# SI 506: Programming I
# Winter 2021

# Lecture 03

Anthony Whyte <[arwhyte@umich.edu](mailto:arwhyte@umich.edu)>
Lecturer III, School of Information
715 N. University Ave, Ann Arbor, MI 48109
Roumanis Square, 2nd floor ("the loft")

UMSI

# Exercise
Canvas: modules, files; Github 2020Winter repo

lectures/lecture_03/
lecture_03.md
lecture_03.py
lecture_03_solution.py

# Install check-in survey
## email arwhyte@umich.edu if you need the link



SI 506: install check-in

Hi class. The teaching team would like to confirm that you have successfully installed Python 3.9.x, Visual Studio Code and extensions, and, if a Windows 10 user, git for windows. If you have encountered issues that you are unable to solve on your own please request a consult and we will follow up.

This form is automatically collecting email addresses for University of Michigan users.  Change settings

# Terminal: Python Interpreter
start / stop

| Mac/*nix | Win: GitBash | Description |
|----------|--------------|-------------|
| $ python3 | $ python -i | Start |
| >>> quit() | >>> quit() | Stop |

# Zen of Python
## Python console / shell

type after the prompt (>>>):

import this

# Zen of Python (T. Peters, 2004)
## excerpts

Explicit is better than implicit.
Simple is better than complex.
Complex is better than complicated.

Flat is better than nested.
Sparse is better than dense.

Readability counts.

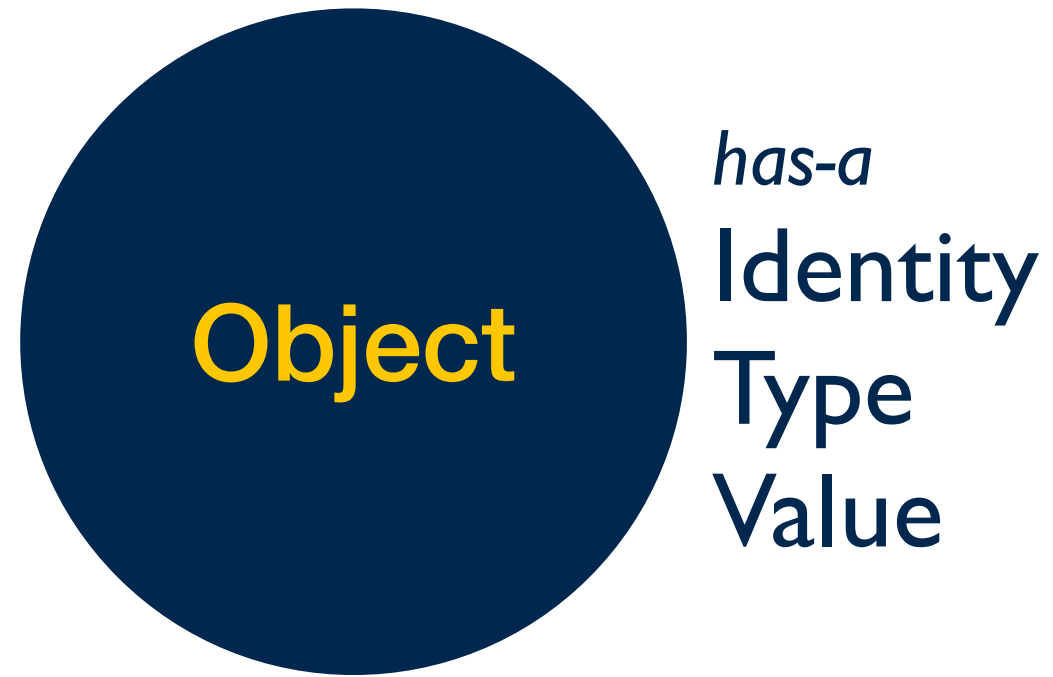Errors should never pass silently. Unless explicitly silenced.

There should be one — and preferably only one — obvious way to do it.

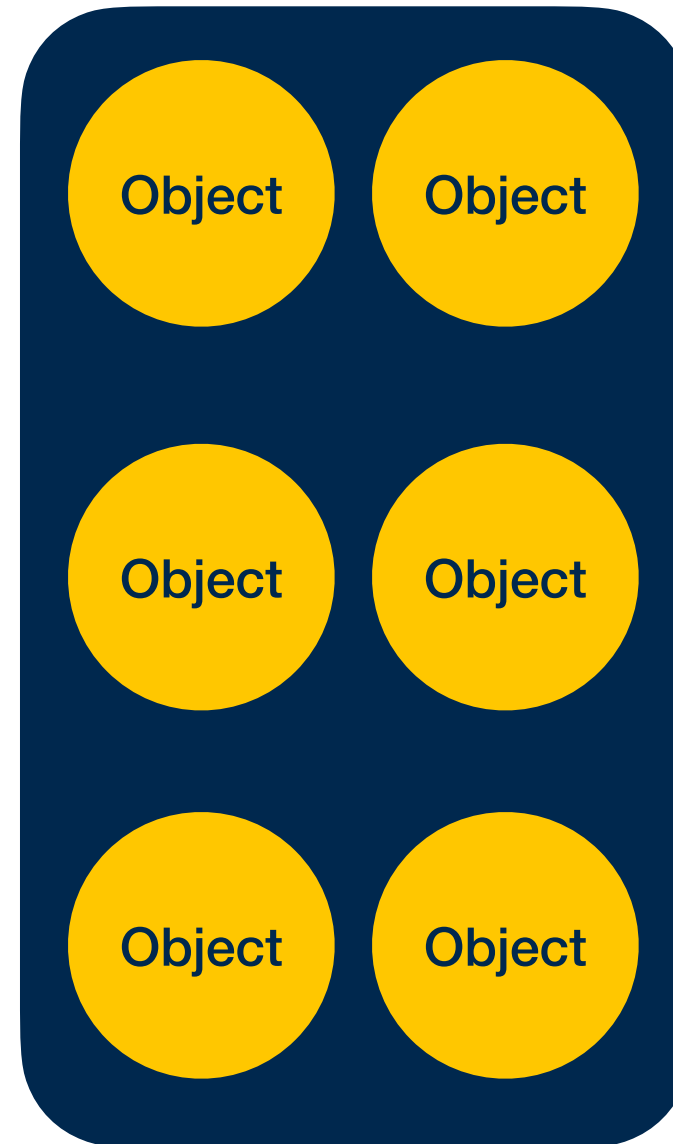If the implementation is hard to explain, it's a bad idea.
If the implementation is easy to explain, it may be a good idea.

# The object
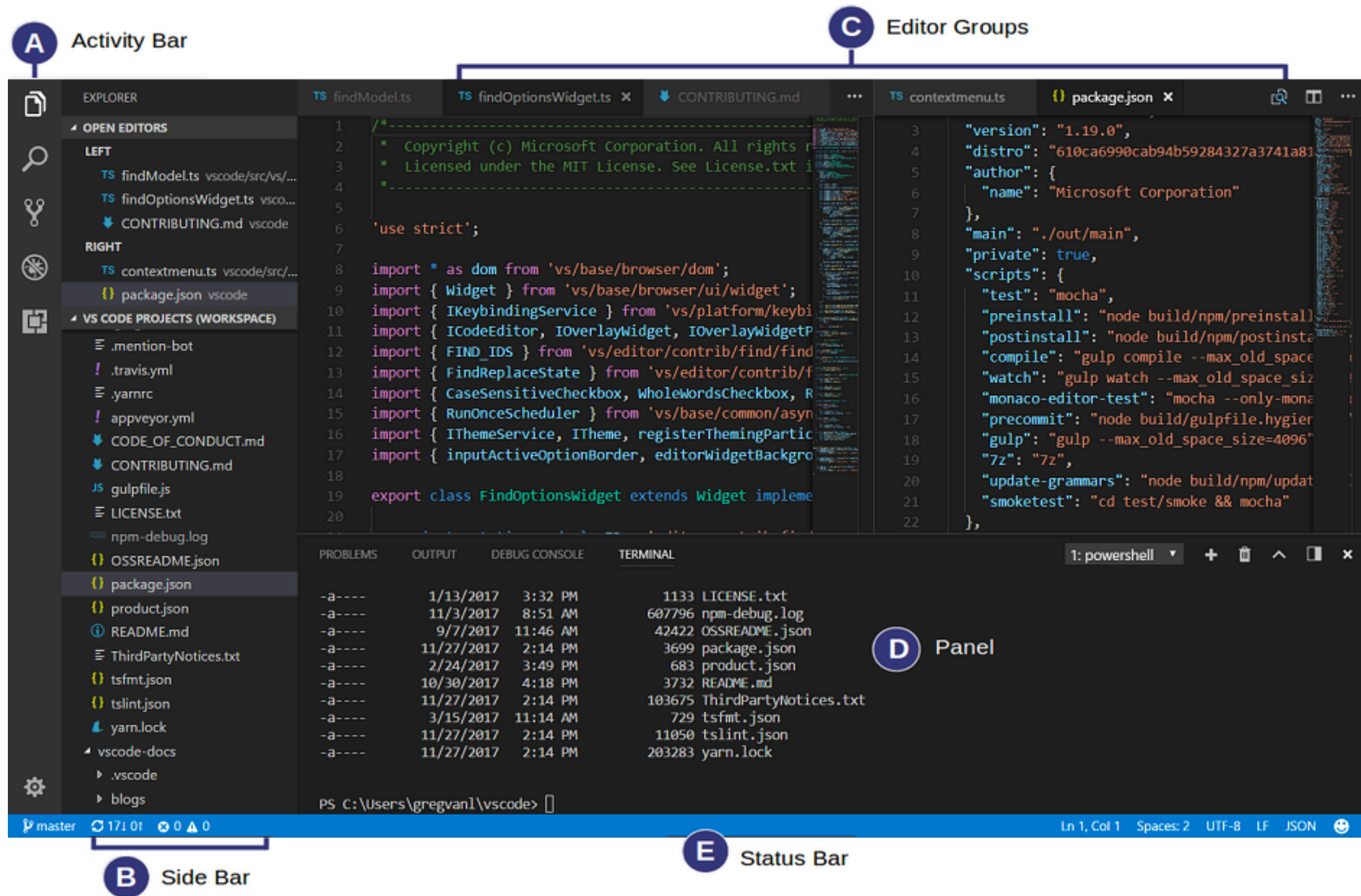## Python's abstraction for data

container object

Object

*has-a*
Identity
Type
Value

Some objects can hold other objects

"Everything is an Object"

Jake VanderPlas, *A Whirlwind Tour of Python (2016)*

UMSI

# VS Code user interface
## https://code.visualstudio.com/docs/getstarted/userinterface

finis

# Slide deck revisions
## errata: corrections and other changes

| Slide no(s). | Fix ver. | Description |
|---|---|---|
| | v1p1 | |

UMSI