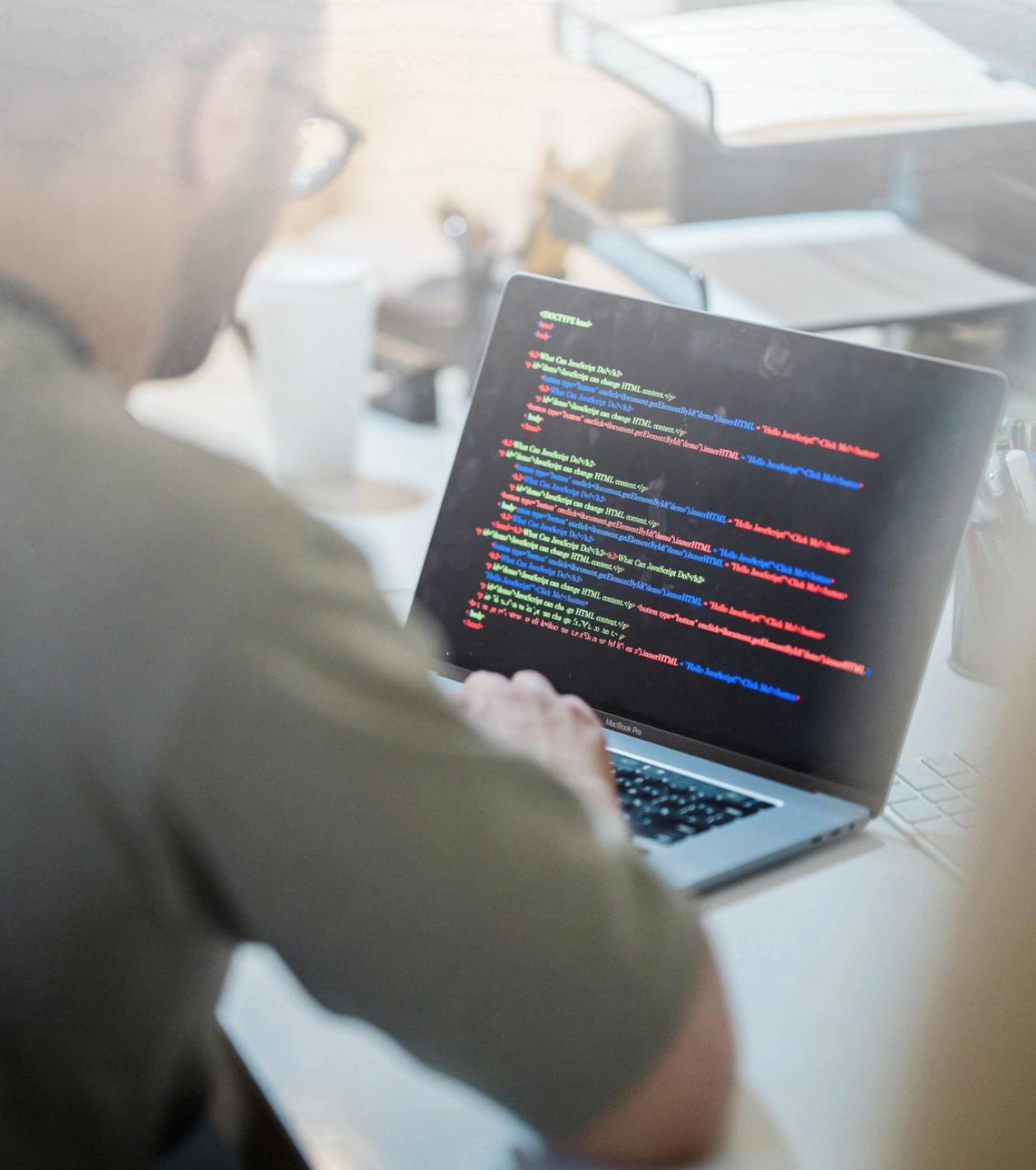


Professional Certificate in

ALGO TRADING USING PYTHON

30 Hours | Live Online | Weekend Sessions



PROGRAM HIGHLIGHTS



Hands-on Exposure

using historical data & online dashboards



Market Practitioners

as program instructors & mentors



Interactive Sessions

in live online mode on weekends



Professional Certificate

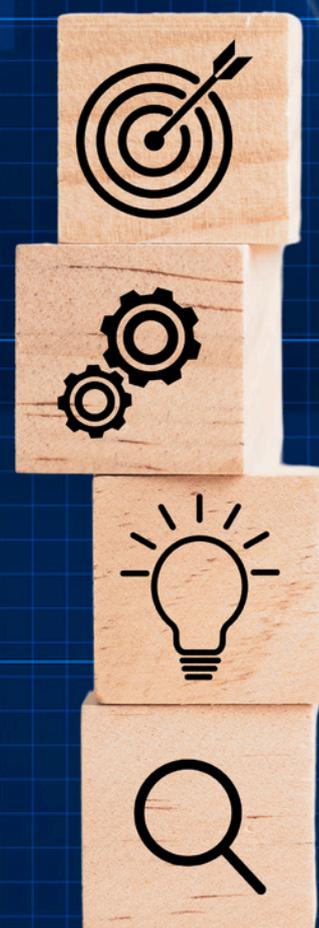
from NAL Academy

IDEAL FOR:

- ✓ Individuals aspiring for opportunities in Front, Middle and Back Office profiles in the financial services industry
- ✓ Individuals looking for trading, investing, or professional advancement

Also suitable for:

- | Tech Professionals
- | Pursuant of professional qualifications like CA, CFA, CMT, CMA, etc.
- | MBA & Engineering Students
- | Academicians



ALGO TRADING USING PYTHON

 Live  Online  30 Hours

Leverage the power of Python to design, code, and backtest algo trading models using historical financial data. This course blends programming, strategy development, and automation of trading & investing.

COURSE OUTLINE

- **Introduction to Python** - Jupyter Notebook | Python Environment on Windows | Programming Basics | Operators | Conditional, String Operations, Array, Loops, Functions and File I/O | Data Collections
- **Main Data Analysis Libraries** - NumPy | Pandas | Yahoo Finance | Import/Export Financial Data | Exploratory Analysis | Volatility Analysis | Technical Indicators | Customized Charts | Pattern Analysis
- **Introduction to Algorithmic Trading** - Introduction | Benefits
- **Capital Market Strategies** - Pair Trading | Sentimental Analysis | News, Time & Volume-based Strategies | Trend-following Strategies
- **Strategy Development & Back-testing** - Common Pitfalls | Parameter Optimization / Overfitting | Transaction Cost Analysis | Performance Measurement Statistics
- **Order Types** - Market Order | Limit Order | Bracket Order | Peg Order
- **AlgoTrading:** System Architecture | Market Data | API Set-up | Connectivity | Operational Considerations | Order & Risk Management
- **Risk Management:** Optimal Capital Allocation | Stages in Risk Management | Risk Management in HFT & AlgoTrading

Learning Outcomes:

- Write Python scripts for financial data processing and EDA
- Create and backtest trading strategies using technical indicators
- Implement order types and broker APIs
- Apply algorithmic risk and money management principles.





The Professional **Certificate of Completion** will be awarded to participants upon securing 60% or above in the final assessment.

Participants who score less than 60% in the final assessment or do not attempt it, will receive a Certificate of Participation in the program name without the Professional Certificate Badge.



PROGRAM FEE

₹ 30,000/- +Taxes

Fee includes:

- After Course Assessment
- Session's Recording
- NAL Academy Premium Digital Courses on Advanced Options and Trading Strategies



- **Prerequisite:** Participants should have foundational knowledge of financial markets
- Access to the **session recordings** for six months

For more information

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✉ gen_pdp@nse.co.in



ABOUT NAL ACADEMY

NAL Academy Limited is a wholly owned subsidiary of the National Stock Exchange of India Ltd. NAL Academy Limited enables the next generation of BFSI and FinTech professionals with industry-aligned skills – through capacity building programs and certification courses, powered by an online examination and certification system. The courses are well-researched and carefully crafted with inputs from the industry professional. NAL Academy Limited works closely with reputed universities and institutions across India in building a competent workforce for the future of BFSI and FinTech. NAL Academy Limited also promotes financial literacy as an essential life skill among youngsters – a contribution towards financial inclusion and wellbeing.

DISCLAIMERS

- It is clarified that NAL Academy does not, in any manner whatsoever, assure, warrant, guarantee, or promise any job/ placement/ advancement to any Participant.
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- Participants will be granted access to course on the digital platforms of NAL Academy and its partner.
- Registration Fees paid by the candidate shall not be refunded under any circumstances after the classes have commenced.
- In case the registered candidate wishes to cancel the registration for the program, he/she is required to inform NAL Academy via a written request or an Email within 2 working days prior to the commencement of the program. If the refund request is approved, the candidate will be refunded 90% of the total course fees paid for the respective program.
- The course is for educational purpose only. It is further clarified that NAL Academy does not, in any manner whatsoever, assure, warrant, guarantee, or promise any Profits/Gains from the market. Market risk is always applicable.
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