time: 19 min)

16 - While Loops (Time: 11 min)

17 - Functions (Time: 18 min)

18 - Function Parameters (Time: 18 min)

19 - Global Variables (Time: 7 min)

20 - File Handling (Time: 16 min)

21 - Virtual Environments (Time: 22 min)

22 - Launching Our First Application (Time: 18 min)

23 - Classes (Time: 23 min)

24 - Classes Inheritance (Time: 15 min)

25 - Decorators (Time: 22 min)

26 - Generators (Time: 13 min)

27 - JSON and Text Response (Time: 15 min)

28 - Typing (Time: 27 min)

29 - Response Models (Time: 25 min)

30 - Expanded Field Information (Time: 19 min)

31 - Path Prameters (Time: 13 min)

32 - Request Bodies (Time: 22 min)

33 - Query Parameters (Time: 27 min)

34 - Put and Delete (Time: 13 min)

35 - Docstrings (Time: 17 min)

36 - Async Functions (Time: 20 min)

37 - Directory Structure (Time: 31 min)

38 - API Routers Continued (Time: 7 min)

39 - Environment Variables (Time: 15 min)

40 - HTTP Status Codes (Time: 11 min)

41 - Exceptions (Time: 31 min)

42 - Logging (Time: 14 min)

43 - Logging Formatter (Time: 11 min)

44 - Custom Exception Handlers (Time: 13 min)

45 - Headers and Dependencies (Time: 26 min)

### Section 02 - Testing (Index: 2)

46 - Pytest Intro (Time: 14 min)

47 - Writing Our First Service Test (Time: 18 min)

48 - Fixtures (Time: 26 min)

49 - Integration Tests (Time: 29 min)

50 - Testing For Exceptions (Time: 7 min)

51 - Sending Requests in Python (Time: 20 min)

52 - Sending Async Requests (Time: 11 min)

53 - Testing Synchronous Requests (Time: 16 min)

54 - Testing Async Requests (Time: 10 min)

55 - Test Coverage (Time: 5 min)

56 - MyPy Round 2 (Time: 6 min)

### Section 03 - Intro to the Terminal (Index: 3)

57 - Digital Ocean Setup (Time: 15 min)

58 - SSH on Windows (Time: 6 min)

59 - Connecting With SSH (Time: 5 min)

60 - Basic Navigation (Time: 15 min)

61 - Creating Folders (Time: 10 min)

62 - Creating Files (Time: 11 min)

63 - Removing Folders and Files (Time: 7 min)

64 - Moving, Renaming, Copying Files and Folders (Time: 13 min)

65 - Environment Variables (Time: 9 min)

66 - Piping and Redirecting (Time: 6 min)

67 - Super User and Running Pythons Scripts (Time: 7 min)

68 - Executables and Modifying Permissions (Time: 15 min)

69 - Sending Requests (Time: 6 min)

### Section 04 - Docker (Index: 4)

70 - Docker Intro (Time: 9 min)

71 - Creating a Dockerfile (Time: 36 min)

72 - Multistage Build (Time: 22 min)

73 - Docker compose (Time: 33 min)

74 - Makefile (Time: 12 min)

### Section 05 - SQL (Index: 5)

75 - Intro to Relational Databases (Time: 15 min)

76 - Data Types and Schemas (Time: 18 min)

77 - [Mac] Setting Up a Local PostgreSQL Server (Time: 3 min)

78 - [Windows] Setting Up a Local PostgreSQL Server (Time: 5 min)

79 - [Mac] SQL Editor Postico (Time: 5 min)

80 - SQL Editor DataGrip (Time: 6 min)

81 - SQL Editor CLI (Time: 1 min)

82 - Creating and Removing a Database (Time: 6 min)

83 - Creating Schemas (Time: 4 min)

84 - Creating Tables (Time: 9 min)

85 - Altering Tables (Time: 3 min)

86 - Enumerated Types (Time: 5 min)

87 - Inserting Values (Time: 7 min)

88 - Running an SQL Script (Time: 6 min)

Resource: Chinook\_PostgreSql.sql

89 - Reading Data (Time: 7 min)

90 - Creating Tables Using Query Results (Time: 6 min)

91 - Aliases and Ordering (Time: 14 min)

92 - Conditional Filtering Direct Comparisons (Time: 5 min)

93 - Conditional Filtering Grouped Comparisons (Time: 10 min)

94 - Joining Conditionals (Time: 8 min)

95 - Negating Conditionals (Time: 5 min)

96 - Filtering Null Values (Time: 2 min)

97 - Creating New Columns and Arithmetics (Time: 8 min)

98 - Datatype Conversions (Time: 7 min)

99 - Logic Statements (Time: 7 min)

100 - Manipulating Strings (Time: 10 min)

101 - String Positional Information (Time: 8 min)

102 - String Subsets and Concatenations (Time: 22 min)

103 - String Replacements (Time: 10 min)

104 - Date and Time (Time: 7 min)

105 - Date and Time Intervals (Time: 8 min)

106 - Comments (Time: 7 min)

107 - Aggregation Functions (Time: 7 min)

108 - Grouping and Filtering Aggregations (Time: 12 min)

109 - Inner Join (Time: 19 min)

110 - Left, Right, and Outer Joins (Time: 17 min)

111 - Self Joins (Time: 9 min)

112 - Unions (Time: 5 min)

113 - Subqueries (Time: 9 min)

114 - CTEs (Time: 10 min)

115 - Window Functions and Aliases (Time: 15 min)

116 - Row Numbers and Ranks (Time: 6 min)

117 - Using Other Rows with Window Functions (Time: 11 min)

118 - NTiles (Time: 4 min)

119 - Understanding Query Performance (Time: 4 min)

### Section 06 - Integrating Databases into our Application (Index: 6)

120 - Adding Postgres into our Docker Compose (Time: 15 min)

121 - Creating Database Models in Python (Time: 38 min)

122 - Database Migrations (Time: 31 min)

123 - SQLAlchemy ORM Intro (Time: 20 min)

124 - Creating a Database Client (Time: 22 min)

125 - Updating our Application to Read From the Database (Time: 26 min)

126 - Database Inserts (Time: 12 min)

127 - Database Updates (Time: 11 min)

128 - Database Deletes (Time: 3 min)

129 - Async Database Queries (Time: 12 min)

130 - Async Updates (Time: 7 min)

131 - Updating Unit Tests to Work With the Database (Time: 15 min)

132 - Updating Integration Tests to Work With the Database (Time: 12 min)

133 - SQLite for Testing (Time: 22 min)

134 - Mocking (Time: 31 min)

### Section 07 - Caching (Index: 7)

135 - Redis Intro (Time: 32 min)

136 - Adding Caching Into Our Application (Time: 30 min)

137 - Redis Hash Intro (Time: 20 min)

138 - Redis Sets Intro (Time: 4 min)

139 - Adding Hash Caching to Pagination Endpoint (Time: 28 min)

140 - Python Object Serialization (Time: 15 min)

141 - Cache Flushing (Time: 11 min)

142 - Data Compression (Time: 11 min)

### Section 08 - Linting (Index: 8)

143 - MyPy Configurations (Time: 23 min)

144 - Import Sorting (Time: 12 min)

145 - Automatic Code Formatting (Time: 4 min)

146 - Additional Code Checking (Time: 8 min)

### Section 09 - Github (Index: 9)

147 - Github Credentials Setup (Time: 6 min)

148 - Github Desktop Setup (Time: 1 min)

149 - Cloning A Repository (Time: 4 min)

150 - Pushing a Local Repository to Github (Time: 14 min)

151 - Reverting and Squashing Commits (Time: 10 min)

152 - GitHub Branches (Time: 8 min)

153 - Pull Request (Time: 17 min)

154 - Precommit Hooks (Time: 12 min)

155 - Github CI (Time: 22 min)

156 - Tagged Release (Time: 22 min)

157 - Reading Documentation (Time: 11 min)

### Section 10 - Concurrent and Parallel Programming (Index: 10)

158 - Threading, Multiprocessing, Async Intro (Time: 14 min)

159 - Threading in Python (Time: 19 min)

160 - Creating a Threading Class (Time: 15 min)

161 - Creating a Wikipedia Reader (Time: 14 min)

162 - Creating a Yahoo Finance Reader (Time: 16 min)

163 - Queues and Master Scheduler (Time: 15 min)

164 - Creating a Postgres Worker (Time: 22 min)

165 - Integrating the Postgres Worker (Time: 20 min)

166 - Yaml File Intro (Time: 18 min)

167 - Creating a Yaml Reader (Time: 31 min)

168 - Improving Our Wiki Worker (Time: 28 min)

169 - Improving All Workers and Adding Monitoring (Time: 29 min)

170 - Final Program Cleanup (Time: 7 min)

171 - Locking (Time: 12 min)

172 - Multiprocessing Intro (Time: 7 min)

173 - Multiprocessing Queues (Time: 8 min)

174 - Multiprocessing Pool (Time: 11 min)

175 - Multiprocessing Pool Map Multiple Arguments (Time: 4 min)

176 - Multiprocessing Multiple Varying Arguments (Time: 5 min)

177 - Multiprocessing Checking Elements in List in Certain Ranges (Time: 6 min)

178 - Intro to Writing Asynchronous Programs (Time: 12 min)

179 - Asynchronous Tasks (Time: 6 min)

180 - Async Gather Method (Time: 8 min)

## Course ID: 4601546 - Visual Studio Code for Developers 2025: Beginner to Advanced

### Section 01 - Welcome to the Course: Visual Studio Code for Developers (Index: 1)

01 - Welcome to the Course (Time: 1 min)

02 - Key Information for Course Success (Time: 2 min)

03 - Keyboard Shortcuts: Download Your PDF Guide (Time: 1 min)

Resource: Visual Studio Code Keyboard Shortcuts.pdf

04 - A Warm Welcome: Introduce Yourself and Share Your Goals (Time: 0 min)

### Section 02 - Getting Started with Visual Studio Code (Index: 2)

05 - Welcome to this Section (Time: 1 min)

06 - What is Visual Studio Code? Introduction to Code Editors (Time: 1 min)

07 - Download and Install Visual Studio Code (Time: 5 min)

08 - Downloadable Course Resources (Time: 1 min)

Resource: Images.zip

Resource: index.html

Resource: style.css

Resource: click-counter.zip

Resource: dice-game.py

Resource: fibonacci.py

Resource: my-app.zip

Resource: virtual-environment.py

Resource: all-course-resources.zip

09 - Visual Studio Code Updates and Color Theme (Time: 1 min)

10 - The User Interface (Panels, Bars, and Tools) (Time: 8 min)

11 - Let's Review the User Interface (Time: 0 min)

12 - Glyph Margin and Minimap (Time: 3 min)

13 - How to Zoom in the Editor and User Interface (Time: 4 min)

14 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 03 - Working with Files and Folders (Index: 3)

15 - Welcome to this Section (Time: 1 min)

16 - How to Create a File (Time: 4 min)

17 - How to Save a File (Time: 4 min)

18 - How to Open a File (Time: 1 min)

19 - How to Open a Folder (Time: 3 min)

20 - How to Open Multiple Files and the Preview Mode (Time: 3 min)

21 - How to Enable and Disable Auto Save (Time: 2 min)

22 - How to Close Files and Folders (Time: 2 min)

23 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 04 - How to Edit a Project in the Explorer (Index: 4)

24 - Welcome to this Section (Time: 1 min)

25 - Introduction to the Explorer (Time: 2 min)

26 - Create and Delete Files in the Explorer (Time: 3 min)

27 - Create and Delete Folders in the Explorer (Time: 3 min)

28 - Move Files and Folders in the Explorer (Time: 5 min)

29 - Expand and Collapse Folders in the Explorer (Time: 3 min)

30 - Rename a File in the Explorer (Time: 1 min)

31 - Drag and Drop a File (Time: 2 min)

32 - Refresh the Explorer (Time: 1 min)

33 - Collapsing All Folders (Time: 2 min)

34 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 05 - Search in Visual Studio Code (Index: 5)

35 - Welcome to this Section (Time: 1 min)

36 - Downloading our React App (Time: 1 min)

37 - How to Search on the Sidebar (Time: 4 min)

38 - 'code' Command Not Found? Add it to PATH on macOS (Time: 0 min)

39 - Match Case (Time: 2 min)

40 - Match Whole Word (Time: 2 min)

41 - Searching with Regular Expressions (Time: 1 min)

42 - Search and Replace (Time: 5 min)

43 - Preserve Case and More Options (Time: 2 min)

44 - Include and Exclude Files from Search (Time: 2 min)

45 - Search Only in Open Editors (Time: 1 min)

46 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 06 - The Integrated Terminal and the Command Prompt (Index: 6)

47 - Welcome to this Section (Time: 1 min)

48 - An Introduction to the Terminal (Time: 0 min)

49 - Launch Visual Studio Code from the Terminal (Time: 3 min)

50 - Add code to PATH on macOS (Time: 1 min)

51 - Open Files in Visual Studio Code from the Command Prompt (Time: 3 min)

52 - Open Multiple Files in Visual Studio Code from the Command Prompt (Time: 2 min)

53 - The Integrated Terminal in Visual Studio Code (Time: 3 min)

54 - Install Node.js to run npm start (Time: 0 min)

55 - Multiple Terminals and the Terminal Shell (Time: 7 min)

56 - Command Line Help (Time: 1 min)

57 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 07 - Customize Visual Studio Code + Settings (Index: 7)

58 - Welcome to this Section (Time: 1 min)

59 - How to Open the Settings Panel (Time: 2 min)

60 - Frequently Used Settings (Time: 6 min)

61 - Change Tabs to Spaces and Spaces to Tabs (Time: 3 min)

62 - Change the Number of Spaces per Level of Indentation (Time: 3 min)

63 - Change the Color Theme (Time: 4 min)

64 - How to Show or Hide the Minimap (Time: 1 min)

65 - Multiple, One, or No Editor Tabs (Time: 2 min)

66 - Resize Panels and Split the Editor (Time: 3 min)

67 - Wrap Long Lines (Time: 4 min)

68 - Customize the Settings for Each Programming Language (Time: 4 min)

69 - Default Settings (Time: 0 min)

70 - Customizing the Integrated Terminal (Time: 6 min)

Resource: Theme Color Article - Visual Studio Code Documentation

71 - Move the Terminal (Right, Left, Bottom) (Time: 1 min)

72 - Bracket Pair Colorization (Time: 1 min)

73 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 08 - Improve your Productivity in Visual Studio Code (Index: 8)

74 - Welcome to this Section (Time: 1 min)

75 - Important Keyboard Shortcuts (Time: 11 min)

76 - How to Customize Keyboard Shortcuts (Time: 6 min)

77 - Editor Groups (Time: 4 min)

78 - Jump Between Editor Groups (Time: 2 min)

79 - Workspaces with Multiple Folders (Time: 11 min)

80 - Full Screen Mode (Time: 1 min)

81 - Toggle the Menu Bar (Time: 2 min)

82 - Zen Mode in Visual Studio Code (Time: 2 min)

83 - Fast Scrolling (Time: 2 min)

84 - Sticky Scroll (Time: 5 min)

85 - File Rename Selection (Time: 2 min)

86 - Create Files and Folders Simultaneously (Time: 2 min)

87 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 09 - Extensions in Visual Studio Code (Index: 9)

88 - Welcome to this Section (Time: 1 min)

89 - What is an Extension? (Time: 1 min)

90 - How to Install an Extension in Visual Studio Code (Time: 4 min)

91 - How to Manage and Uninstall Extensions (Time: 3 min)

92 - Disable and Enable Extensions (Time: 2 min)

93 - Disable Auto Update for All Extensions (Time: 1 min)

94 - Auto Update Extensions (Time: 1 min)

95 - Filter and Sort Extensions in the Marketplace (Time: 4 min)

96 - Popular Extension: Prettier (Time: 7 min)

97 - Popular Extension: ESLint (Time: 10 min)

98 - Popular Extension: Python (Time: 2 min)

99 - Popular Extension: React Snippets (Time: 2 min)

100 - Popular Extension: Jupyter Notebooks (Time: 2 min)

101 - Popular Extension: Live Server (Time: 4 min)

102 - How to Customize the Settings of an Extension (Time: 3 min)

103 - Popular Extension: CodeSnap (Time: 14 min)

104 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 10 - Code Snippets in Visual Studio Code (Index: 10)

105 - Welcome to this Section (Time: 1 min)

106 - What is a Code Snippet? (Time: 1 min)

107 - How to Add a Built-in Code Snippet (Time: 7 min)

108 - Install Code Snippets from the Extensions Marketplace (Time: 5 min)

109 - Define New Custom Code Snippets (Time: 9 min)

110 - Hide and Remove Code Snippets (Time: 4 min)

111 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 11 - Web Development in Visual Studio Code (Index: 11)

112 - Welcome to this Section (Time: 1 min)

113 - Adjusting Panels and Layout for HTML, CSS, and JavaScript (Time: 5 min)

114 - The Liver Server Extension - See your Changes Immediately (Time: 6 min)

115 - The Live Preview Extension (Time: 4 min)

116 - Emmet Abbreviations - Write HTML Faster in Visual Studio Code (Time: 9 min)

117 - Extensions for Web Development (Time: 6 min)

118 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 12 - Git and GitHub in Visual Studio Code (Index: 12)

119 - Welcome to this Section (Time: 1 min)

120 - Built-in Git and GitHub Support in Visual Studio Code (Time: 1 min)

121 - The Source Control Panel + Initialize a Repository (Time: 3 min)

122 - Delete a Repository (Time: 2 min)

123 - State Codes - Untracked and Modified (Time: 2 min)

124 - Stage Changes and Make a Commit (Time: 5 min)

125 - Discard Changes (Time: 5 min)

126 - View as Tree or View as List (Time: 4 min)

127 - Commits and Commit History (Time: 5 min)

128 - Add a Remote GitHub Repository (Time: 5 min)

129 - Clone a GitHub Repository (Time: 1 min)

130 - Push Changes to your GitHub Repository (Time: 2 min)

131 - Pull Changes from your GitHub Repository (Time: 3 min)

132 - Create a Branch (Time: 2 min)

133 - Create new branch vs. Create new branch from... (Time: 0 min)

134 - Checkout a Branch (Time: 3 min)

135 - Push a Branch to GitHub (Time: 2 min)

136 - Pull a Branch from GitHub (Time: 4 min)

137 - Merge Branches (Time: 3 min)

138 - Rename a Branch (Time: 2 min)

139 - Delete a Branch (Time: 2 min)

140 - Remove a Remote (Time: 1 min)

141 - The Git Output Window (Time: 0 min)

142 - Popular Source Control Extensions for Visual Studio Code (Time: 3 min)

143 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 13 - Python Development in Visual Studio Code (Index: 13)

144 - Welcome to this Section (Time: 1 min)

145 - Quick Tip: How to Leave or Update Your Review (Time: 0 min)

146 - The Python Extension (Time: 3 min)

147 - Add Python to PATH (Time: 1 min)

148 - Select a Python Interpreter (Time: 2 min)

149 - Change Indentation to 4 Spaces (Time: 0 min)

150 - Python Linting in Visual Studio Code (Time: 3 min)

151 - See Linting Output (Time: 3 min)

152 - Run a Python File in the Terminal (Time: 2 min)

153 - Create Virtual Environments and Install Packages (Time: 4 min)

154 - Customize your Python Settings (Time: 0 min)

155 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 14 - Debugging in Visual Studio Code (Index: 14)

156 - Welcome to this Section (Time: 1 min)

157 - What is the Debugger? (Time: 0 min)

158 - The Run and Debug Tool (Time: 2 min)

159 - Introduction to the Debugger (Time: 9 min)

160 - Debug Actions (Time: 8 min)

161 - Breakpoints and Debugging (Time: 5 min)

162 - Function Breakpoints (Time: 3 min)

163 - Enabled vs. Disabled Breakpoints (Time: 0 min)

164 - Logpoints (Time: 4 min)

165 - How to Inspect Variables at Breakpoints (Time: 3 min)

166 - Conditional Breakpoints (Time: 4 min)

167 - Watch Variables and Expressions (Time: 4 min)

168 - Hit Count Breakpoints (Time: 3 min)

169 - Discussion Topic: Share your Thoughts (Time: 0 min)

### Section 15 - Jupyter Notebooks in Visual Studio Code (Index: 15)

170 - Welcome to this Section (Time: 1 min)

171 - What is a Jupyter Notebook? (Time: 0 min)

172 - The Jupyter Notebooks Extension (Time: 2 min)

173 - Install the ipykernel for Jupyter Notebooks (Time: 0 min)

## Course ID: 6024616 - Automate Video Editing with Python and MoviePy

### Section 01 - Introduction : Automate Video Editing with Python and MoviePy (Index: 1)

01 - Course Introduction (Time: 1 min)

### Section 02 - Install Python, Visual Studio Code and Dependencies (Index: 2)

02 - Development Environment (Time: 1 min)

03 - Install Python and Visual Studio Code (VS Code) (Time: 6 min)

04 - Install MoviePy Library (Time: 1 min)

### Section 03 - Create Project Folder and Download Training Resources (Index: 3)

05 - Create Project Folder and Download Resources (Time: 6 min)

06 - Download the Resources (Time: 0 min)

Resource: MoviePy\_Course\_Resources.zip

### Section 04 - Project: Automating mass video editing with Python and MoviePy (Index: 4)

07 - Combine Multiple Clips to Create a Full HD Video (Time: 15 min)

08 - Download the Python Code (Time: 0 min)

Resource: automatic\_video\_editing\_v1.py

09 - Automatically Add Music and Set Its Duration (Time: 13 min)

10 - Download the Python Code (Time: 0 min)

Resource: automatic\_video\_editing\_v2.py

11 - Before Continuing with the Course... (Time: 0 min)

12 - Automate the Process of Adding an Intro and an Outro (Time: 12 min)

13 - Download the Python Code (Time: 0 min)

Resource: automatic\_video\_editing\_v3.py

14 - Automatically Add Transitions Between Clips (Time: 12 min)

15 - Download the Python Code (Time: 0 min)

Resource: automatic\_video\_editing\_v4.py

16 - Install ImageMagick to Extend MoviePy's Capabilities (Part 1) (Time: 7 min)

17 - Install ImageMagick to Extend MoviePy's Capabilities (Part 2) (Time: 2 min)

18 - Automatically Add Text to Videos (Time: 14 min)

19 - Download the Python Code (Time: 0 min)

Resource: automatic\_video\_editing\_v5\_final.py

### Section 05 - Conclusion And Tips (Index: 5)

20 - End of the Course (Time: 4 min)

21 - Download the Final Python Code (Time: 0 min)

Resource: automatic\_video\_editing\_v5\_final.py

22 - My Other Udemy Courses (Time: 0 min)

## Course ID: 1035000 - Docker Mastery: with Kubernetes +Swarm from a Docker Captain

### Section 01 - Quick Start! (Index: 1)

01 - What is Docker in 2025? The Three Innovations (Time: 10 min)

Resource: Kuberenetes vs. Docker (bretfisher.com)

Resource: OCI Overview

Resource: Read this Lecture on GitHub

Resource: Section Commands and Links.pdf

02 - Quick Container Run (Time: 11 min)

Resource: Play With Docker

Resource: Docker Hub

Resource: Docker Official Images

Resource: Apache httpd Image

Resource: Read this Lecture on GitHub

03 - Why Docker? Why Now in 2025? (Time: 11 min)

Resource: A Brief History of Containers: From the 1970s till now (aquasec.com)

Resource: Read this Lecture on GitHub

### Section 02 - Course Introduction (Index: 2)

04 - Course Roadmap (overview) (Time: 4 min)

05 - Getting Course Resources (GitHub Repo) (Time: 1 min)

Resource: GitHub Repository For This Course

Resource: Docker Mastery Slides 3.0.zip

Resource: Docker Mastery Commands 2.0.zip

Resource: docker\_cheatsheet.pdf

06 - Course Chat with Students Learning Containers (Time: 0 min)

07 - YouTube Live Q&A with Bret (Time: 0 min)

08 - The Big FAQ (Time: 5 min)

### Section 03 - The Best Way to Setup Docker for Your OS (Index: 3)

09 - Installing The Right Docker for this course (Time: 10 min)

Resource: Docker Desktop Alternatives

Resource: Download Docker Desktop

Resource: OCI: Open Container Initiative

10 - Installing Docker: The Fast Way (Time: 2 min)

11 - Docker for Windows: Setup and Tips (Time: 17 min)

Resource: Docker Desktop Install on Windows

Resource: Alternatives to Docker Desktop

Resource: Course GitHub Repo

12 - Docker for Mac: Setup and Tips (Time: 10 min)

Resource: Docker Desktop Install for Mac

Resource: Alternatives to Docker Desktop

Resource: Course GitHub Repo

13 - Docker for Linux Desktop: Setup and Tips (Time: 13 min)

Resource: Docker Desktop Install for Linux Desktops

Resource: Alternatives to Docker Desktop

Resource: Course GitHub Repo

14 - Docker for Linux Server: Setup and Tips (Time: 14 min)

Resource: Docker Engine install for Linux server

Resource: Course GitHub Repo

15 - VS Code for DevOps, Docker, and YAML Editing (Time: 9 min)

Resource: Download VS Code

Resource: Extension: Docker

Resource: Extension Kubernetes

Resource: Extension: Remote Development

Resource: Extension: Live Share

16 - Docker Version and Products Changes (Time: 2 min)

### Section 04 - Creating and Using Containers Like a Boss (Index: 4)

17 - Check Our Docker Install and Config (Time: 7 min)

Resource: S03 Containers Slides.pdf

Resource: DM S03 Commands.txt

18 - Starting a Nginx Web Server (Time: 9 min)

19 - Debrief: What Happens When We Run a Container (Time: 2 min)

20 - Container VS. VM: It's Just a Process (Time: 4 min)

Resource: Mike Coleman (Docker Employee) "Docker for the Virtualization Admin" eBook

Resource: Docker Internals: cgroups, namespaces, and beyond (YouTube)

Resource: Docker for Mac Commands for Getting Into Local Docker VM

Resource: Docker for Windows Command for Getting Into Local Docker VM

21 - Windows Containers: Should You Consider Them? (Time: 2 min)

22 - Assignment: Manage Multiple Containers (Time: 4 min)

23 - Assignment Answers: Manage Multiple Containers (Time: 6 min)

24 - What's Going On In Containers: CLI Process Monitoring (Time: 5 min)

25 - Use MariaDB rather than MySQL (Time: 0 min)

26 - Getting a Shell Inside Containers: No Need for SSH (Time: 11 min)

Resource: Package Management Basics: apt, yum, dnf, pkg

27 - Docker Networks: Concepts for Private and Public Comms in Containers (Time: 12 min)

Resource: Docker's --format option for filtering cli output

28 - FIXME: Change In Official Nginx Image Removes Ping (Time: 0 min)

29 - Docker Networks: CLI Management of Virtual Networks (Time: 8 min)

30 - Docker Networks: DNS and How Containers Find Each Other (Time: 6 min)

Resource: DNS Basics (blog and video)

Resource: DNS Basics (in a comic, fun!)

31 - Assignment: Using Containers for CLI Testing (Time: 2 min)

32 - Assignment Answers: Using Containers for CLI Testing (Time: 3 min)

33 - Changes To Upcoming Assignment (Time: 3 min)

34 - Assignment: DNS Round Robin Test (Time: 5 min)

Resource: Round-robin DNS, what is it?

35 - Assignment Answers: DNS Round Robin Test (Time: 4 min)

### Section 05 - Container Images, Where To Find Them and How To Build Them (Index: 5)

36 - What's In An Image (and What Isn't) (Time: 2 min)

Resource: DM S04 Commands.txt

Resource: S04 Images Slides.pdf

Resource: Docker Image Specification

37 - The Mighty Hub: Using Docker Hub Registry Images (Time: 12 min)

Resource: List of Official Docker Images

38 - Images and Their Layers: Discover the Image Cache (Time: 13 min)

Resource: Docs: Image storage, drivers, and layers

39 - Image Tagging and Pushing to Docker Hub (Time: 12 min)

40 - Building Images: The Dockerfile Basics (Time: 7 min)

Resource: Dockerfile Command Details (BOOKMARK AND REVIEW, lots of good details you'll use often when making Dockerfiles)

41 - Building Images: Running Docker Builds (Time: 4 min)

42 - Building Images: Extending Official Images (Time: 5 min)

43 - Assignment: Build Your Own Dockerfile and Run Containers From It (Time: 4 min)

44 - Assignment Answers: Build Your Own Dockerfile and Run Containers From It (Time: 8 min)

45 - Using Prune to Keep Your Docker System Clean (YouTube) (Time: 0 min)

### Section 06 - Persistent Data: Volumes, Volumes, Volumes (Index: 6)

46 - Container Lifetime & Persistent Data (Time: 4 min)

Resource: Intro to Immutable Infrastructure Concepts

Resource: The 12-Factor App (Everyone Should Read: Key to Cloud Native App Design, Deployment, and Operation)

Resource: 12 Fractured Apps (A follow-up to 12-Factor, a great article on how to do 12F correctly in containers)

Resource: Docker Storage Introduction in Docker Docs

Resource: DM S05 Commands.txt

Resource: S05 Volumes Slides.pdf

47 - Persistent Data: Data Volumes (Time: 9 min)

48 - Shell Differences for Path Expansion (Time: 1 min)

49 - Persistent Data: Bind Mounting (Time: 7 min)

50 - Database Passwords in Containers (Time: 2 min)

51 - Updated Postgres Version for Next Video Assignment (Time: 0 min)

52 - Assignment: Database Upgrades with Named Volumes (Time: 4 min)

53 - Assignment Answers: Update for Recent Postgres Changes (Time: 0 min)

54 - Assignment Answers: Database Upgrades with Named Volumes (Time: 4 min)

55 - File Permissions Across Multiple Containers (Time: 3 min)

56 - Assignment: Edit Code Running In Containers With Bind Mounts (Time: 4 min)

Resource: Jekyll, a Static Site Generator (just as background info, no need to install)

57 - Assignment Answers: Edit Code Running In Containers With Bind Mounts (Time: 3 min)

### Section 07 - Dockerfile ENTRYPOINT (Index: 7)

58 - Intro: Review before ENTRYPOINT (Time: 2 min)

Resource: Docs: Dockerfile reference

Resource: S07 Dockerfile Entrypoint.md

59 - Buildtime vs. Runtime (Time: 4 min)

Resource: Dockerfile Buildtime vs Runtime Cheatsheet 2025-01.pdf

60 - What's an ENTRYPOINT? (Time: 9 min)

Resource: Docs: ENTRYPOINT

61 - Using ENTRYPOINT and CMD together (Time: 11 min)

Resource: MySQL Docker Hub Image

Resource: SIGINT, SIGTERM, and SIGKILL

Resource: Docker Blog: Choosing between RUN, CMD, and ENTRYPOINT

Resource: PIDs in Linux and Unix

62 - Shell vs Exec Form (Time: 7 min)

Resource: (Docs) Shell and Exec Form

Resource: (Docs) How CMD and ENTRYPOINT interact

Resource: (Docs) The SHELL statement

Resource: (Docs) ENTRYPOINT Examples

Resource: Crazy ENTRYPOINT, CMD, and SHELL examples

63 - Assignment 1: Create CLI Utilities (Time: 4 min)

Resource: Assignment instructions

64 - Assignment 1: Your Homework (Time: 0 min)

65 - Assignment 1 Answer: Create CLI Utilities (Time: 18 min)

Resource: Assignment instructions

66 - Assignment 2: Startup Scripts (Time: 1 min)

Resource: Assignment instructions

67 - Assignment 2: Your Homework (Time: 0 min)

68 - Assignment 2 Answer: Startup Scripts (Time: 19 min)

Resource: Assignment instructions

### Section 08 - Making It Easier with Docker Compose: The Multi-Container Tool (Index: 8)

69 - Docker Compose and The docker-compose.yml File (Time: 10 min)

Resource: The YAML Format: Quick Reference

Resource: Compose File Version Differences (Docker Docs)

Resource: Docker Compose Release Downloads (good for Linux users that need to download manually)

Resource: S06 Compose Slides.pdf

Resource: DM S06 Commands.txt

Resource: S06 Compose Slides.pdf

Resource: YAML Official Site

Resource: YAML vs. JSON

70 - Compose V2 (Time: 0 min)

71 - Trying Out Basic Compose Commands (Time: 9 min)

Resource: docker-compose download for Linux via GitHub, Win/Mac already have it.

Resource: Compose vs. Swarm for production

72 - Version Dependencies in Multi-Tier Apps (Time: 1 min)

73 - Compose Assignments (Time: 0 min)

74 - Compose-Assignment-1: Build a Compose File For a Multi-Container Project (Time: 3 min)

Resource: Compose File References

Resource: Don't use Links, it's a legacy feature

75 - Compose-Assignment-1 Answers: Build a Compose File For a Multi-Container Project (Time: 10 min)

76 - Adding Image Building to Compose Files (Time: 9 min)

Resource: Compose Build documentation

77 - Using MariaDB rather than PostgreSQL (Time: 0 min)

78 - Compose-Assignment-2: Compose For Image Building (Time: 3 min)

79 - Compose-Assignment-2 Answers: Compose For Image Building (Time: 11 min)

### Section 09 - Swarm Intro and Creating a 3-Node Swarm Cluster (Index: 9)

80 - Swarm Mode: Built-In Orchestration (Time: 9 min)

Resource: Docker 1.12 Swarm Mode Deep Dive Part 1: Topology (YouTube)

Resource: Docker 1.12 Swarm Mode Deep Dive Part 2: Orchestration (YouTube)

Resource: Heart of the SwarmKit: Topology Management (slides)

Resource: Heart of the SwarmKit: Store, Topology & Object Model (YouTube)

Resource: Raft Consensus Visualization (Our Swarm DB and how it stays in sync across nodes)

Resource: DM S07 Commands.txt

Resource: S07 Swarm Intro Slides.pdf

81 - Create Your First Service and Scale It Locally (Time: 12 min)

Resource: Deploy services to a swarm (Docker Docs)

82 - UI Change For Service Create/Update (Time: 1 min)

83 - Use Multipass to create Docker, Swarm, and K8s VMs (Time: 1 min)

84 - Creating a 3-Node Swarm Cluster (Time: 15 min)

Resource: Create and Upload a SSH Key to Digital Ocean

Resource: Docker Swarm Firewall Ports

Resource: Configure SSH for Saving Options for Specific Connections

Resource: Windows Hyper-V driver for docker-machine

Resource: DigitalOcean $100 credit on new signups

### Section 10 - Swarm Basic Features and How to Use Them In Your Workflow (Index: 10)

85 - Sections Requirements for Swarm, Drupal, and Postgres (Time: 1 min)

86 - Jan 2025: Bug in Play-with-Docker Swarm networking (Time: 0 min)

87 - Scaling Out with Overlay Networking (Time: 7 min)

Resource: S08 Swarm Basic Features Slides.pdf

Resource: DM S08 Commands.txt

88 - Scaling Out with Routing Mesh (Time: 9 min)

Resource: Use swarm mode routing mesh (Docker Docs)

89 - Assignment: Create A Multi-Service Multi-Node Web App (Time: 6 min)

90 - Assignment Answers: Create A Multi-Service Multi-Node Web App (Time: 11 min)

91 - Swarm Stacks and Production Grade Compose (Time: 14 min)

Resource: Swarm vs. Compose

92 - Secrets Storage for Swarm: Protecting Your Environment Variables (Time: 5 min)

93 - Using Secrets in Swarm Services (Time: 7 min)

Resource: Manage sensitive data with Docker secrets (Docker Docs) (Lots of good reading and examples)

94 - Using Secrets with Swarm Stacks (Time: 4 min)

Resource: Secrets in Compose Files

95 - Assignment: Create A Stack with Secrets and Deploy (Time: 2 min)

96 - Assignment Answers: Create A Stack with Secrets and Deploy (Time: 4 min)

### Section 11 - Swarm App Lifecycle (Index: 11)

97 - Using Secrets With Local Docker Compose (Time: 3 min)

Resource: DM S09 Commands.txt

Resource: S09 Swarm App Lifecycle Slides.pdf

98 - Full App Lifecycle: Dev, Build and Deploy With a Single Compose Design (Time: 10 min)

Resource: Using Multiple Compose Files (Docker Docs)

Resource: Using Compose Files In Production (Docker Docs)

99 - Service Updates: Changing Things In Flight (Time: 9 min)

Resource: Service Update command (Docker Docs)

100 - Healthchecks in Dockerfiles (Time: 13 min)

Resource: PHP Laravel Good Defaults with Docker

Resource: HEALTHCHECK in Dockerfile (Docker Docs)

Resource: Healthcheck in Compose files (Docker Docs)

101 - Info on Swarm Mastery (Time: 1 min)

### Section 12 - Container Registries: Image Storage and Distribution (Index: 12)

102 - Docker Hub: Digging Deeper (Time: 8 min)

Resource: Docker Hub

Resource: DM S10 Commands.txt

Resource: S10 Container Registries Slides.pdf

103 - Understanding Docker Registry (Time: 4 min)

Resource: Use Registry As A "Mirror" of Docker Hub

Resource: Registry Docs

Resource: Registry Garbage Collection

104 - Run a Private Docker Registry (Time: 7 min)

105 - Assignment: Secure Docker Registry With TLS and Authentication (Time: 1 min)

106 - Using Docker Registry With Swarm (Time: 9 min)

107 - Third Party Image Registries (Time: 1 min)

### Section 13 - Docker in Production (Index: 13)

108 - My DockerCon Talk on Docker and Swarm in Production (Time: 45 min)

Resource: Road to Production.pdf

109 - The Future of Swarm (Time: 0 min)

110 - Swarm Raft Quorum and Recovery (Laura Frank from DockerCon 2017) (Time: 0 min)

### Section 14 - The What and Why of Kubernetes (Index: 14)

111 - Kubernetes Intro (Time: 1 min)

Resource: Slides The What and Why of Kubernetes.pdf

112 - What Is Kubernetes (Time: 4 min)

Resource: History of Kubernetes

Resource: Kubernetes Home Page

113 - Why Kubernetes (Time: 7 min)

Resource: List of Certified Kubernetes Distributions

114 - Kubernetes vs Swarm (Time: 10 min)

### Section 15 - Kubernetes Architecture and Install (Index: 15)

115 - Section Intro (Time: 1 min)

Resource: Slides Kubernetes Architecture and Install.pdf

Resource: Section Commands and Links.pdf

116 - Kubernetes Architecture Terminology (Time: 9 min)

Resource: Kubernetes Components

117 - Kubernetes Local Install (Time: 8 min)

Resource: Minikube Download

Resource: MikroK8s for Linux Hosts

Resource: Install kubectl on Windows when you don't have Docker Desktop

Resource: Play-with-K8s in a Browser

Resource: Killercoda: K8s labs in your browser

118 - Kubernetes Container Abstractions (Time: 4 min)

Resource: Pod Overview (docs)

Resource: Service (docs)

Resource: Namespace (docs)

### Section 16 - Your First Pods (Index: 16)

119 - Kubectl run, create, and apply (Time: 3 min)

Resource: Slides Your First Pods.pdf

Resource: Section Commands and Links.pdf

Resource: Kubectl Reference (Docs)

120 - Your First Pod With kubectl run (Time: 9 min)

Resource: kubectl Cheat Sheet

Resource: kubectl for Docker Users

121 - Cheat Sheets for Kubectl (Time: 0 min)

122 - Your First Deployment With kubectl create (Time: 11 min)

Resource: kubectl create deployment (Docs)

Resource: Deployments (Docs)

123 - Scaling ReplicaSets (Time: 7 min)

Resource: ReplicaSets (Docs)

124 - 1.18 Changes to Kubectl Run (Time: 1 min)

### Section 17 - Inspecting Kubernetes Resources (Index: 17)

125 - Section Intro (Time: 1 min)

Resource: Slides Inspecting Kubernetes Resources.pdf

Resource: Commands and Links Inspecting Kubernetes Resources.pdf

126 - Inspecting Resources with Get (Time: 8 min)

127 - Inspecting Resources with Describe (Time: 9 min)

128 - Watching Resources (Time: 7 min)

129 - Container Logs in Kubernetes (Time: 9 min)

Resource: System Logs (Docs)

Resource: Logging Architecture (Docs)

Resource: Debug Running Pods (Docs)

Resource: Loki - Like Prometheus, but for logs

Resource: ELK Stack

Resource: Stern multi-pod log tailing

### Section 18 - Exposing Kubernetes Ports (Index: 18)

130 - Section Intro (Time: 1 min)

Resource: Slides Exposing Kubernetes Ports with Services.pdf

Resource: Commands and Links Exposing Kubernetes Ports.pdf

131 - Service Types (Time: 7 min)

Resource: Service (docs)

Resource: Service Types (docs tutorial)

132 - MicroK8s and DNS for Services (Time: 1 min)

133 - Creating a ClusterIP Service (Time: 5 min)

Resource: Using Services (docs tutorial)

134 - Running Netshoot in Kubernetes (Time: 2 min)

135 - Creating a NodePort and LoadBalancer Service (Time: 9 min)

Resource: NodePort (docs)

136 - Kubernetes Services DNS (Time: 5 min)

Resource: Kubernetes DNS Specification

Resource: CoreDNS for Kubernetes

### Section 19 - Kubernetes Management Techniques (Index: 19)

137 - Section Intro (Time: 1 min)

Resource: Slides Kubernetes Management Techniques.pdf

Resource: Commands and Links Kubernetes Management Techniques.pdf

138 - YAML Generators in kubectl Commands (Time: 8 min)

Resource: kubectl Usage Conventions (docs)

139 - Imperative vs. Declarative (Time: 7 min)

140 - Three Management Approaches (Time: 6 min)

Resource: Kubernetes Management Techniques (docs)

Resource: Imperative Command Examples (docs tutorial)

Resource: Imperative Config Files (doc tutorials)

Resource: Declarative Config Files

### Section 20 - Moving to Declarative Kubernetes YAML (Index: 20)

141 - Section Intro (Time: 1 min)

Resource: S16 Slides Moving to Declarative YAML.pdf

Resource: DM S16 (Moving to Declarative Kubernetes YAML).txt

142 - Kubectl apply (Time: 4 min)

Resource: Declarative Management of Kubernetes (Docs)

143 - Kubernetes Configuration YAML (Time: 6 min)

Resource: Understanding Kubernetes Objects and Spec's (Docs)

144 - Building Your YAML Files (Time: 7 min)

145 - Building Your YAML Spec (Time: 9 min)

Resource: Kubernetes API Reference (Docs)

146 - Dry Run CLI Changes (Time: 1 min)

147 - Dry Runs and Diff's (Time: 5 min)

Resource: APIServer dry-run and kubectl diff

148 - Labels and Label Selectors (Time: 8 min)

Resource: Label Selectors (Docs)

Resource: Difference Between Labels and Annotations

Resource: Recommended Labels (Docs)

Resource: Assigning Pods to Nodes (Docs)

Resource: Taints and Tolerations (Docs)

### Section 21 - Your Next Steps and The Future of Kubernetes (Index: 21)

149 - Section Intro (Time: 1 min)

Resource: S17 Slides Your Next Steps and The Future of Kubernetes.pdf

Resource: DM S17 (Your Next Steps, and the Future of Kubernetes).txt

150 - Storage in Kubernetes (Time: 6 min)

Resource: Volumes (Docs)

Resource: StatefulSets (Docs)

Resource: PersistentVolume (Docs)

151 - Ingress (Time: 4 min)

Resource: Ingress (Docs)

Resource: Ingress Controllers (Docs)

Resource: Set up Ingress on Minikube with the NGINX Ingress Controller (Docs)

Resource: Traefik Ingress

152 - CRD's and The Operator Pattern (Time: 4 min)

Resource: Custom Resources (Docs)

Resource: The Operator Pattern (Docs)

Resource: OperatorHub

Resource: Awesome Operators List

153 - Higher Deployment Abstractions (Time: 10 min)

Resource: Spreadsheet of Kubernetes Deployment Tools

Resource: Deploying Compose on Kubernetes

Resource: Introducing Kustomize

Resource: Kustomize (GitHub)

Resource: Docker App (GitHub)

Resource: CNAB spec

154 - Kubernetes Dashboard (Time: 3 min)

Resource: The Kubernetes Dashboard

155 - Namespaces and Context (Time: 5 min)

Resource: Configure Access to Multiple Clusters (Docs)

Resource: Namespaces (Docs)

156 - Future of Kubernetes (Time: 9 min)

Resource: Kubernetes Release Notes

### Section 22 - Automated CI Workflows (Index: 22)

157 - Section Intro: Automation (Time: 3 min)

158 - The Pull Request (Time: 7 min)

Resource: GitHub Flow

Resource: The DevOps Handbook

Resource: GitHub Flow in Docs

159 - Automation is the Glue of DevOps (Time: 4 min)

160 - Basic PR Workflow (Time: 2 min)

161 - Intermediate PR Workflow (Time: 2 min)

162 - Advanced PR Workflow (Time: 2 min)

### Section 23 - GitHub Actions Workflow Examples (Index: 23)

## Course ID: 4672206 - Redis: The Complete Developer's Guide

### Section 01 - Get Started Here! (Index: 1)

01 - Hello and Welcome! (Time: 1 min)

02 - Join Our Community! (Time: 0 min)

03 - Course Resources (Time: 1 min)

Resource: redis-diagrams.zip

04 - Why Use Redis? (Time: 4 min)

05 - Initial Setup (Time: 3 min)

06 - A Touch More Setup (Time: 5 min)

07 - Running RBook Locally (Time: 0 min)

### Section 02 - Commands for Adding and Querying Data (Index: 2)

08 - Basic Commands (Time: 4 min)

09 - Documentation on Commands (Time: 6 min)

10 - Variations of SET (Time: 5 min)

11 - Use Case of Expiration Options (Time: 7 min)

12 - Setting Multiple Keys (Time: 5 min)

13 - GET and MGET (Time: 1 min)

14 - String Ranges (Time: 4 min)

15 - Are These Commands Even Useful? (Time: 10 min)

16 - Dealing with Numbers (Time: 5 min)

17 - Again... Why do These Commands Exist? (Time: 9 min)

18 - Completed Notes (Time: 0 min)

Resource: Basic\_Strings\_-\_Completed.json

19 - Using a Completed Notebook (Time: 2 min)

20 - Exercises (Time: 0 min)

Resource: Strings\_Exercises.json

21 - A Few Exercises (Time: 1 min)

22 - Exercise Solutions (Time: 3 min)

### Section 03 - E-Commerce App Setup (Index: 3)

23 - E-Commerce App Source Code Download (Time: 0 min)

Resource: rbay.zip

24 - Don't Skip This Video (Time: 8 min)

25 - Redis Client Libraries (Time: 10 min)

26 - First Implementation Task (Time: 4 min)

27 - Redis Design Methodology (Time: 9 min)

28 - Key Naming Methodology (Time: 6 min)

29 - Adding Page Caching (Time: 7 min)

Resource: 29-adding.zip

30 - Better Key Generation (Time: 5 min)

Resource: 30-better.zip

### Section 04 - Local Redis Setup (Index: 4)

31 - Installing on MacOS (Time: 1 min)

32 - Installing on Windows (Time: 1 min)

### Section 05 - Hash Data Structures (Index: 5)

33 - Hashes in Redis (Time: 2 min)

34 - Storing and Retrieving Hashes (Time: 5 min)

35 - Deleting Hash Data (Time: 3 min)

36 - Numbers in Hashes (Time: 5 min)

37 - Completed Notes (Time: 0 min)

Resource: Hashes\_-\_Complete.json

### Section 06 - Redis Has Gotcha's! (Index: 6)

38 - Slightly Unpredictable HSET and HGETALL (Time: 4 min)

Resource: 001\_-\_codehashes.zip

39 - Issues with HSET (Time: 7 min)

Resource: 002\_-\_codehashes.zip

40 - Issues with HGETALL (Time: 6 min)

Resource: 003\_-\_codehashes.zip

### Section 07 - Powerful Design Patterns (Index: 7)

41 - App Overview (Time: 9 min)

42 - Reducing the Design to Queries (Time: 7 min)

43 - What Data Type for Each Resource (Time: 6 min)

44 - Create User Implementation (Time: 10 min)

Resource: 44-create-user.zip

45 - Serialization and Deserialization (Time: 11 min)

46 - Adding Serialize (Time: 1 min)

Resource: 46-adding-serialize.zip

47 - Fetching a User (Time: 4 min)

Resource: 47-fetching-user.zip

48 - Implementing Sessions (Time: 7 min)

49 - Fetching a Saved Session (Time: 7 min)

Resource: 49-fetching-saved.zip

50 - Creating Sessions (Time: 3 min)

Resource: 50-creating.zip

51 - Serializing Date Times (Time: 4 min)

52 - Storing Items (Time: 7 min)

53 - Fetching a Single Item (Time: 8 min)

Resource: 53-fetching.zip

### Section 08 - Pipelining Commands (Index: 8)

54 - Batching Commands with Pipelines (Time: 4 min)

55 - Running Multiple Commands at the Same Time (Time: 6 min)

Resource: 55-running.zip

56 - Executing a Pipeline (Time: 4 min)

Resource: 56-executing.zip

### Section 09 - Enforcing Uniqueness with Sets (Index: 9)

57 - Basics of Sets (Time: 4 min)

58 - Union of Sets (Time: 3 min)

59 - Intersection of Sets (Time: 1 min)

60 - Difference of Sets (Time: 2 min)

61 - Store Variations (Time: 2 min)

62 - Checking for an Element in a Set (Time: 2 min)

63 - Scanning a Set (Time: 5 min)

64 - Completed Notes (Time: 0 min)

Resource: Sets\_-\_Complete.json

65 - Most Common Use Cases of Sets (Time: 6 min)

### Section 10 - A Little Set Implementation (Index: 10)

66 - Requiring Unique User Names (Time: 6 min)

Resource: 66-requiring.zip

67 - Adding a Like System (Time: 5 min)

Resource: 67-adding.zip

68 - How to Count the Number of Likes? (Time: 6 min)

Resource: 68-how-to-count.zip

69 - Updating Like Quantities (Time: 5 min)

Resource: 69-updating.zip

70 - Showing Liked Items (Time: 3 min)

Resource: 70-showing-liked.zip

71 - Showing Common Liked Items (Time: 2 min)

Resource: 71-showing-common.zip

### Section 11 - Organizing Data with Sorted Sets (Index: 11)

72 - Sorted Sets (Time: 3 min)

73 - Adding and Removing Members (Time: 4 min)

74 - Finding a Range of Scores (Time: 5 min)

75 - Removing the Highest and Lowest Members (Time: 2 min)

76 - Updating Scores (Time: 2 min)

77 - Querying a Sorted Set (Time: 9 min)

78 - Completed Notes (Time: 0 min)

Resource: Sorted\_Sets\_-\_Complete.json

### Section 12 - Practice Time with Sorted Sets! (Index: 12)

79 - Sorted Set Use Cases (Time: 9 min)

80 - Reminder on the Auth Flow (Time: 5 min)

81 - Storing Usernames (Time: 4 min)

Resource: 81-storing.zip

82 - Kind of Storing Strings in Sorted Sets (Time: 3 min)

Resource: 82-kind-of.zip

83 - Converting User IDs (Time: 6 min)

Resource: 83-converting.zip

84 - Plan for Showing Most Viewed Items (Time: 5 min)

85 - Initializing Views on Item Creation (Time: 5 min)

Resource: 85-initializing.zip

86 - Incrementing View Counters (Time: 4 min)

Resource: 86-incrementing.zip

87 - Items by Ending Soonest (Time: 7 min)

Resource: 87-ending-soonest.zip

88 - Querying for Ending Soonest (Time: 11 min)

Resource: 88-querying.zip

### Section 13 - From Relational Data to Redis (Index: 13)

89 - Loading Relational Data (Time: 7 min)

Resource: 89-loading.zip

90 - Relational Data with SORT (Time: 5 min)

Resource: 90-relational-data.zip

91 - The Sort Command (Time: 6 min)

92 - Terminology Around Sort (Time: 8 min)

93 - Specifying the BY Argument (Time: 6 min)

94 - Joining Data with Sort (Time: 9 min)

95 - A Few More Arguments (Time: 9 min)

Resource: 95-few-more.zip

96 - Parsing SORT Output (Time: 8 min)

Resource: 96-parsing.zip

97 - Completed Notes (Time: 0 min)

Resource: Sort\_-\_Completed.json

### Section 14 - HyperLogLog Structures (Index: 14)

98 - HyperLogsLogs (Time: 5 min)

99 - When to use HyperLogsLogs (Time: 7 min)

100 - HyperLogsLogs in Action (Time: 5 min)

Resource: 100-hyperlogslogs.zip

### Section 15 - Storing Collections with Lists (Index: 15)

101 - Lists (Time: 3 min)

102 - Reading and Writing Data to a List (Time: 4 min)

103 - Ranges and Searches (Time: 6 min)

104 - Trimming Lists (Time: 5 min)

105 - Removing Elements (Time: 5 min)

106 - List Use Cases (Time: 10 min)

107 - Using Lists in Our App (Time: 4 min)

108 - Serializing and Deserializing Bids (Time: 6 min)

Resource: 108-serializing.zip

109 - Retrieving Bid Histories (Time: 13 min)

Resource: 109-retrieving.zip

### Section 16 - More Practice with the E-Commerce App (Index: 16)

110 - More on Bids (Time: 4 min)

111 - Validating Bids (Time: 5 min)

Resource: 111-validating.zip

112 - Updating Items with Bids (Time: 3 min)

Resource: 112-updating.zip

113 - Issues with Bids (Time: 4 min)

114 - Understanding Concurrency Issues (Time: 10 min)

115 - Applying Atomic Updates (Time: 8 min)

116 - Transactions (Time: 5 min)

117 - Watching a Key with Transactions (Time: 3 min)

118 - Isolated Connections for Transactions (Time: 4 min)

119 - Solving Multiple Bids with a Transaction (Time: 6 min)

Resource: 119-solving.zip

120 - Items by Price (Time: 5 min)

Resource: 120-items-by-price.zip

121 - More on Items by Price (Time: 3 min)

Resource: 121-more.zip

### Section 17 - Extending Redis with Scripting (Index: 17)

122 - Lua Scripting (Time: 3 min)

123 - Basics of Lua (Time: 6 min)

124 - Handling Arrays (Time: 3 min)

125 - Handling Tables (Time: 4 min)

126 - Loading and Executing Scripts (Time: 4 min)

127 - Providing Arguments (Time: 6 min)

128 - Providing Key lists (Time: 7 min)

129 - When to Use Scripts (Time: 4 min)

130 - Custom Scripts with Node-Redis (Time: 5 min)

131 - Lua Script Integration (Time: 12 min)

132 - Creating a View-Incrementing Script (Time: 20 min)

Resource: 132-creating.zip

133 - Code Cleanup (Time: 0 min)

Resource: 133-cleanup.zip

### Section 18 - Understanding and Solving Concurrency Issues (Index: 18)

134 - Concurrency Revisited (Time: 8 min)

135 - Issues with WATCH (Time: 5 min)

136 - Overview of a Lock (Time: 6 min)

137 - Understanding the Goal (Time: 4 min)

Resource: 137-understanding.zip

138 - Implementing WithLock (Time: 10 min)

Resource: 005\_-\_cc.zip

139 - Using WithLock (Time: 3 min)

Resource: 139-withlock.zip

140 - It Works! (Time: 3 min)

Resource: 140-it-works.zip

141 - Automatically Expiring Locks (Time: 8 min)

Resource: 141-automatically.zip

142 - Another Lock Issue (Time: 8 min)

143 - Solving Accidental Unlocks (Time: 3 min)

144 - Adding an Unlock Script (Time: 5 min)

Resource: 144-adding-unlock.zip

145 - One Last Issue (Time: 4 min)

146 - Providing Expiration Signals (Time: 6 min)

Resource: 146-providing.zip

147 - Alternate Expiration Solution (Time: 7 min)

Resource: 147-alternate.zip

### Section 19 - Querying Data with RediSearch (Index: 19)

148 - Redis Modules (Time: 3 min)

149 - Redis Core vs Redis Stack (Time: 2 min)

150 - Using Modules in Production (Time: 6 min)

151 - Overview on Search (Time: 4 min)

152 - Creating and Using an Index (Time: 7 min)

153 - Details on Indexes (Time: 8 min)

154 - Index Field Types (Time: 6 min)

155 - Numeric Queries (Time: 6 min)

156 - Tag Queries (Time: 3 min)

157 - Text Queries (Time: 5 min)

158 - Fuzzy Search (Time: 3 min)

159 - Prefix Search (Time: 2 min)

160 - Pre-Processing Search Criteria (Time: 5 min)

### Section 20 - Search in Action (Index: 20)

161 - Search Implementation (Time: 5 min)

Resource: 161-search.zip

162 - The Create Index Function (Time: 4 min)

Resource: 162-create-index.zip

163 - When to Create the Index? (Time: 5 min)

Resource: 163-when.zip

164 - Parsing the Search Term (Time: 6 min)

Resource: 164-parsing.zip

165 - Executing the Search (Time: 7 min)

Resource: 165-executing.zip

166 - Seeding Some Fake Data (Time: 3 min)

Resource: 166-seeding.zip

167 - RediSearch and TF-IDF (Time: 7 min)

168 - Applying Weights to Fields (Time: 6 min)

Resource: 168-applying.zip

169 - Understanding Queries with EXPLAIN (Time: 5 min)

170 - Query Performance with PROFILE (Time: 3 min)

171 - Sorting and Searching (Time: 4 min)

172 - Updating an Existing Index (Time: 5 min)

Resource: 172-updating.zip

173 - Executing the Search (Time: 7 min)

Resource: 173-executing.zip

174 - Deserializing Search Results (Time: 3 min)

Resource: 174-deserializing.zip

### Section 21 - Service Communication with Streams (Index: 21)

175 - Streams (Time: 2 min)

176 - Use Case of Streams (Time: 7 min)

177 - Adding Messages to a Stream (Time: 3 min)

## Course ID: 3980730 - MySQL High Performance Tuning Guide

### Section 01 - MySQL Architecture (Index: 1)

01 - Query Execution Basics (Time: 2 min)

02 - Utility Layer (Time: 3 min)

03 - SQL Layer (Time: 4 min)

04 - Storage Engine Layer (Time: 2 min)

05 - Conclusions (Time: 0 min)

### Section 02 - Spotting Query Problems (Index: 2)

06 - Example Databases (Time: 1 min)

Resource: Example Databases

Resource: world.sql.zip

Resource: sakila-db.zip

07 - Making use of Performance Schema (Time: 4 min)

Resource: perf\_schema.sql

08 - Top 10 Time-Consuming Queries (Time: 4 min)

Resource: top\_10\_time\_consuming\_queries.sql

09 - Why Are Queries Slow? (Time: 1 min)

10 - Finding Candidate Queries for Optimization (Time: 3 min)

Resource: cand\_query\_optimization.sql

11 - Table I/O and File I/O for Selects (Time: 2 min)

Resource: IO\_Selects.sql

12 - Table I/O and File I/O for Updates and Deletes (Time: 4 min)

Resource: IO\_Updates.sql

13 - The Error Summary Tables (Time: 2 min)

Resource: error\_summary.sql

14 - Conclusions (Time: 1 min)

### Section 03 - Analyzing Queries (Index: 3)

15 - How does the Optimiser work? (Time: 2 min)

16 - EXPLAIN basics (Time: 2 min)

17 - Example 1: Single Table, Table Scan (Time: 3 min)

18 - EXPLAIN ANALYZE (Time: 1 min)

19 - Example 2: Single Table, Index Access (Time: 1 min)

20 - Example 3: Multicolumn Index (Time: 1 min)

21 - Example 4: Two Tables With Subquery And Sorting (Time: 2 min)

22 - Spotting jumps in runtime (Time: 5 min)

23 - Hot and cold cache behaviour (Time: 1 min)

24 - Conclusions (Time: 1 min)

### Section 04 - The Clustered Index and Choosing the Primary Key (Index: 4)

25 - Section Overview (Time: 1 min)

26 - The Clustered Indexes (Time: 1 min)

27 - Choosing a Good Primary Key (Time: 4 min)

28 - Use Case: Inserting rows in primary key order with InnoDB (Time: 5 min)

Resource: choosing\_primary\_key.sql

Resource: choosing\_primary\_key.py

29 - Optimal Primary Key in Practice (Time: 2 min)

### Section 05 - Indexing for Performance (Index: 5)

30 - Introduction (Time: 5 min)

31 - Why add a Secondary Index? (Time: 4 min)

Resource: secondary\_indexes.sql

32 - When should you Add or Remove Indexes? (Time: 2 min)

33 - Why Index Statistics are Important? (Time: 2 min)

34 - How to help MySQL make better decisions? (Time: 4 min)

35 - Covering Indexes (Time: 4 min)

Resource: covering\_indexes.sql

### Section 06 - MySQL Composite Index (Index: 6)

36 - Motivation (Time: 2 min)

37 - Columns Order (Time: 2 min)

38 - Composite Index Hands-on (Time: 5 min)

Resource: composite\_indexes.sql

Resource: composite\_indexes.py

39 - Using Redundant Indexes (Time: 5 min)

40 - Composite Indexes Extra Remarks (Time: 2 min)

41 - Conclusions (Time: 0 min)

### Section 07 - MySQL Configuration (Index: 7)

42 - Configuration Best Practices (Time: 5 min)

43 - InnoDB Overview (Time: 3 min)

44 - Adjusting the Buffer Pool Size (Time: 4 min)

Resource: buffer\_pool\_size.sql

45 - Adding more Buffer Pool Instances (Time: 2 min)

46 - Why Dumping the Buffer Pool? (Time: 1 min)

47 - Tuning Flushing Pages Process (Time: 3 min)

Resource: io\_capacity\_flushing\_pages.sql

48 - Tuning Redo Log Buffer (Time: 2 min)

49 - Tuning Redo Log Files (Time: 3 min)

Resource: redo\_logs\_configurations.sql

50 - Parallel Query Execution (Time: 1 min)

Resource: parallel\_query\_execution.sql

51 - Adjusting the Query Buffers (Time: 2 min)

52 - Conclusions (Time: 1 min)

### Section 08 - MySQL Transactions and Locks (Index: 8)

53 - Impact of Transactions (Time: 1 min)

54 - Managing Locks (Time: 4 min)

55 - Purpose of Undo Logs (Time: 2 min)

56 - Reduce Locking - Transaction size and age (Time: 2 min)

57 - Reduce Locking - Indexes (Time: 2 min)

58 - Reduce Locking - Transaction Isolation Levels (Time: 4 min)

59 - Monitoring Transactions (Time: 2 min)

60 - Monitoring Locks (Time: 1 min)

61 - Conclusions (Time: 1 min)

### Section 09 - Fundamental Concepts for Scaling MySQL (Index: 9)

62 - Scaling MySQL Intro (Time: 1 min)

63 - Read Versus Write Loads (Time: 2 min)

64 - Replication - Scaling Reads with Read Pools (Time: 4 min)

65 - Replication - Service Discovery for Read Pools (Time: 2 min)

66 - Queuing (Time: 3 min)

67 - Sharding Introduction (Time: 3 min)

68 - Sharding Concerns (Time: 4 min)

69 - How to Partition Data in MySQL (Time: 3 min)

70 - Multiple Partitioning Keys (Time: 2 min)

71 - Querying Across Shards (Time: 1 min)

### Section 10 - Bonus Section (Index: 10)

72 - Bonus Learning Material (Time: 0 min)

## Course ID: 5684142 - Complete Algorithmic Trading Course with Python, ChatGPT, ML

### Section 01 - IMPORTANT NOTE (DO NOT SKIP) (Index: 1)

01 - How to navigate the course during revamp? (Time: 4 min)

### Section 02 - Day 1 - Course introduction lecture (DO NOT SKIP) (Index: 2)

02 - Course introduction (Time: 11 min)

Resource: Day\_1\_Slides.pdf

### Section 03 - Day 2 - Python Essentials lecture and quiz (2025 version) (Index: 3)

03 - Stocks, candlesticks, introduction to QuantConnect and Python Tutor (Time: 16 min)

Resource: Day\_2\_Example\_1.txt

Resource: Day\_2\_Example\_2.txt

Resource: Day\_2\_Slides.pdf

### Section 04 - Day 3 - Python Essentials lecture and quiz (2025 version) (Index: 4)

04 - Basic object types and variables (Time: 15 min)

Resource: Day\_3\_Slides.pdf

### Section 05 - Day 4 - Python Essentials lecture and quiz (2025 version) (Index: 5)

05 - print(), methods and functions, how to manipulate strings (Time: 20 min)

Resource: Day\_4\_Example\_1.txt

Resource: Day\_4\_Example\_2.txt

Resource: Day\_4\_Example\_3.txt

Resource: Day\_4\_Example\_4.txt

Resource: Day\_4\_Example\_5.txt

Resource: Day\_4\_Slides.pdf

### Section 06 - Day 5 - Python Essentials lecture and quiz (2025 version) (Index: 6)

06 - Iterable objects, indexing and slicing (Time: 21 min)

Resource: Day\_5\_Example\_1.txt

Resource: Day\_5\_Example\_2.txt

Resource: Day\_5\_Example\_3.txt

Resource: Day\_5\_Example\_4.txt

Resource: Day\_5\_Example\_6.txt

Resource: Day\_5\_Example\_7.txt

Resource: Day\_5\_Example\_8.txt

Resource: Day\_5\_Slides.pdf

### Section 07 - Day 6 - Homework for Day 1 to Day 5 (2025 version) (Index: 7)

### Section 08 - Day 7 - Python Essentials lecture and quiz (2025 version) (Index: 8)

07 - Math operators, functions used on integers and floats, operator precedence (Time: 15 min)

Resource: Day\_7\_Example\_1.txt

Resource: Day\_7\_Example\_2.txt

Resource: Day\_7\_Example\_3.txt

Resource: Day\_7\_Example\_4.txt

Resource: Day\_7\_Example\_5.txt

Resource: Day\_7\_Example\_6.txt

Resource: Day\_7\_Slides.pdf

### Section 09 - Day 8 - Python Essentials lecture and quiz (2025 version) (Index: 9)

08 - Conditional statements, comparison operators, or logical operator (Time: 20 min)

Resource: Day\_8\_Example\_1.txt

Resource: Day\_8\_Example\_2.txt

Resource: Day\_8\_Example\_3.txt

Resource: Day\_8\_Example\_4.txt

Resource: Day\_8\_Example\_5.txt

Resource: Day\_8\_Example\_6.txt

Resource: Day\_8\_Example\_7.txt

Resource: Day\_8\_Example\_8.txt

Resource: Day\_8\_Example\_9.txt

Resource: Day\_8\_Example\_10.txt

Resource: Day\_8\_Slides.pdf

### Section 10 - Day 9 - Homework for Day 7 and Day 8 (Index: 10)

### Section 11 - Day 10 - Python Essentials lecture and quiz (2025 version) (Index: 11)

09 - Code comments and empty lines, how to work with lists, ChatGPT for slicing lists (Time: 19 min)

Resource: Day\_10\_Example\_1.txt

Resource: Day\_10\_Example\_2.txt

Resource: Day\_10\_Example\_3.txt

Resource: Day\_10\_Example\_4.txt

Resource: Day\_10\_Example\_5.txt

Resource: Day\_10\_Example\_6.txt

Resource: Day\_10\_Example\_7.txt

Resource: Day\_10\_Example\_8.txt

Resource: Day\_10\_Example\_9.txt

Resource: Day\_10\_Example\_10.txt

Resource: Day\_10\_Example\_11.txt

Resource: Day\_10\_Slides.pdf

### Section 12 - Day 11 - Python Essentials lecture and quiz (2025 version) (Index: 12)

10 - for loops on lists (Time: 20 min)

Resource: Day\_11\_Example\_1.txt

Resource: Day\_11\_Example\_2.txt

Resource: Day\_11\_Example\_3.txt

Resource: Day\_11\_Example\_4.txt

Resource: Day\_11\_Example\_5.txt

Resource: Day\_11\_Example\_6.txt

Resource: Day\_11\_Example\_7.txt

Resource: Day\_11\_Example\_8.txt

Resource: Day\_11\_Slides.pdf

### Section 13 - Day 12 - Homework for Day 10 and Day 11 (2025 version) (Index: 13)

### Section 14 - Day 13 - Python Essentials lecture and quiz (2025 version) (Index: 14)

11 - How to work with dictionaries, ChatGPT for sorting dictionaries (Time: 20 min)

Resource: Day\_13\_Example\_1.txt

Resource: Day\_13\_Example\_2.txt

Resource: Day\_13\_Example\_3.txt

Resource: Day\_13\_Example\_4.txt

Resource: Day\_13\_Example\_5.txt

Resource: Day\_13\_Example\_6.txt

Resource: Day\_13\_Example\_7.txt

Resource: Day\_13\_Example\_8.txt

Resource: Day\_13\_Example\_9.txt

Resource: Day\_13\_Slides.pdf

### Section 15 - Day 14 - Homework for Day 13 (2025 version) (Index: 15)

### Section 16 - Day 15 - Python Essentials lecture and quiz (2025 version) (Index: 16)

12 - What are functions and how to create them (Time: 13 min)

Resource: Day\_15\_Example\_1.txt

Resource: Day\_15\_Example\_2.txt

Resource: Day\_15\_Example\_3.txt

Resource: Day\_15\_Example\_4.txt

Resource: Day\_15\_Example\_5.txt

Resource: Day\_15\_Example\_6.txt

Resource: Day\_15\_Slides.pdf

### Section 17 - Day 16 - Python Essentials lecture and quiz (2025 version) (Index: 17)

13 - What is an object and how to create objects (Time: 13 min)

Resource: Day\_16\_Example\_1.txt

Resource: Day\_16\_Example\_2.txt

Resource: Day\_16\_Example\_3.txt

Resource: Day\_16\_Example\_4.txt

Resource: Day\_16\_Example\_5.txt

Resource: Day\_16\_Example\_6.txt

Resource: Day\_16\_Example\_7.txt

Resource: Day\_16\_Slides.pdf

### Section 18 - Day 17 - Homework for Day 15 and Day 16 (2025 version) (Index: 18)

### Section 19 - Day 18 - Python Essentials lecture and quiz (2025 version) (Index: 19)

14 - Tuples, QuantConnect Research Notebook and statistics library (Time: 9 min)

Resource: Day\_18\_Example\_1.txt

Resource: Day\_18\_Example\_2.txt

Resource: Day\_18\_Example\_3.txt

Resource: Day\_18\_Example\_4.txt

Resource: Day\_18\_Example\_5.txt

Resource: Day\_18\_Slides.pdf

### Section 20 - Day 19 - Python Essentials lecture and quiz (2025 version) (Index: 20)

15 - datetime library (Time: 12 min)

Resource: Day\_19\_Example\_1.txt

Resource: Day\_19\_Example\_2.txt

Resource: Day\_19\_Example\_3.txt

Resource: Day\_19\_Example\_4.txt

Resource: Day\_19\_Example\_5.txt

Resource: Day\_19\_Slides.pdf

### Section 21 - Day 20 - Python Essentials lecture and quiz (2025 version) (Index: 21)

16 - pandas library and QuantConnect's historical data (Part 1) (Time: 20 min)

Resource: Day\_20\_Example\_1.txt

Resource: Day\_20\_Example\_2.txt

Resource: Day\_20\_Example\_3.txt

Resource: Day\_20\_Example\_4.txt

Resource: Day\_20\_Example\_5.txt

Resource: Day\_20\_Example\_6.txt

Resource: Day\_20\_Example\_7.txt

Resource: Day\_20\_Example\_8.txt

Resource: Day\_20\_Example\_9.txt

Resource: Day\_20\_Slides.pdf

### Section 22 - Day 21 - Python Essentials lecture and quiz (2025 version) (Index: 22)

17 - QuantConnect's historical data (Part 2) and how to code indicators with ChatGPT (Time: 22 min)

Resource: Day\_21\_Example\_1.txt

Resource: Day\_21\_Example\_2.txt

Resource: Day\_21\_Example\_3.txt

Resource: Day\_21\_Example\_4.txt

Resource: Day\_21\_Example\_5.txt

Resource: Day\_21\_Example\_6.txt

Resource: Day\_21\_Example\_7.txt

Resource: Day\_21\_Example\_8.txt

Resource: Day\_21\_Slides.pdf

### Section 23 - Day 22 - Python Essentials lecture and quiz (2025 version) (Index: 23)

18 - What is machine learning and how to create features (Time: 13 min)

Resource: Day\_22\_Example\_1.txt

Resource: Day\_22\_Slides.pdf

### Section 24 - Day 23 - Python Essentials lecture and quiz (2025 version) (Index: 24)

19 - Machine Learning: Random Forest and deployment (Time: 17 min)

Resource: Day\_23\_Example\_1.txt

Resource: Day\_23\_Example\_2\_Base.txt

Resource: Day\_23\_Example\_2\_Final.txt

Resource: Day\_23\_Slides.pdf

### Section 25 - Day 24 - Python Essentials lecture and quiz (2025 version) (Index: 25)

20 - Machine Learning: XGBoost and deployment (Time: 22 min)

Resource: Day\_24\_Example\_1.txt

Resource: Day\_24\_Example\_2.txt

Resource: Day\_24\_Example\_3.txt

Resource: Day\_24\_Example\_4.txt

Resource: Day\_24\_Slides.pdf

### Section 26 - Day 25 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 26)

21 - Critical knowledge about stocks (Time: 12 min)

Resource: Day\_25\_Slides.pdf

### Section 27 - Day 26 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 27)

22 - Introduction to QuantConnect (Time: 14 min)

Resource: Day\_26\_Example\_1.txt

Resource: Day\_26\_Slides.pdf

### Section 28 - Day 27 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 28)

23 - Common errors when coding trading bots on QuantConnect (Time: 13 min)

Resource: Day\_27\_Example\_1.txt

Resource: Day\_27\_Example\_2.txt

Resource: Day\_27\_Example\_3.txt

Resource: Day\_27\_Example\_4\_BEFORE.txt

Resource: Day\_27\_Example\_4\_AFTER.txt

Resource: Day\_27\_Slides.pdf

### Section 29 - Day 28 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 29)

24 - initialize method and how to access data during backtesting and live trading (Time: 16 min)

Resource: Day\_28\_Example\_1.txt

Resource: Day\_28\_Example\_2.txt

Resource: Day\_28\_Example\_3.txt

Resource: Day\_28\_Slides.pdf

### Section 30 - Day 29 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 30)

25 - Order management (Part 1) (Time: 13 min)

Resource: Day\_29\_Example\_1.txt

Resource: Day\_29\_Example\_2.txt

Resource: Day\_29\_Example\_3.txt

Resource: Day\_29\_Example\_4.txt

Resource: Day\_29\_Slides.pdf

### Section 31 - Day 30 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 31)

26 - Order management (Part 2) (Time: 14 min)

Resource: Day\_30\_Example\_1.txt

Resource: Day\_30\_Example\_2.txt

Resource: Day\_30\_Example\_3.txt

Resource: Day\_30\_Slides.pdf

### Section 32 - Day 31 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 32)

27 - Order management (Part 3) (Time: 17 min)

### Section 33 - Day 32 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 33)

28 - Risk management (Time: 16 min)

Resource: Day\_32\_Example\_1.txt

Resource: Day\_32\_Example\_2.txt

Resource: Day\_32\_Example\_3.txt

Resource: Day\_32\_Slides.pdf

### Section 34 - Day 33 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 34)

29 - Scheduled events (Part 1) (Time: 14 min)

Resource: Day\_33\_Example\_1.txt

Resource: Day\_33\_Slides.pdf

### Section 35 - Day 34 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 35)

30 - Scheduled events (Part 2) (Time: 13 min)

Resource: Day\_34\_Example\_1.txt

Resource: Day\_34\_Example\_2.txt

Resource: Day\_34\_Example\_3.txt

Resource: Day\_34\_Slides.pdf

### Section 36 - Day 35 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 36)

31 - How to access historical data in backtesting and live trading algorithm (Time: 13 min)

Resource: Day\_35\_Example\_1.txt

Resource: Day\_35\_Example\_2.txt

Resource: Day\_35\_Example\_3.txt

Resource: Day\_35\_Slides.pdf

### Section 37 - Day 36 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 37)

32 - Consolidating data (Part 1) (Time: 12 min)

Resource: Day\_36\_Example\_1.txt

Resource: Day\_36\_Example\_2.txt

Resource: Day\_36\_Example\_3.txt

Resource: Day\_36\_Slides.pdf

### Section 38 - Day 37 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 38)

33 - Consolidating data (Part 2) (Time: 22 min)

Resource: Day\_37\_Example\_1.txt

Resource: Day\_37\_Example\_2.txt

Resource: Day\_37\_Example\_3\_Base.txt

Resource: Day\_37\_Example\_3\_Final.txt

Resource: Day\_37\_Slides.pdf

### Section 39 - Day 38 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 39)

34 - Consolidating data (Part 3) (Time: 16 min)

Resource: Day\_38\_Example\_1.txt

Resource: Day\_38\_Example\_2.txt

Resource: Day\_38\_Example\_3.txt

Resource: Day\_38\_Example\_4.txt

Resource: Day\_38\_Slides.pdf

### Section 40 - Day 39 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 40)

35 - Indicators (Part 1) (Time: 20 min)

Resource: Day\_39\_Example\_1.txt

Resource: Day\_39\_Example\_2.txt

Resource: Day\_39\_Example\_3.txt

Resource: Day\_39\_Example\_4.txt

Resource: Day\_39\_Slides.pdf

### Section 41 - Day 40 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 41)

36 - Indicators (Part 2) (Time: 14 min)

Resource: Day\_40\_Example\_1.txt

Resource: Day\_40\_Example\_2.txt

Resource: Day\_40\_Slides.pdf

### Section 42 - Day 41 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 42)

37 - Indicators (Part 3) (Time: 9 min)

Resource: Day\_41\_Example\_1.txt

Resource: Day\_41\_Example\_2.txt

Resource: Day\_41\_Example\_3.txt

Resource: Day\_41\_Slides.pdf

### Section 43 - Day 42 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 43)

38 - Universe selection (Part 1) (Time: 24 min)

Resource: Day\_42\_Example\_1.txt

Resource: Day\_42\_Example\_2.txt

Resource: Day\_42\_Slides.pdf

### Section 44 - Day 43 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 44)

39 - Universe selection (Part 2) (Time: 12 min)

Resource: Day\_43\_Example\_1.txt

Resource: Day\_43\_Example\_2.txt

Resource: Day\_43\_Slides.pdf

### Section 45 - Day 44 - QuantConnect Essentials lecture and quiz (2025 version) (Index: 45)

40 - Universe selection (Part 3) (Time: 18 min)

Resource: Day\_44\_Example\_1.txt

Resource: Day\_44\_Example\_2.txt

Resource: Day\_44\_Example\_3.txt

Resource: Day\_44\_Slides.pdf

### Section 46 - QuantConnect essentials: Universe selection (2024 version) (Index: 46)

41 - Introduction (Time: 10 min)

Resource: QuantConnect essentials Universe selection PPT.pptx

42 - Example 1: Filter down penny stocks (Time: 13 min)

Resource: Example 1.txt

43 - Example 2: Filter stocks of companies that operate in the semiconductor industry (Time: 6 min)

Resource: Example 2.txt

44 - Example 3: Filter based on revenue growth (Time: 2 min)

Resource: Example 3.txt

45 - Example 4: Filter top 5 companies in terms of revenue growth (Time: 6 min)

Resource: Example 4.txt

46 - Example 5: Filter stocks (current daily closing $ > daily closing $ 15 days ago) (Time: 6 min)

Resource: Example 5.txt

47 - Example 6: Using 200-EMA to filter stocks (Time: 2 min)

Resource: Example 6.txt

48 - Example 7: Create SMA indicators for stocks entering the trading bot (Time: 4 min)

Resource: Example 7.txt

49 - Example 8: Updating indicators with consolidated data (Time: 5 min)

Resource: Example 8.txt

50 - Example 9: Ensure that AAPL, TSLA and SPY get filtered down (Time: 2 min)

Resource: Example 9.txt

51 - Example 10: Adjust universe settings (Time: 2 min)

Resource: Example 10.txt

52 - Example 11: Schedule universe selection to happen only on Sunday (Time: 4 min)

Resource: Example 11.txt

53 - Example 12: Universe selection with trading logic (Time: 6 min)

Resource: Example 12.txt

54 - Important things to remember about universe selection (Time: 2 min)

### Section 47 - QuantConnect essentials: Alternative data (2024 version) (Index: 47)

55 - Introduction (Time: 4 min)

Resource: QuantConnect essentials Alternative data PPT.pptx

56 - Example 1: Tiingo news with 1 stock (Time: 16 min)

Resource: Example 1.txt

57 - Example 2: Tiingo news with universe selection (Time: 12 min)

Resource: Example 2.txt

### Section 48 - QuantConnect essentials: Coding your idea (2024 version) (Index: 48)

58 - Introduction (Time: 3 min)

Resource: QuantConnect essentials Coding your idea PPT.pptx

59 - Example 1: Momentum trading strategy (Time: 18 min)

Resource: Example 1.txt

### Section 49 - QuantConnect essentials: Interpreting backtest results (2024 version) (Index: 49)

60 - Introduction (Time: 5 min)

Resource: QuantConnect essentials Interpreting backtest results PPT.pptx

61 - My recommendation (Time: 1 min)

### Section 50 - QuantConnect essentials: Tips & common mistakes (2024 version) (Index: 50)

62 - Introduction (Time: 0 min)

Resource: QuantConnect essentials Tips & common mistakes PPT.pptx

63 - Tips (Time: 1 min)

64 - Common mistakes (Time: 3 min)

### Section 51 - QuantConnect essentials: Live trading (2024 version) (Index: 51)

65 - Introduction (Time: 3 min)

Resource: QuantConnect essentials Live trading PPT.pptx

66 - Launch a trading bot for live trading (Time: 10 min)

### Section 52 - QuantConnect essentials: Live trading notifications (2024 version) (Index: 52)

67 - Introduction (Time: 1 min)

Resource: QuantConnect essentials Live trading notifications PPT.pptx

68 - Example 1: Send email and sms notifications when order submitted (Time: 2 min)

Resource: Example 1.txt

### Section 53 - QuantConnect essentials: Interactive Brokers (2024 version) (Index: 53)

69 - Introduction (Time: 0 min)

Resource: QuantConnect essentials Interactive Brokers PPT.pptx

70 - Important points about Interactive Brokers (Time: 8 min)

71 - Conclusion (Time: 0 min)

### Section 54 - Bonus chapter: Options (2024 version) (Index: 54)

72 - Introduction (Time: 9 min)

Resource: Bonus chapter Options PPT.pptx

73 - Example 1: Request for options (Time: 10 min)

Resource: Example 1.txt

74 - Example 2: Filter option contracts (Time: 12 min)

Resource: Example 2.txt

75 - Example 3: Access attributes of individual option contracts (Time: 13 min)

Resource: Example 3.txt

## Course ID: 4668148 - Managing Options Positions in plain English

### Section 01 - The Life of an Option (Index: 1)

01 - The Life of an Option (Time: 5 min)

Resource: The life of an Option.pdf

02 - Requirements to start trading Options (Time: 3 min)

Resource: Requirements to start trading Options.pdf

03 - Exercise and Assignment (Time: 21 min)

### Section 02 - Options Positions, Trades and Legs (Index: 2)

04 - Options Positions, Trades and Legs (Time: 9 min)

Resource: Options Positions, Trades and Legs.pdf

### Section 03 - Describing Options Positions and their components (Index: 3)

05 - Describing Options Positions and their components (Time: 4 min)

Resource: Describing Options Positions and their components.pdf

06 - Buy and Sell to Open vs Buy and Sell to Close (Time: 2 min)

Resource: Buy and Sell to Open vs Buy and Sell to Close.pdf

### Section 04 - Defining Adjustment Trades (Index: 4)

07 - What are Adjustment Trades? (Time: 2 min)

Resource: What are Adjustment Trades.pdf

08 - Adding a leg (Time: 3 min)

Resource: Adding a leg.pdf

09 - Removing a leg (Time: 2 min)

Resource: Removing a leg.pdf

10 - Rolling up (Time: 2 min)

Resource: Rolling up.pdf

11 - Rolling down (Time: 2 min)

Resource: Rolling down.pdf

12 - Rolling out (Time: 2 min)

Resource: Rolling out.pdf

13 - Rolling up and out (Time: 2 min)

Resource: Rolling up and out.pdf

14 - Rolling down and out (Time: 1 min)

Resource: Rolling down and out.pdf

15 - Summary of all Adjustment Trades (Time: 1 min)

Resource: Summary of all Adjustment Trades.pdf

### Section 05 - Running Totals and Equivalent Position (Index: 5)

16 - Accounting for Adjustments: Running Totals (Time: 8 min)

Resource: Accounting for Adjustments. Running totals.pdf

### Section 06 - Managing an Options Position over Time: Pepsico (Index: 6)

17 - Initial Trade: Selling a Call (Time: 5 min)

Resource: Initial Trade. Selling a Call.pdf

18 - Adding a Short Put and turning it into a Strangle (Time: 3 min)

Resource: Adding a short Put and turning it into a Strangle.pdf

19 - Rolling up the Short Put into a Straddle (Time: 3 min)

Resource: Rolling up the short Put into a Straddle.pdf

20 - Rolling out the Straddle (Time: 2 min)

Resource: Rolling out the Straddle.pdf

21 - Final Trade: Closing out the Straddle (Time: 2 min)

Resource: Final Trade. Closing out the Straddle.pdf

### Section 07 - Monitoring Profits and Losses: Open P/L and Realized P/L (Index: 7)

22 - Why you need to monitor your Options Positions' P/L (Time: 1 min)

Resource: Why you need to monitor your Options Positions PL.pdf

23 - Trading McDonald's: Initial Trade - Selling a Put (Time: 2 min)

Resource: Trading McDonalds - Initial Trade - Selling a Put.pdf

24 - Trading McDonald's: Rolling out the short Put (Time: 4 min)

Resource: Trading McDonalds - Rolling out the short Put.pdf

25 - Trading McDonald's: Closing out the short Put (Time: 2 min)

Resource: Trading McDonalds - Closing out the short Put.pdf

26 - Open P/L and Realized P/L (Time: 3 min)

Resource: Open PL and Realized PL.pdf

27 - Full Trade Analysis: Options Position in McDonald's (Time: 5 min)

Resource: Full Trade Analysis - Options Position in McDonalds.pdf

### Section 08 - Reasons to adjust Options Positions (Index: 8)

28 - Reasons to adjust Options Positions (Time: 5 min)

Resource: Reasons to adjust Options Positions.pdf

### Section 09 - Differences between current P/L and P/L at expiration for Options Strategies (Index: 9)

29 - Differences between current P/L and P/L at expiration for Options Strategies (Time: 2 min)

Resource: Differences between current PL and PL at expiration for Options Strategies.pdf

30 - Understanding Intrinsic and Extrinsic Values (Time: 8 min)

Resource: Understanding Intrinsic and Extrinsic values.pdf

31 - Dissecting Current and Expiration P/L lines for Options Strategies (Time: 7 min)

Resource: Dissecting Current and Expiration PL lines for Options Strategies.pdf

32 - Analyzing 29 Options Strategies and their Current and Expiration P/L lines (Time: 7 min)

Resource: Analyzing 29 Options Strategies and their Current and Expiration PL lines.pdf

### Section 10 - Trading the Wheel (Index: 10)

33 - Trading the Wheel: Introduction (Time: 4 min)

34 - Trading the Wheel: Mechanics (Time: 7 min)

35 - Trading the Wheel: Example (Time: 10 min)

## Course ID: 4595938 - Computer Architecture and Computer Organization Masterclass

### Section 01 - Welcome to Your Course (Index: 1)

01 - Hello Everyone. Get to know your course structure (Time: 6 min)

Resource: Course Outline.pdf

### Section 02 - Introduction to Computer Organization and Architecture (Index: 2)

02 - Introduction to Computer Organization and Architecture (Time: 5 min)

03 - Computer Level Hierarchy (Time: 23 min)

04 - Introduction to Computer Organization and Architecture Lecture Materials (Time: 0 min)

Resource: 1.pdf

Resource: 2.1.pdf

### Section 03 - Fetch - Decode - Execute Cycle (Index: 3)

05 - Fetch Decode Execute Cycle Explained Part 1 (Time: 14 min)

06 - Fetch Decode Execute Cycle Explained Part 2 (Time: 15 min)

07 - Fetch - Decode - Execute Cycle Lecture Materials (Time: 0 min)

Resource: 2.2.pdf

### Section 04 - Assembly Language Programming with the Little Man Computer (Index: 4)

08 - What is the Little Man Computer (Time: 2 min)

09 - Programming the Little Man Computer (Time: 14 min)

10 - Fetch Decode Execute Cycle Explained using the Little Man Computer (Time: 13 min)

11 - Writing Assembly Language Code (Time: 3 min)

### Section 05 - Instruction Set Architecture (ISA) (Index: 5)

12 - Introduction to ISA (Time: 9 min)

13 - CISC and RISC (Time: 18 min)

Resource: Additional Resource: What is RISC-V?

14 - Instructions (Time: 4 min)

15 - Number of Addressing (Time: 9 min)

16 - Addressing Modes (Time: 36 min)

17 - Instruction Set Architecture Lecture Materials (Time: 0 min)

Resource: 4.pdf

### Section 06 - CPU Benchmarking (Index: 6)

18 - Introduction to CPU Benchmarking (Time: 13 min)

19 - Calculating CPU Time (Time: 19 min)

20 - Understanding CPU Clock (Time: 9 min)

21 - Calculating CPU Time (Time: 18 min)

22 - Exercise - Solving CPU Time Calculations (Time: 3 min)

23 - Exercise - Solving CPI Calculations (Time: 10 min)

24 - CPU Benchmarking Lecture Materials (Time: 0 min)

Resource: 5.pdf

25 - Extra Resource (Time: 2 min)

### Section 07 - CPU Organization and Structure (Index: 7)

26 - Introduction to CPU Structure (Time: 11 min)

27 - Registers in CPU (Time: 18 min)

28 - Understanding CPU Interruptions (Time: 10 min)

29 - Techniques to Improve CPU Performance (Time: 11 min)

30 - CPU Organization and Structure Lecture Materials (Time: 0 min)

Resource: 6.pdf

31 - Extra Reading Material (Time: 2 min)

### Section 08 - CPU Pipelining (Index: 8)

32 - What is CPU Pipelining (Time: 18 min)

33 - Resource Hazards (Time: 9 min)

34 - Data Hazards (Time: 9 min)

35 - Control Hazards and Branch Prediction (Time: 5 min)

36 - Branch Prediction Strategies (Time: 8 min)

37 - Practical Example for Pipelining - Intel 80486 (Time: 1 min)

38 - CPU Overclocking (Time: 5 min)

39 - CPU Pipelining Lecture Materials (Time: 0 min)

Resource: 7.pdf

### Section 09 - Input-Output Organization (Index: 9)

40 - Introduction to I/O (Time: 12 min)

41 - I/O Mapping (Time: 23 min)

42 - Asynchronous Data Transfer (Time: 29 min)

43 - Modes of Data Transfer (Time: 36 min)

44 - Input-Output Organization Lecture Materials (Time: 0 min)

Resource: 8.pdf

### Section 10 - Memory Organization (Index: 10)

45 - Introduction to Memory Hierarchy (Time: 18 min)

46 - Deep dive into Computer Memory Hierarchy (Time: 9 min)

47 - The Principal of Locality (Time: 16 min)

48 - Memory HIT rate and MISS rate (Time: 14 min)

49 - Cache Performance and Optimization (Time: 32 min)

50 - Exercise - Calculating Miss Rate (Time: 10 min)

51 - Memory Technology (Time: 22 min)

52 - DRAM Technology (Time: 12 min)

53 - How a DRAM Works (Time: 22 min)

54 - DRAM Read Cycle Deeply Explained Step by Step (Time: 25 min)

55 - SDRAM and DDR SDRAM Explained (Time: 7 min)

56 - Memory Organization Lecture Materials (Time: 0 min)

Resource: 9.pdf

Resource: 9.2.pdf

57 - Extra Reading Material (Time: 0 min)

### Section 11 - Hierarchical Bus Organization (Index: 11)

58 - Introduction to Hierarchical Bus Structures (Time: 22 min)

59 - Single and Multiple Bus Implementations and Examples (Time: 25 min)

60 - Bus Types, Timing, and Additional Details (Time: 50 min)

61 - Hierarchical Bus Organization Lecture Materials (Time: 0 min)

Resource: 10.pdf

### Section 12 - Course-level Practice Test (Index: 12)

### Section 13 - Conclusion (Index: 13)

62 - Summary (Time: 6 min)

63 - Course Summary Short Note - Mind Map (Time: 0 min)

Resource: Short Note.pdf

## Course ID: 5752334 - HARMONIC PATTERNS ALGO-TRADING WITH PYTHON AND BINANCE&BYBIT

### Section 01 - Introduction (Index: 1)

01 - Welcome and Introduction (Time: 2 min)

02 - \*\*\* LEGAL DISCLAIMER (MUST READ !)\*\*\* (Time: 1 min)

03 - Course Overview (Time: 4 min)

### Section 02 - PART 1 : FOUNDATION (Index: 2)

04 - PART 1 OVERVIEW (Time: 1 min)

05 - Downloads for PART 1 (Time: 0 min)

Resource: PART 1 RESOURCES.zip

### Section 03 - Algorithmic trading, Cryptocurrencies and Binance (Index: 3)

06 - Why Algorithm trading? (Time: 4 min)

07 - Trading and Investment (Time: 6 min)

08 - What is Cryptocurrency? (Time: 3 min)

09 - Why Trading Cryptocurrency? (Time: 4 min)

10 - Why using Binance? (Time: 5 min)

11 - Spot Trading and Futures Trading (Time: 7 min)

### Section 04 - A Deep Introduction to Cryptocurrency Trading and Investing with Binance. (Index: 4)

12 - Binance.com - Quick Overview (Time: 5 min)

13 - Registration and Identification (Time: 3 min)

14 - How to Deposit and withdraw (Time: 4 min)

15 - Types of Orders - Market Orders (Time: 5 min)

16 - Limit Orders (Time: 4 min)

17 - Stop-loss Orders/Stop-limit Orders (Time: 6 min)

18 - OCO Orders (Time: 6 min)

19 - The Order Book (Time: 3 min)

20 - Takers and Makers (Time: 4 min)

21 - Bid-Ask Spread and Slippage (Time: 7 min)

### Section 05 - Installing Anaconda and Pycharm (Index: 5)

22 - Introduction (Time: 1 min)

23 - Downloading and Installation of Anaconda (Time: 3 min)

24 - Downloading and Installation of Pycharm (Time: 6 min)

25 - How to work with Pycharm (Time: 6 min)

### Section 06 - Trading with Python and Binance API (Index: 6)

26 - OVERVIEW (Time: 2 min)

27 - Getting the Binance API Key (Time: 6 min)

28 - Installing the Binance API Wrapper (Time: 6 min)

29 - Connecting to the API Server (Time: 10 min)

30 - How to retrieve general account Infomation (Time: 16 min)

31 - Getting current Market Data (Time: 15 min)

32 - How to Load Historical Data from Website (Time: 11 min)

33 - Loading the Historical Data by Python (Time: 18 min)

34 - Loading the Historical Data via the API (Time: 8 min)

35 - Streaming real-time Market Data - PT 1 (Time: 14 min)

36 - Streaming real-time Market Data - PT 2 (Time: 6 min)

37 - Streaming and Collecting real-time Candles - PT 1 (Time: 14 min)

38 - Streaming and Collecting real-time Candles - PT 2 (Time: 11 min)

39 - Creating a Test Order (Time: 8 min)

40 - The Binance Spot Test Network/Creating a connection to the Spot Testnet (Time: 12 min)

41 - Spot Testnet API(Overview) - PT 1 (Time: 13 min)

42 - Spot Testnet API(Overview) - PT 2 (Time: 11 min)

43 - Spot Testnet API(Overview) - PT 3 (Time: 11 min)

44 - Placing Market Order (Buy and Sell) - PT 1 (Time: 9 min)

45 - Placing Market Order (Buy and Sell) - PT 2 (Time: 8 min)

46 - Placing Limit Order - PT 1 (Time: 12 min)

47 - Placing Limit Order - PT 2 (Time: 15 min)

48 - Getting all Orders and Trades (Time: 8 min)

### Section 07 - PART 2 : BULDING THE HARMONIC PATTERNS STRATEGY (Index: 7)

49 - OVERVIEW (Time: 1 min)

50 - Downloads for Part 2 (Time: 0 min)

Resource: PART\_2\_RESOURCES.zip

### Section 08 - THE HARMONIC PATTERNS (Index: 8)

51 - What are Harmonic Patterns? (Time: 1 min)

52 - Why Harmonic Pattern? (Time: 2 min)

53 - Fibonacci and Golden Ratio (Time: 3 min)

54 - Fib. level, Retracement and Extension (Time: 8 min)

55 - Types of Harmonic Pattern (Time: 2 min)

56 - The Gartley Pattern (Time: 8 min)

57 - The Cypher Pattern (Time: 8 min)

58 - The Butterfly Pattern (Time: 7 min)

59 - The Crab Pattern (Time: 9 min)

60 - The Deep Crab Pattern (Time: 3 min)

61 - The Bat Pattern (Time: 8 min)

62 - The Alternate Bat Pattern (Time: 2 min)

63 - The Shark Pattern (Time: 7 min)

64 - The Swan Pattern (White swan and Black swan) (Time: 4 min)

### Section 09 - Building the Strategy (Index: 9)

65 - Introduction (Time: 1 min)

66 - Installing the necessary python packages (Time: 5 min)

67 - Getting the Historical Data (Time: 13 min)

68 - Finding the Extrema (Time: 11 min)

69 - Finding the Peaks - PT 1 (Time: 5 min)

70 - Finding the Peaks - PT 2 (Time: 6 min)

71 - The Pattern Finder (Time: 14 min)

72 - Creating the first Pattern - The Butterfly Pattern - PT 1 (Time: 16 min)

73 - Creating the first Pattern - The Butterfly Pattern - PT 2 (Time: 4 min)

74 - Creating harmonic\_func file - PT 1 (Time: 14 min)

75 - Creating harmonic\_func file - PT 2 (Time: 6 min)

76 - The Gartley Pattern (Time: 7 min)

77 - The Cypher Pattern (Time: 8 min)

78 - The Bat Pattern (Time: 6 min)

79 - The Alternate Bat Pattern (Time: 5 min)

80 - The Crab Pattern (Time: 5 min)

81 - The Deep Crab Pattern (Time: 5 min)

82 - The Shark Pattern (Time: 8 min)

83 - The White Swan Pattern (Time: 7 min)

84 - The Black swan Pattern (Time: 7 min)

85 - Cleaning Up Our Code (Time: 18 min)

### Section 10 - Strategy Backtesting Implementation/Backtesting (Index: 10)

86 - Strategy Implementation - Creating Orders with our Strategy(Bullish) - PT 1 (Time: 17 min)

87 - Strategy Implementation - Creating Orders with our Strategy(Bullish) - PT 2 (Time: 5 min)

88 - Strategy Implementation - Creating Orders with our Strategy(Bearish) - PT 3 (Time: 11 min)

89 - Backtesting - PT 1 (Time: 13 min)

90 - Backtesting - PT 2 (Time: 13 min)

91 - Backtesting - PT 3 (Time: 14 min)

92 - Backtesting - PT 4 (Time: 9 min)

93 - Trading Costs (Time: 8 min)

### Section 11 - Strategy Optimization and Forward Testing (Index: 11)

94 - Introduction - Strategy Optimization - PT 1 (Time: 12 min)

95 - Strategy Optimization - PT 2 (Time: 12 min)

96 - Strategy Optimization - PT 3 (Time: 19 min)

97 - Strategy Optimization - PT 4 (Time: 12 min)

98 - Backtesting and Forward testing -PT 1 (Time: 18 min)

99 - Backtesting and Forward testing -PT 2 (Time: 9 min)

100 - Backtesting and Forward testing -PT 3 (Time: 13 min)

101 - Backtesting and Forward testing -PT 4 (Time: 18 min)

### Section 12 - PART 3 : AUTOMATED SPOT TRADING (Index: 12)

102 - Overview (Time: 1 min)

103 - Downloads for Part 3 (Time: 0 min)

Resource: Part\_3\_RESOURCES.zip

### Section 13 - Implementation and Automation of the Harmonic Patterns Strategy with Binance (Index: 13)

104 - Introduction (Time: 0 min)

105 - Getting Started (Time: 7 min)

106 - Recap: Streaming and Collecting Real-Time Candles (Time: 13 min)

107 - Creating the Harmonic Pattern Class - PT 1 (Time: 14 min)

108 - Creating the Harmonic Pattern Class - PT 2 (Time: 6 min)

109 - Working with Historical Data and Real- time Data - PT 1 (Time: 12 min)

110 - Working with Historical Data and Real- time Data - PT 2 (Time: 10 min)

111 - Adding the Harmonic Patterns Strategy (Time: 10 min)

112 - Adding the Harmonic Patterns Strategy(Bullish) - PT 1 (Time: 15 min)

113 - Adding the Harmonic Patterns Strategy(Bullish) - PT 2 (Time: 12 min)

114 - Adding the Harmonic Patterns Strategy(Bearish) - PT 3 (Time: 18 min)

115 - Implementing and Automating our Strategy - PT 1 (Time: 15 min)

116 - Implementing and Automating our Strategy - PT 2 (Time: 10 min)

### Section 14 - Telegram Messaging Inclusion (Index: 14)

117 - Telegram Bot Setup (Time: 6 min)

118 - Sending first message via URL (Time: 8 min)

119 - Sending message through Python (Time: 15 min)

120 - Incorporating telegram into our Strategy (Time: 19 min)

### Section 15 - AWS Cloud Deployment (Index: 15)

121 - Introduction (Time: 2 min)

122 - Amazon Web Services (AWS) and how to create a free tier- Overview (Time: 4 min)

123 - How to create an EC2 Instance (Time: 5 min)

124 - How to connect to your EC2 Instance (Time: 5 min)

125 - Getting the Instance ready for Algo-trading - PT 1 (Time: 5 min)

126 - Getting the Instance ready for Algo-trading - PT 2 (Time: 9 min)

127 - How to run the Scripts in a window command prompt (Time: 5 min)

128 - How to start trading session with batch(.bat)file (Time: 4 min)

### Section 16 - PART 4 : AUTOMATED FUTURES TRADING (Index: 16)

129 - Overview (Time: 6 min)

130 - Downloads for Part 4 (Time: 0 min)

Resource: PART\_4\_RESOURCES.zip

### Section 17 - Futures Trading (Index: 17)

131 - Creating an account on Binance Futures Testnet - First Steps (Time: 3 min)

132 - Our first Futures Trade(Going Long) (Time: 5 min)

133 - Trading with Leverage (Time: 5 min)

134 - Taking a Short Trade (Time: 3 min)

135 - Stop-loss and Take-profit (Time: 9 min)

136 - Exploring Margin Mode : Cross vs Isolated (Time: 7 min)

137 - Position Mode : One way mode vs Hedge mode (Time: 6 min)

### Section 18 - Backtesting the Harmonic Patterns Strategy with Futures . (Index: 18)

138 - Introduction (Time: 1 min)

139 - Backtesting without leverage and trading cost in futures trading (Time: 10 min)

140 - Backtesting with leverage and its impact (Time: 7 min)

### Section 19 - Automating the Future Trading Strategy with Binance Futures API (Index: 19)

141 - Introduction (Time: 2 min)

142 - The Binance Futures API - PT 1 (Time: 17 min)

143 - The Binance Futures API - PT 2 (Time: 8 min)

144 - How to change Setting and Mode through Binance API (Time: 15 min)

145 - Placing Market Orders (Long) (Time: 19 min)

146 - Placing Market Orders (Short) (Time: 7 min)

147 - Getting Historical Futures Market Data (Time: 10 min)

148 - Streaming Futures Prices in Real-Time (Time: 10 min)

149 - The Futures Trading Bot - PT 1 (Time: 17 min)

150 - The Futures Trading Bot - PT 2 (Time: 13 min)

151 - The Futures Trading Bot - PT 3 (Time: 12 min)

152 - The Futures Trading Bot - PT 4 (Time: 15 min)

153 - The Futures Trading Bot (SL/TP) - PT 1 (Time: 11 min)

154 - The Futures Trading Bot (SL/TP) - PT 2 (Time: 11 min)

155 - The Futures Trading Bot (SL/TP) - PT 3 (Time: 15 min)

156 - The Futures Trading Bot (SL/TP) - PT 4 (Time: 17 min)

### Section 20 - PART 5 : API TRADING WITH CCXT (Index: 20)

157 - Overview (Time: 0 min)

158 - Downloads for Part 5 (Time: 0 min)

Resource: PART\_5\_RESOURCES.zip

### Section 21 - API TRADING WITH CCXT AND BINANCE (Index: 21)

159 - Introduction (Time: 4 min)

160 - Preparations (Time: 4 min)

161 - First Steps with CCXT (Time: 13 min)

162 - General Exchange Info(CCXT) (Time: 10 min)

163 - The Public API (Time: 14 min)

164 - Loading Historical Data - PT 1 (Time: 12 min)

165 - Loading Historical Data - PT 2 (Time: 14 min)

166 - Loading Historical Data - PT 3 (Time: 12 min)

167 - Streaming Real-Time Data -PT 1 (Time: 13 min)

168 - Streaming Real-Time Data -PT 2 (Time: 10 min)

169 - Streaming Real-Time Data -PT 3 (Time: 11 min)

170 - Getting Historical Data and Stream live Data - PT 1 (Time: 9 min)

171 - Getting Historical Data and Stream live Data - PT 2 (Time: 13 min)

172 - Getting Historical Data and Stream live Data - PT 3 (Time: 17 min)

173 - Getting Historical Data and Stream live Data - PT 4 (Time: 13 min)

174 - The Private API (Time: 16 min)

175 - How to connect to Testnets(Sandbox Mode) (Time: 6 min)

176 - Creating orders and executing trade(Spot) (Time: 13 min)

177 - Creating Orders(Futures) - PT 1 (Time: 14 min)

178 - Creating Orders(Futures) - PT 2 (Time: 8 min)

179 - A CCXT Spot Trading Bot (Time: 7 min)

## Course ID: 1565838 - The Complete Full-Stack Web Development Bootcamp

### Section 01 - Front-End Web Development (Index: 1)

01 - What You'll Get in This Course (Time: 3 min)

02 - Download the Course Syllabus (Time: 0 min)

Resource: 2023 Web Dev Syllabus.pdf

03 - Download the 12 Rules to Learn to Code eBook [Latest Edition] (Time: 1 min)

Resource: 12 Rules to Learn to Code [2nd Edition] 2022.pdf

04 - Download the Required Software (Time: 1 min)

05 - How Does the Internet Actually Work? (Time: 5 min)

Resource: Submarine Cable Map

06 - How Do Websites Actually Work? (Time: 8 min)

07 - How to Get the Most Out of the Course (Time: 10 min)

Resource: App Brewery Cornell Notes Template

08 - How to Get Help When You're Stuck (Time: 7 min)

09 - Pathfinder (Time: 2 min)

### Section 02 - Introduction to HTML (Index: 2)

10 - A Note About 2023 Course Updates (Time: 1 min)

11 - What is HTML? (Time: 4 min)

12 - How to Download the Course Resources (Time: 3 min)

13 - HTML Heading Elements (Time: 14 min)

Resource: 2.1 Heading Element.zip

Resource: MDN Docs for Heading Elements

Resource: [Windows] How to extract files from Zipped folder

Resource: [Mac] How to extract files from a Zipped folder

14 - HTML Paragraph Elements (Time: 9 min)

Resource: 2.2 Paragraph Element.zip

15 - Self Closing Tags (Time: 12 min)

Resource: 2.3 Void Elements.zip

Resource: Diff Checker

16 - [Project] Movie Ranking (Time: 6 min)

Resource: 2.4 Movie Ranking Project.zip

17 - How to Ace this Course (Time: 1 min)

Resource: Goal Setting Questions.pdf

### Section 03 - Intermediate HTML (Index: 3)

18 - The List Element (Time: 11 min)

Resource: 3.0 List Elements.zip

19 - Nesting and Indentation (Time: 14 min)

Resource: 3.1 Nesting and Indentation.zip

20 - Anchor Elements (Time: 11 min)

Resource: 3.2 Anchor Elements.zip

Resource: MDN Docs - Anchor Element

21 - Image Elements (Time: 8 min)

Resource: 3.3 Image Elements.zip

22 - [Project] Birthday Invite (Time: 4 min)

Resource: 3.4 Birthday Invite Project.zip

23 - Tip from Angela - Habit Building with the Calendar Trick (Time: 3 min)

24 - Get Access to the Monthly App Brewery Newsletter (Time: 1 min)

Resource: Subscribe to the Newsletter

### Section 04 - Multi-Page Websites (Index: 4)

25 - Computer File Paths (Time: 19 min)

Resource: 4.0 File Paths.zip

26 - What are Webpages? (Time: 13 min)

Resource: 4.1 Webpages.zip

27 - The HTML Boilerplate (Time: 13 min)

28 - [Project] Portfolio Website (Time: 9 min)

Resource: 4.3 HTML Portfolio Project.zip

29 - How to Host Your Website for Free with GitHub (Time: 9 min)

Resource: GitHub

30 - Introduction to Capstone Projects (Time: 5 min)

31 - Instructions for Capstone Project 1 - Online Resume (Time: 2 min)

### Section 05 - Introduction to CSS (Index: 5)

32 - Why do we need CSS? (Time: 9 min)

33 - How to add CSS (Time: 15 min)

Resource: 5.1 Adding CSS.zip

34 - CSS Selectors (Time: 23 min)

Resource: 5.3 CSS Selectors.zip

Resource: MDN Docs - List Element

35 - [Project] Colour Vocab Website (Time: 9 min)

Resource: 5.4 Color Vocab Project.zip

36 - Tip from Angela - Dealing with Distractions (Time: 2 min)

37 - Join the Student Community (Time: 1 min)

Resource: Course Fixes: Report an Issue

### Section 06 - CSS Properties (Index: 6)

38 - CSS Colours (Time: 7 min)

Resource: 6.0 CSS Colors.zip

Resource: Docs - Named Colours

Resource: RGB Colour Sliders

39 - Font Properties (Time: 21 min)

Resource: 6.1 Font Properties.zip

40 - Inspecting CSS (Time: 12 min)

Resource: CSS Inspection Practice Website

41 - The CSS Box Model - Margin, Padding and Border (Time: 21 min)

Resource: 6.3 CSS Box Model.zip

Resource: Pesticide Extension

42 - [Project] Motivational Poster Website (Time: 8 min)

Resource: 6.4 Motivation Meme Project.zip

### Section 07 - Intermediate CSS (Index: 7)

43 - The Cascade - Specificity and Inheritance (Time: 25 min)

Resource: 7.0 CSS Cascade.zip

44 - Combining CSS Selectors (Time: 23 min)

Resource: 7.1 Combining Selectors.zip

45 - CSS Positioning (Time: 23 min)

Resource: 7.2 CSS Positioning.zip

Resource: Pesticide

46 - [Project] CSS Flag (Time: 18 min)

Resource: 7.3 Flag Project.zip

47 - Tip from Angela - Nothing Easy is Worth Doing! (Time: 4 min)

### Section 08 - Advanced CSS (Index: 8)

48 - CSS Display (Time: 12 min)

Resource: Demo Website for CSS Display

Resource: 8.0 CSS Display.zip

49 - CSS Float (Time: 12 min)

Resource: 8.1 CSS Float.zip

50 - How to Create Responsive Websites (Time: 19 min)

Resource: 8.2 Responsiveness.zip

Resource: Tasty Basics Example Responsive Website

51 - Media Queries (Time: 11 min)

Resource: 8.3 Media Query.zip

Resource: MDN Docs - Media Query

52 - [Project] Web Design Agency Website (Time: 7 min)

Resource: 8.4 Web Design Agency Project.zip

53 - Tip from Angela - How to Deal with Procrastination (Time: 4 min)

### Section 09 - Flexbox (Index: 9)

54 - Display: Flex (Time: 14 min)

Resource: 9.0 Display Flex.zip

Resource: CSS Puns

55 - Flex Direction (Time: 14 min)

Resource: 9.1 Flex Direction.zip

Resource: MDN Docs - CSS Selector Combinators

Resource: MDN Docs - Universal Selectors

56 - Flex Layout (Time: 19 min)

Resource: CSS Tricks - Flexbox Cheatsheet

Resource: Flex Layout

Resource: Flexbox Froggy

57 - Flex Sizing (Time: 24 min)

Resource: Flexbox Sizing Exercise

58 - [Project] Pricing Table (Time: 10 min)

Resource: 9.4 Flexbox Pricing Table Project.zip

59 - Tip from Angela - Building a Programming Habit (Time: 3 min)

### Section 10 - Grid (Index: 10)

60 - Display: Grid (Time: 15 min)

Resource: 10.0 Display Grid.zip

61 - Grid Sizing (Time: 24 min)

Resource: 10.1 Grid Sizing.zip

Resource: Grid Sizing Excercise

62 - Grid Placement (Time: 26 min)

Resource: 10.2 Grid Placement.zip

Resource: Grid Garden Exercise

63 - [Project] Mondrian Painting (Time: 7 min)

Resource: 10.3 Mondrian Project.zip

### Section 11 - Bootstrap (Index: 11)

64 - What is Bootstrap? (Time: 16 min)

Resource: 11.0 Bootstrap Intro.zip

65 - Bootstrap Layout (Time: 21 min)

66 - Bootstrap Components (Time: 32 min)

Resource: 11.2 Bootstrap Components.zip

67 - [Project] TinDog Startup Website (Time: 31 min)

Resource: 11.3 TinDog Project.zip

### Section 12 - Web Design School - Create a Website that People Love (Index: 12)

68 - Introduction to Web Design (Time: 4 min)

Resource: Original Penny Juice

Resource: Rebranded Penny Juice

69 - Understanding Colour Theory (Time: 9 min)

Resource: Color Hunt

Resource: Adobe Color Wheel

70 - Understanding Typography and How to Choose a Font (Time: 10 min)

71 - Manage ATTENTION with effective User Interface (UI) Design (Time: 10 min)

Resource: Design Challenges on Daily UI

Resource: Page inspirations on Collect UI

72 - User Experience (UX) Design (Time: 14 min)

73 - Web Design in Practice - Let's apply what we've learnt! (Time: 18 min)

Resource: Canva

### Section 13 - Capstone Project 2 - Personal Site (Index: 13)

74 - Instructions (Time: 2 min)

### Section 14 - Introduction to Javascript ES6 (Index: 14)

75 - Introduction to Javascript (Time: 12 min)

Resource: Compiled vs Interpreted Explained

Resource: The History of Internet Explorer Comic Strip

76 - Javascript Alerts - Adding Behaviour to Websites (Time: 14 min)

Resource: Writing Good Javascript Guidelines

Resource: The Elements of Style - Wikipedia

77 - Data Types (Time: 4 min)

78 - Javascript Variables (Time: 10 min)

79 - Javascript Variables Exercise Start (Time: 3 min)

80 - Javascript Variables Exercise Solution (Time: 3 min)

81 - Naming and Naming Conventions for Javascript Variables (Time: 7 min)

82 - String Concatenation (Time: 3 min)

83 - String Lengths and Retrieving the Number of Characters (Time: 6 min)

84 - Slicing and Extracting Parts of a String (Time: 9 min)

85 - Challenge: Changing Casing in Text (Time: 4 min)

86 - Challenge: Changing String Casing Solution (Time: 9 min)

87 - Basic Arithmetic and the Modulo Operator in Javascript (Time: 6 min)

88 - Increment and Decrement Expressions (Time: 2 min)

89 - Functions Part 1: Creating and Calling Functions (Time: 11 min)

90 - Functions Part 1 Challenge - The Karel Robot (Time: 9 min)

Resource: Karel Online IDE

91 - The Karel Chess Board Solution (Time: 0 min)

92 - A Quick Note About the Next Lesson (Time: 0 min)

93 - Functions Part 2: Parameters and Arguments (Time: 10 min)

Resource: Javascript Floor Method

94 - Life in Weeks Solution (Time: 4 min)

95 - Functions Part 3: Outputs & Return Values (Time: 11 min)

96 - Challenge: Create a BMI Calculator (Time: 2 min)

97 - Challenge: BMI Calculator Solution (Time: 6 min)

Resource: Course Fixes: Report an Issue

Resource: Math.pow() - MDN

Resource: Javascript round() Method

98 - Tip from Angela - Set Your Expectations (Time: 3 min)

### Section 15 - Intermediate Javascript (Index: 15)

99 - Random Number Generation in Javascript: Building a Love Calculator (Time: 11 min)

Resource: Randomness -video by Khan Academy

Resource: Math.random - MDN docs

Resource: Love Calculator

100 - Control Statements: Using If-Else Conditionals & Logic (Time: 5 min)

101 - Comparators and Equality (Time: 3 min)

102 - Combining Comparators (Time: 3 min)

103 - Introducing the Leap Year Code Challenge (Time: 4 min)

104 - Leap Year Solution (Time: 3 min)

105 - Collections: Working with Javascript Arrays (Time: 9 min)

106 - Adding Elements and Intermediate Array Techniques (Time: 16 min)

Resource: Blog - Why can't programmers program?

Resource: Now that's what I call a Hacker.

107 - Who's Buying Lunch Solution (Time: 4 min)

108 - Control Statements: While Loops (Time: 8 min)

Resource: 99 Bottles of beer lyrics

109 - Solution to the 99 Bottles Challenge (Time: 1 min)

110 - Control Statements: For Loops (Time: 6 min)

111 - Introducing the Fibonacci Code Challenge (Time: 7 min)

Resource: Fibonacci challenge Flow Chart

112 - Fibonacci Solution (Time: 8 min)

Resource: Course Fixes: Report an Issue

113 - Tip from Angela - Retrieval is How You Learn (Time: 3 min)

### Section 16 - The Document Object Model (DOM) (Index: 16)

114 - Adding Javascript to Websites (Time: 11 min)

115 - Introduction to the Document Object Model (DOM) (Time: 12 min)

Resource: HTML Tree Generator (extension)

Resource: DOM Challenge Starting Files.zip

116 - Solution to the DOM Challenge (Time: 0 min)

117 - Selecting HTML Elements with Javascript (Time: 14 min)

118 - Manipulating and Changing Styles of HTML Elements with Javascript (Time: 5 min)

Resource: DOM Style Javascript property names

119 - The Separation of Concerns: Structure vs Style vs Behaviour (Time: 6 min)

120 - Text Manipulation and the Text Content Property (Time: 3 min)

121 - Manipulating HTML Element Attributes (Time: 2 min)

Resource: Course Fixes: Report an Issue

122 - Tip from Angela - The 20 Minute Method (Time: 3 min)

### Section 17 - Boss Level Challenge 1 - The Dicee Game (Index: 17)

123 - Challenge: The Dicee Challenge (Time: 2 min)

124 - Dicee Challenge Step 0 - Download the Skeleton Project (Time: 0 min)

Resource: Dicee Challenge - Starting Files.zip

125 - Dicee Challenge Step 1 - Create an External Javascript File (Time: 0 min)

126 - Dicee Challenge Step 2 - Add Dice Images (Time: 0 min)

127 - Dicee Challenge Step 3 - Create a Random Number (Time: 0 min)

128 - Dicee Challenge Step 4 - Change the <img> to a Random Dice (Time: 0 min)

129 - Dicee Challenge Step 5 - Change both <img> Elements (Time: 0 min)

130 - Dicee Challenge Step 6 - Change the Title to Display a Winner (Time: 0 min)

131 - The Solution to the Dicee Challenge (Time: 15 min)

132 - Download the Completed Website (Time: 0 min)

Resource: Course Fixes: Report an Issue

Resource: Dicee Challenge - Completed.zip

133 - Tip from Angela - Learning Before you Eat (Time: 2 min)

### Section 18 - Advanced Javascript and DOM Manipulation (Index: 18)

134 - What We'll Make: Drum Kit (Time: 1 min)

135 - Download the Starting Files (Time: 0 min)

Resource: Drum Kit Starting Files.zip

136 - Adding Event Listeners to a Button (Time: 14 min)

Resource: Adding Event Listeners

Resource: Events and Event Listeners

137 - Higher Order Functions and Passing Functions as Arguments (Time: 13 min)

Resource: Javascript Wikipedia

138 - Higher Order Function Challenge Solution (Time: 0 min)

139 - How to Play Sounds on a Website (Time: 11 min)

Resource: Playing Audio With Javascript - Stackoverflow

Resource: HTML Audio Element

140 - How to Use Switch Statements in Javascript (Time: 5 min)

141 - A Deeper Understanding of Javascript Objects (Time: 12 min)

142 - Objects, their Methods and the Dot Notation (Time: 6 min)

143 - A Quick Note About the Next Lesson (Time: 0 min)

144 - Using Keyboard Event Listeners to Check for Key Presses (Time: 8 min)

Resource: Events and Event Listeners

Resource: Creating and Triggering Events

Resource: Keypress Event

145 - Understanding Callbacks and How to Respond to Events (Time: 12 min)

Resource: Javascript Wikipedia

146 - Adding Animation to Websites (Time: 9 min)

Resource: Javascript Timeout Function

Resource: W3schools SetTimeout() Demo

147 - Download the Completed Website (Time: 0 min)

Resource: Course Fixes: Report an Issue

Resource: Drum Kit Completed.zip

148 - Tip from Angela - Dealing with Lack of Progress (Time: 3 min)

### Section 19 - jQuery (Index: 19)

149 - What is jQuery? (Time: 4 min)

150 - How to Incorporate jQuery into Websites (Time: 9 min)

Resource: Download Jquery

Resource: Google Hosted Libraries

151 - How Minification Works to Reduce File Size (Time: 4 min)

Resource: Minified Jquery

Resource: minifier.org

152 - Selecting Elements with jQuery (Time: 2 min)

153 - Manipulating Styles with jQuery (Time: 5 min)

154 - Manipulating Text with jQuery (Time: 4 min)

155 - Manipulating Attributes with jQuery (Time: 4 min)

156 - Adding Event Listeners with jQuery (Time: 8 min)

Resource: Events and Event Listeners

157 - Adding and Removing Elements with jQuery (Time: 3 min)

158 - Website Animations with jQuery (Time: 8 min)

Resource: Course Fixes: Report an Issue

Resource: jquery Effect Methods

Resource: jQuery Animate Slide

159 - Tip from Angela - Mixing Knowledge (Time: 2 min)

### Section 20 - Boss Level Challenge 2 - The Simon Game (Index: 20)

160 - What You'll Make: The Simon Game (Time: 1 min)

161 - Play the Game (Time: 0 min)

162 - Step 0 - Download the Starting Files (Time: 0 min)

Resource: Simon Game Challenge Starting Files.zip

163 - Step 1 - Add Javascript and jQuery (Time: 0 min)

164 - Step 1 - Answer (Time: 0 min)

Resource: Simon Game Challenge Step 1 Answer.zip

165 - Step 2 - Create A New Pattern (Time: 1 min)

166 - Step 2 - Answer (Time: 0 min)

Resource: Simon Game Challenge Step 2 Answer.zip

167 - Step 3 - Show the Sequence to the User with Animations and Sounds (Time: 0 min)

168 - Step 3 - Answer (Time: 0 min)

Resource: Simon Game Challenge Step 3 Answer.zip

169 - Step 4 - Check Which Button is Pressed (Time: 1 min)

## Course ID: 3652610 - Reading the markets with MC4 trading system

### Section 01 - Reading the markets with MC4 (Index: 1)

01 - The MC4 system (Time: 9 min)

02 - The Money in the market and the operators (Time: 8 min)

03 - Reading the market with MC4 (Time: 2 min)

04 - Static analysis of open interest (Time: 5 min)

05 - Dynamic analysis of changes in options open interest (Time: 4 min)

06 - Analysis of open interest of future (Time: 3 min)

07 - Cumulative distribution of open interest (Time: 8 min)

08 - Prices and volumes (Time: 14 min)

09 - Volatility analysis with MC4 (Time: 19 min)

10 - Case study with MC4 (Time: 6 min)

## Course ID: 5573566 - The Complete NUXT 3 Bootcamp: Full-Stack Guide

### Section 01 - Introduction to this Masterclass (Index: 1)

01 - What you are going to get from this Nuxt JS Masterclass (Time: 9 min)

02 - How to succeed in this Masterclass (Time: 5 min)

03 - Course Outlines (Time: 3 min)

04 - The tools that we are going to need in this Masterclass (All free) (Time: 5 min)

05 - How to download files from the Udemy Resources tab (Time: 2 min)

06 - How to solve the Coding Exercises (Time: 3 min)

07 - Join our Discord community (Time: 0 min)

08 - The source code for the whole course (Time: 0 min)

09 - One More Thing!!! (Time: 2 min)

### Section 02 - Introduction to NuxtJS (Index: 2)

10 - What is Nuxt JS Conceptually? (Time: 4 min)

11 - What is NuxtJS Technically? (Time: 16 min)

12 - What do we mean by 'Rendering a web page'? (Time: 4 min)

13 - Server-Side Rendering VS Client-Side Rendering (Time: 6 min)

14 - How Client-Side Rendering and Server-Side Rendering work? (Time: 6 min)

15 - A Coding Example on Server-Side Rendering (Time: 3 min)

16 - What is Universal Rendering? and why Nuxt uses it? (Time: 4 min)

17 - What do we mean by 'MORE CONTROL' in Client-Side Rendering (Time: 2 min)

18 - Nuxt VS Vue (Time: 3 min)

### Section 03 - NuxtJS Fundamentals [Part 1] (Installation, Views, Routing, Styling and more...) (Index: 3)

19 - What are we going to do in the upcoming sections [Labeled NuxtJS Fundamentals] (Time: 1 min)

20 - Installation: Setting up any Nuxt Project (Time: 4 min)

21 - Installing some useful VScode extensions [Optional] (Time: 3 min)

22 - Configuration in Nuxt JS (Time: 2 min)

23 - Nuxt Devtools (Time: 5 min)

24 - Views: app.vue file (Time: 1 min)

25 - Coding Exercise (Create a "Hello World" app) {Prompt} (Time: 1 min)

26 - Coding Exercise (Create a "Hello World" app) {SOLUTION} (Time: 2 min)

27 - Views: Vue Components (Time: 3 min)

28 - Coding Exercise (Creating a NavBar Component) {Prompt} (Time: 1 min)

29 - Coding Exercise (Creating a NavBar Component) {Solution} (Time: 3 min)

30 - Routing: Pages (Time: 9 min)

31 - Routing: Route groups (Time: 5 min)

32 - Coding Exercise (Defining Pages for NavBar Items) {Prompt} (Time: 1 min)

33 - Coding Exercise (Defining Pages for NavBar Items) {Solution} (Time: 2 min)

34 - Routing: Navigation (Time: 8 min)

35 - Coding Exercise (Adding Navigation Links to NavBar Items) {Prompt} (Time: 1 min)

36 - Coding Exercise (Adding Navigation Links to NavBar Items) {Solution} (Time: 1 min)

37 - Routing: Route parameters (Time: 9 min)

38 - Routing: Route parameters ($route) (Time: 1 min)

39 - Routing: Route parameters (catch all routes) (Time: 3 min)

40 - Coding Exercise (Create a Route for Personalized Greetings) {Prompt} (Time: 2 min)

41 - Coding Exercise (Create a Route for Personalized Greetings) {Solution} (Time: 3 min)

42 - Routing: Route middleware (Part 1) (Time: 12 min)

43 - Routing: Route middleware (Part 2) (Time: 6 min)

44 - Routing: Route middleware (Part 3) (Time: 5 min)

45 - Routing: Route middleware (Part 4) (Time: 8 min)

46 - Routing: Route validation (Time: 3 min)

47 - Views: Layouts (Time: 13 min)

48 - Lazy Loading in Nuxt 3 (Dynamic Imports) (Time: 6 min)

49 - Assets (Time: 5 min)

50 - Styling (Time: 11 min)

51 - SEO and Metadata (Time: 8 min)

52 - Transitions (Time: 5 min)

### Section 04 - NuxtJS Fundamentals [Part 2] (Data Fetching) (Index: 4)

53 - Data Fetching: What is Data Fetching? (Time: 3 min)

54 - What is an API ( A video from our YouTube Channel ) [Optional Lecture] (Time: 6 min)

55 - Data Fetching: useFetch() composable (How does it work?) (Time: 4 min)

Resource: Fakestore API website

56 - Data Fetching: useFetch() composable (Adding Dynamic URLS) (Time: 6 min)

57 - Data Fetching: useFetch() composable (De-Duplicating Fetch Requests) (Time: 12 min)

58 - Data Fetching: useFetch() composable (Adding a Base URL) (Time: 2 min)

59 - Data Fetching: useFetch() composable (Doing a POST Request) (Time: 2 min)

60 - Data Fetching: useFetch() composable (Doing a PUT Request) (Time: 1 min)

61 - Data Fetching: useFetch() composable (Doing a PATCH Request) (Time: 1 min)

62 - Data Fetching: useFetch() composable (Adding query or params) (Time: 6 min)

63 - Data Fetching: useFetch() composable(Avoid fetching data on the server) (Time: 7 min)

64 - Data Fetching: useFetch() composable (lazy option) (Time: 4 min)

65 - Data Fetching: useFetch() composable (immediate option) (Time: 2 min)

66 - Data Fetching: useFetch() composable (default option) (Time: 2 min)

67 - Data Fetching: useFetch() composable (transform option) (Time: 2 min)

68 - Data Fetching: useFetch() composable (pick option) (Time: 1 min)

69 - Data Fetching: useFetch() composable (watch option) (Time: 5 min)

70 - Data Fetching: useFetch() composable (getCachedData option) (Time: 6 min)

71 - Data Fetching: useFetch() composable (deep option) (Time: 8 min)

72 - The deep option issue is fixed [Good News] (Time: 0 min)

73 - Data Fetching: useFetch() composable (Return Values) (Time: 5 min)

74 - Coding Exercise (Create a currency converter App using useFetch() ) {Prompt} (Time: 2 min)

75 - Coding Exercise (Create a currency converter App using useFetch() ) {Solution} (Time: 16 min)

76 - Data Fetching: $fetch() Library (Time: 5 min)

77 - Data Fetching: useAsyncData() composable (Time: 9 min)

### Section 05 - NuxtJS Fundamentals [Part 3] (State Management) (Index: 5)

78 - useState() Composable (Time: 5 min)

79 - Shared State (Time: 3 min)

80 - Creating a shared State Composable (Time: 3 min)

81 - shallowRef State (Time: 4 min)

82 - Coding Exercise (Build a Todo Web App using useState()) {Prompt} (Time: 1 min)

83 - Coding Exercise (Build a Todo Web App using useState()) {Solution} (Time: 7 min)

### Section 06 - NuxtJS Fundamentals [Part 4] (Error Handling) (Index: 6)

84 - Error Pages (Time: 7 min)

85 - createError() (Time: 6 min)

86 - clearError() (Time: 3 min)

### Section 07 - NuxtJS Fundamentals [Part 5] (Nitro Server) (Index: 7)

87 - The server directory (Time: 5 min)

88 - Server Routes (Time: 3 min)

89 - Server Route Parameters (Time: 4 min)

90 - Catching all routes on the server-side (Time: 3 min)

91 - Body Handling (Time: 5 min)

92 - Query Parameters (Time: 2 min)

93 - Matching HTTP Method (Time: 13 min)

94 - Server Middleware (Time: 3 min)

95 - Runtime Config and .env file (Time: 9 min)

96 - Important note on runtime config and .env file (Time: 0 min)

97 - Request Cookies (Time: 2 min)

98 - Sending Redirect (Time: 2 min)

### Section 08 - NuxtJS Fundamentals [Part 6] (Testing in Nuxt JS) (Index: 8)

99 - Why Testing is very important? (Time: 3 min)

100 - Adding all test utilities and libraries (Time: 6 min)

101 - Using Vitest (Time: 10 min)

102 - Using Vue Test Utilities (Time: 9 min)

103 - Using Nuxt Test Utilities (Time: 3 min)

### Section 09 - NuxtJS Fundamentals [Part 7] ( Authentication of Users in Nuxt 3 using Supabase) (Index: 9)

104 - What is Authentication in Web Development? (Time: 1 min)

105 - What is supabase? (Time: 1 min)

106 - How does Authentication with Supabase works Conceptually (Time: 3 min)

107 - Establishing the connection between our Nuxt app and Supabase (Time: 6 min)

108 - Allowing users to Register to our Nuxt App using Supabase (Time: 13 min)

109 - Allowing users to Logout from our Nuxt App using Supabase (Time: 5 min)

110 - Allowing users to Login to our Nuxt App using Supabase (Time: 6 min)

111 - Allowing users to Login with their Google or GitHub Accounts (Time: 10 min)

### Section 10 - NuxtJS Fundamentals [Part 8] ( Deployment of Nuxt JS Apps ) (Index: 10)

112 - Running the production build locally on your computer (Time: 3 min)

113 - Deploying any Nuxt App to the Internet (Time: 6 min)

### Section 11 - Build and Deploy a Movie Info App (Cinemate) using Nuxt 3 and Tailwind CSS (Index: 11)

114 - What are we going to build in this project (Time: 2 min)

115 - Setting up the Project (Time: 4 min)

116 - Exploring the Movie DB website and getting our free API key (Time: 3 min)

117 - Defining the Pages of our app (Time: 2 min)

118 - Defining the components of our app (Time: 1 min)

119 - Defining the layouts of our app (Time: 1 min)

120 - Creating the MovieCard component (Time: 7 min)

121 - Creating the SeriesCard component (Time: 3 min)

122 - Creating the default layout of the project (Time: 6 min)

Resource: logo.png

123 - Fetching the 'Discover movies and series' data on the server-side (Time: 6 min)

124 - Creating the home page of the App [Discover Movies Page] (Time: 9 min)

125 - Fetching the 'Now Playing' data on the server-side (Time: 2 min)

126 - Creating the page that will display the 'Now Playing' data on the client-side (Time: 2 min)

127 - Fetching the 'popular' data on the server-side (Time: 3 min)

128 - Creating the page that will display the 'popular' data on the client-side (Time: 2 min)

129 - Fetching the 'search' data on the server-side (Time: 4 min)

130 - Creating the page that will display the search results on the client-side (Time: 7 min)

131 - Fetching the 'Top Rated' data on the server-side (Time: 3 min)

132 - Creating the page that will display the 'Top Rated' data on the client-side (Time: 2 min)

133 - Fetching the 'Upcoming' data on the server-side (Time: 1 min)

134 - Creating the page that will display the 'Upcoming' data on the client-side (Time: 1 min)

135 - Creating the page that will display a single item (Time: 4 min)

136 - Deploying Cinemate App to the Internet on Netlify (Time: 4 min)

137 - Fixing a Bug in Cinemate App (Time: 5 min)

138 - The source code for Cinemate App (on Github) (Time: 0 min)

### Section 12 - Build and Deploy an API Service (Randoms) with documentation using Nuxt & Docus (Index: 12)

139 - What are we going to build in this project (Time: 2 min)

140 - Setting up the project (Time: 2 min)

141 - Setting up our API endpoints (Time: 1 min)

142 - Exploring api ninjas and getting an API key (Time: 2 min)

143 - celebrities API Endpoint (Time: 6 min)

144 - posts API Endpoint (Get all posts) (Time: 2 min)

145 - posts API Endpoint (adding a new post) (Time: 3 min)

146 - posts API Endpoint (getting a specific post) (Time: 3 min)

147 - posts API Endpoint (editing a specific post) (Time: 3 min)

148 - posts API Endpoint (editing part of a specific post) (Time: 3 min)

149 - posts API Endpoint (deleting a post) (Time: 2 min)

150 - products API Endpoints (Get all products) (Time: 2 min)

151 - products API Endpoint (adding a new product) (Time: 2 min)

152 - products API Endpoint (getting a specific product) (Time: 2 min)

153 - products API Endpoint (Editing a specific product) (Time: 2 min)

154 - products API Endpoint (Getting all categories) (Time: 1 min)

155 - products API Endpoint (Getting a specific category type) (Time: 3 min)

156 - Writing the documentation for our APIs using markdown (Time: 16 min)

157 - Deploying Randoms App to Netlify (Time: 6 min)

158 - The source code for Randoms App (on Github) (Time: 0 min)

### Section 13 - Build and Deploy a fully functioning E-commerce App (Shopiverse) using Nuxt 3 (Index: 13)

159 - What are we going to build in this project (Time: 1 min)

160 - Setting up the Project (The dependencies and the Database setup) (Time: 20 min)

161 - Fixing some issues (Time: 1 min)

Resource: Source code

162 - Defining the UI components of the app (Time: 2 min)

163 - Creating the Header Component (Time: 1 min)

164 - Creating the PublicNav Component (Time: 7 min)

Resource: avatar.png

165 - Creating the UserNav Component (Time: 3 min)

Resource: avatar.png

166 - Creating the ProductComp Component (Time: 12 min)

167 - Creating the Loading Component (Time: 1 min)

168 - Creating the Default Layout of the App (Including applying the dark mode) (Time: 3 min)

169 - Creating the shared state of the App (The Shopping Cart state) (Time: 2 min)

170 - Creating the home page of the App (Time: 2 min)

171 - Creating the API endpoint to fetch products data (Time: 5 min)

172 - Creating the Register Page (Time: 13 min)

173 - Creating the Confirm page (Time: 2 min)

174 - Creating the Logout Page (Time: 12 min)

175 - Creating the login page (Time: 5 min)

176 - Creating login with Google and GitHub functions (Time: 8 min)

177 - Creating the Search Page (Time: 5 min)

178 - Fetching the search results on the server-side (Time: 6 min)

## Course ID: 397068 - Selenium Webdriver with PYTHON from Scratch + Frameworks

### Section 01 - Why Python Testing and its Importance? (Index: 1)

01 - Why Choose Selenium Python for Test Automation needs? (Time: 10 min)

02 - Glance on Selenium Features (Time: 0 min)

### Section 02 - Complete Installation Guide for Python and Selenium Learning (Index: 2)

03 - Video Player Setting tips for Best Experience in viewing course (Time: 3 min)

04 - How to Install Python in your Machine? (Time: 7 min)

05 - Important note for MAC Users (Time: 4 min)

06 - What is PIP Client? -How to download Python Packages (Time: 8 min)

07 - Python, Selenium Installation Guide Download (Time: 1 min)

08 - Install PyCharm Editor and set Project Interpreter (Time: 9 min)

### Section 03 - Getting Started with Python Basics (Index: 3)

09 - Where to download Code files of Python topics? (Time: 0 min)

10 - Python hello world Program with Basics (Time: 9 min)

11 - Datatypes in python and how to get the Type at run time (Time: 7 min)

### Section 04 - Understanding Python Datatypes and Variables (Index: 4)

12 - List Datatype and its operations to manipulate (Time: 16 min)

13 - Tuple and Dictionary Data types in Python with examples (Time: 11 min)

14 - How to Create Dictionaries at run time and add data into it (Time: 4 min)

### Section 05 - Program Flow Control in Python (Index: 5)

15 - If else condition in python with working examples (Time: 10 min)

16 - How loops work in Python and importance of code idendation (Time: 11 min)

17 - Programming examples using for loop - 1 (Time: 5 min)

18 - Programming examples using While loop - 2 (Time: 13 min)

19 - What are functions? How to use them in Python (Time: 13 min)

### Section 06 - Understand Object Oriented Principles of Python (Index: 6)

20 - OOPS Principles : Classes and objects in Python (Time: 9 min)

21 - What is Constructor and its role in Object oriented programming Rec-10-19-5 (Time: 17 min)

22 - Inheritance concepts with examples in Python Rec 10-19-19 6 (Time: 15 min)

23 - Strings and its functions in python (Time: 12 min)

24 - Code files download (Time: 0 min)

Resource: pythonBasics.zip

### Section 07 - Read & Write to Files in Python (Index: 7)

25 - How to read text file content using Python (Time: 8 min)

26 - Importance of readLine and readLines Methods in python (Time: 10 min)

27 - Writing Data into File using Python (Time: 10 min)

### Section 08 - Exception Handling Mechanism in Python (Index: 8)

28 - How to raise exception in Python? (Time: 6 min)

29 - Try Catch Mechanism using Python (Time: 11 min)

30 - Usage of Finally Keyword with exceptions (Time: 6 min)

### Section 09 - Selenium Python package Setup with different browsers execution (Index: 9)

31 - Where to download code files? (Time: 0 min)

32 - Invoking Chrome Browser and understand the importance of Service class (Time: 18 min)

33 - Running Tests in Chrome, Firefox, Edge on basic WebDriver Methods (Time: 10 min)

34 - code download (Time: 0 min)

### Section 10 - Different Types of Locators in WebDriver API with examples (Index: 10)

35 - Inspecting HTML to identify attributes of element (Time: 10 min)

36 - Introduction to CSS Selector and name locators with example (Time: 11 min)

37 - Finding Elements with Xpath and Css Using Chropath Plugin (Time: 8 min)

38 - Extracting Text from webPage with Validation Assertions (Time: 14 min)

### Section 11 - Python API->Techniques to automate Web elements (Index: 11)

39 - Web applications to Practise Selenium Automation (Time: 3 min)

40 - Identifying Static dropdowns using Select class of selenium (Time: 7 min)

41 - Handling AutoSuggestive Dynamic dropdowns using Selenium Webdriver (Time: 15 min)

42 - Get Attribute of values to validate dynamic texts on the browser (Time: 8 min)

43 - Handling CheckBox dynamically using Selenium Python programming (Time: 10 min)

44 - Understand radiobutton Automation methods with examples (Time: 6 min)

45 - Handling Java / JavaScript Alert popups using Selenium (Time: 9 min)

46 - Code (Section 9,10,11) download (Time: 0 min)

Resource: code-Part1.zip

### Section 12 - Synchronization (Explicit & Implicit Waits) in Selenium webdriver (Index: 12)

47 - What are waits? And Practise WebPage Demo for Automation (Time: 9 min)

48 - Developing End to End Testcase to Automate ecommerce GreenKart Application (Time: 11 min)

49 - What is Impilicit Wait in Selenium? And its advantages (Time: 6 min)

50 - What is Explicit Wait in Selenium? And Example to demonstrate (Time: 12 min)

51 - Where to download code files? (Time: 0 min)

### Section 13 - Deep Dive into Functional Automation using Python (Index: 13)

52 - Functional Automation example on GreenKart application - 1 (Time: 10 min)

53 - Assignment - 2 Exercises (Time: 2 min)

54 - Functional Automation example on GreenKarts application - 2 (Time: 10 min)

55 - Code download for Section 12 & 13 (Time: 0 min)

Resource: waitDemo.py

Resource: explicitwaitDemo.py

### Section 14 - Handling Advanced User Interactions and Child windows, Frames (Index: 14)

56 - Advanced Interactions with Browser elements using Actions class Rec 11-07-19 2 (Time: 11 min)

57 - Techniques to handle Child Windows/Tabs with Selenium (Time: 11 min)

58 - What are Frames and techniques to handle with Selenium (Time: 11 min)

### Section 15 - Selenium Python Miscellaneous (Index: 15)

59 - What is JavaScript executor? Where do we need it in selenium (Time: 12 min)

60 - How to Sort the Web tables using Selenium Python -Logic build (Time: 18 min)

61 - What are Chrome Options and importance of them in Selenium (Time: 10 min)

Resource: chromeOptionsDemo.py

### Section 16 - Uploads & Downloads with Selenium Python and Libraries to work with excel docs (Index: 16)

62 - How this section is organized into 2 parts - Know more (Time: 2 min)

63 - Tutorial on reading/writing into excel using Python Libraries (Time: 28 min)

64 - How upload & Download works in Selenium Python with an example (Time: 19 min)

65 - Generating smart xpaths to query table data dynamically wth selenium (Time: 10 min)

66 - Build excel utils to update the excel files and upload it back to web portal (Time: 19 min)

67 - Code download (Time: 1 min)

### Section 17 - End to End Practise Project with Complete methods in Selenium (Index: 17)

68 - Selecting a Product from list of products with Product Name parameter (Time: 8 min)

69 - Complete Checkout Logic with Product selection example (Time: 8 min)

70 - Handling Auto suggestive dropdown to select Location and confirm order (Time: 13 min)

71 - CODE DOWNLOAD ( Section 9 - Section 16) (Time: 0 min)

Resource: pythonTesting.zip

### Section 18 - Part 1 - Learn Pytest Fundamentals - Unit Testing Framework of Python (Index: 18)

72 - Framework Learning Plan - Must watch (Time: 2 min)

73 - What is Pytest and its advantages (Time: 10 min)

74 - Running Pytests from Terminal with different command flags (Time: 10 min)

75 - How to run selected Pytests from set of Tests (Time: 8 min)

76 - Grouping tests with pytest marks to run selected group (Time: 10 min)

77 - What are fixtures and their importance in pytest framework (Time: 9 min)

78 - Importance of Conftest file & Scope of fixtures for building Generic fixtures (Time: 13 min)

79 - Introduction to Data driven Fixtures to load data into tests (Time: 10 min)

80 - Parameterizing test with multiple data sets using Fixtures (Time: 14 min)

81 - Generating HTML reports for Pytest Testcases (Time: 6 min)

### Section 19 - Part 2 - Framework Design overview and setting up Browser instance fixtures (Index: 19)

82 - Framework code download (Time: 0 min)

Resource: pythonTesting 2.zip

83 - Overview of the Framework design goals and get started with the Test file (Time: 5 min)

84 - Understand implementing Browser Instance fixture from global conftest file (Time: 12 min)

85 - Command line options to drive the environment variables at run time into test (Time: 10 min)

86 - Understand how setup and teardown works with Pytest fixtures for Browser tests (Time: 7 min)

### Section 20 - Part 3 - Implement Page object Design Pattern and Data driven/parameterization (Index: 20)

87 - Understand how Page object Pattern works and get started with login Page (Time: 19 min)

88 - How to smartly return the object of the Page class from the action method (Time: 14 min)

89 - Apply the Page object design pattern to the complete end to end test (Time: 12 min)

90 - Understand writing test data as Json format and read the file in the test (Time: 11 min)

91 - How to read python object and extract data using Pytest parameterize fixture (Time: 10 min)

### Section 21 - Part 4 - Apply Tags to run selected Tests, Parallel mode and build Utils files (Index: 21)

92 - How to run selected tests in the framework - Use Pytest Mark tags. (Time: 10 min)

93 - Creating custom util methods by applying inheritance in the Page object classes (Time: 11 min)

94 - Debug and run the Pytest framework tests using Pycharm IDE with break points (Time: 3 min)

95 - Running the Selenium Pytest Framework tests in parallel mode using Pytest plugin (Time: 3 min)

### Section 22 - Part 5 - Generate HTML reports, Screenshots & Integrate with CI/CD Jenkins Jobs (Index: 22)

96 - Generate HTML reports for Selenium Framework with fail Screenshots attached (Time: 12 min)

97 - Review of all command line options into one single command and run the Framework (Time: 3 min)

98 - Install and setup Jenkins to trigger the Selenium Python Framework Job (Time: 10 min)

99 - Create Selenium Python Jenkin Job and apply Parameterization build to run build (Time: 10 min)

100 - Code download (Time: 0 min)

Resource: pythonTesting 2.zip

### Section 23 - Most commonly asked Python and Pytest Programming Interview Questions (Index: 23)

101 - How the Interview questions video is designed? (Time: 2 min)

102 - Questions list with Timestap (Time: 1 min)

103 - 75 Mins In detail discussion on most commonly asked Python Interview Questions (Time: 74 min)

### Section 24 - Important Tips for your new job (Must Watch) (Index: 24)

104 - Wrapping up - Thankyou Note (Time: 3 min)

105 - How to Showcase your Python Testing experience? (Time: 1 min)

### Section 25 - Appendix - Understanding Version Control System GIT (Bonus Section) (Index: 25)

106 - Introduction to GIT (Time: 9 min)

107 - Importance of Github and its uses (Time: 9 min)

108 - Schedule CI/CD Jenkins job to auto trigger based on reg ex expression (Time: 6 min)

109 - Creating Git config and repositories (Time: 9 min)

110 - Understanding Staging and commit in git (Time: 12 min)

111 - Add remote repository and push the committed code (Time: 9 min)

112 - End to end working example on Git commands -1 (Time: 16 min)

113 - End to end working example on Git commands -2 (Time: 6 min)

114 - Importance of Branching in GIT (Time: 25 min)

115 - How to resolve Merge conflicts with GIT (Time: 14 min)

### Section 26 - BONUS LECTURE (Index: 26)

116 - Bonus Lecture. What next? (Time: 1 min)