Lesson 01 Summary: Python Setup

Key Concepts Review

Module 1: Python Fundamentals

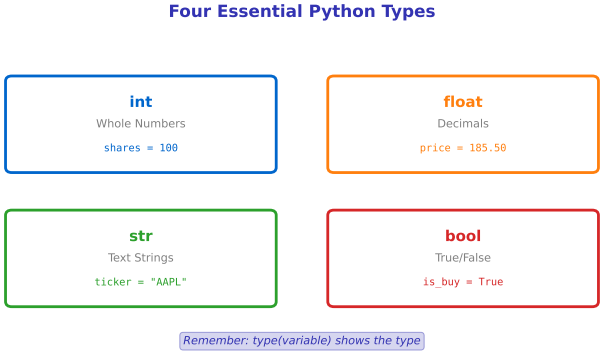
Lesson 01 Overview

What We Covered:

- Installing Anaconda and launching Jupyter Notebook
- Understanding Python's four basic data types
- Variable assignment and naming conventions
- Type conversion between different types
- Why Python beats Excel for data science

Master these fundamentals before moving forward

Key Concept: Four Essential Types



int for counts, float for prices, str for tickers, bool for signals

Data Types in Finance Context

Practical Applications:

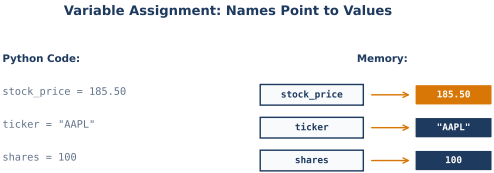
- `int`: Number of shares, trading days, position counts
- `float`: Stock prices, returns, percentages
- `str`: Ticker symbols, company names, dates
- `bool`: Buy/sell signals, profitable status

Example:

```
shares = 100    # int
price = 185.50  # float
ticker = "AAPL" # str
is_buy = True   # bool
```

Choose the right type for each piece of data

Key Concept: Variable Assignment



Variables are names that point to values in memory

Variable Naming Best Practices

Good Names:

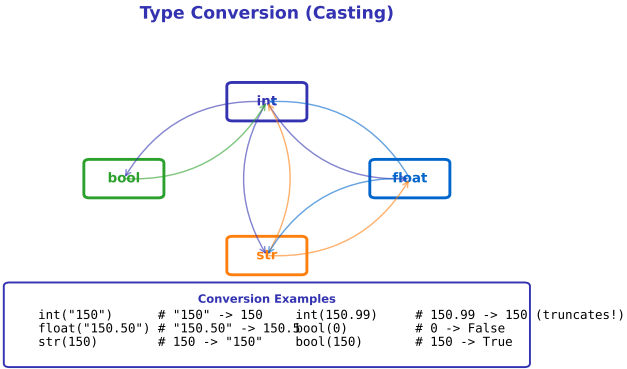
- `stock_price` – descriptive, uses underscore
- `daily_return` – clear purpose
- `is_profitable` – boolean prefix

Avoid:

- `x`, `temp`, `data` – too vague
- `StockPrice` – use underscores, not camelCase
- Starting with numbers: `1st_price`

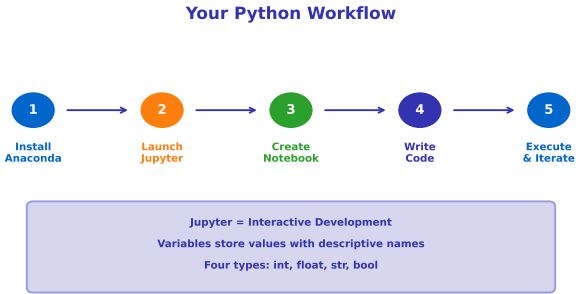
Readable code uses descriptive variable names

Key Concept: Type Conversion



Convert types when reading data from files or APIs

Your Python Workflow



Practice this workflow until it becomes automatic

Quick Reference

Type Checking:
`type(variable)` – Returns the type

Type Conversion:
`int("100")` → 100
`float("3.14")` → 3.14
`str(100)` → "100"
`bool(1)` → True

F-String Formatting:
`f"Price: ${price:.2f}"` – Format with 2 decimals

Boolean Operators:
`and`, `or`, `not`, `==`, `!=`, `<`, `>`, `<=`, `>=`

Bookmark this page for quick reference

Next Steps

Before Next Lesson:

1. Complete the hands-on exercise (stock portfolio)
2. Practice creating variables of each type
3. Experiment with type conversion
4. Try f-string formatting with prices

Coming Up: Lesson 02 – Data Structures
Learn about lists and dictionaries for storing collections of financial data.

Practice is essential – experiment in Jupyter!