

# Introduction to Python

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TECH LECTURE

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# What is Python?

- high level programming language
- emphasizes code readability
- great first coding language
- large standard library and many third party packages

# Philosophy

- Beautiful is better than ugly
- Explicit is better than implicit
- Simple is better than complex
- Complex is better than complicated
- Readability counts

# Installing Python

- use Python shell
- IDE = integrated development environment
- repl.it



# Python 2 vs Python 3

- `__future__`
- `print` vs `print()`
- integer division → float division
  - 2.0:  $3 / 2 = 1$ ,  $3 // 2 = 1$
  - 3.0:  $3 / 2 = 1.5$ ,  $3 // 2 = 1$



# Topics

- Variables and Data Types
- Lists
- For loops
- if Statements
- Dictionaries
- User Input and While loops
- Functions
- Classes