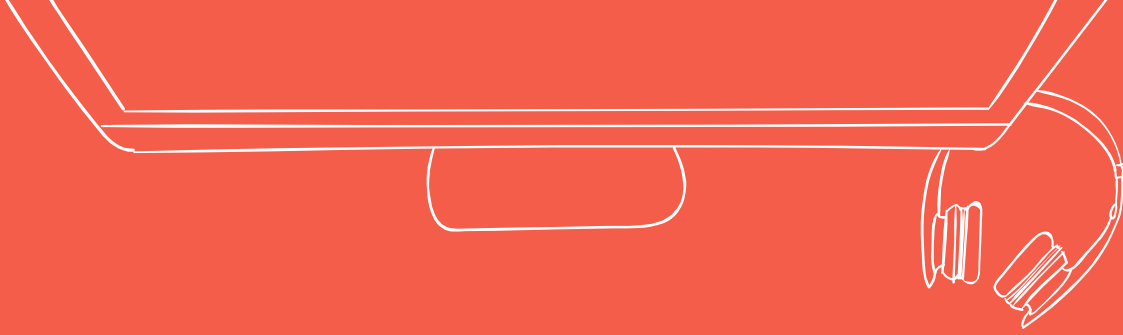



COURSE CURRICULUM



1.

INTRODUCTION TO PROGRAMMING AND PYTHON





2.

GETTING STARTED WITH PYTHON

- ✓ *Python 2 and Python 3*
- ✓ *Installing Python*
- ✓ *IDE's and Text Editors*
- ✓ *Jupyter Notebook*
- ✓ *Git and Github*
- ✓ *Running Your First Program*






3.

BASIC DATA STRUCTURES IN PYTHON



○ Hands-on Tests!

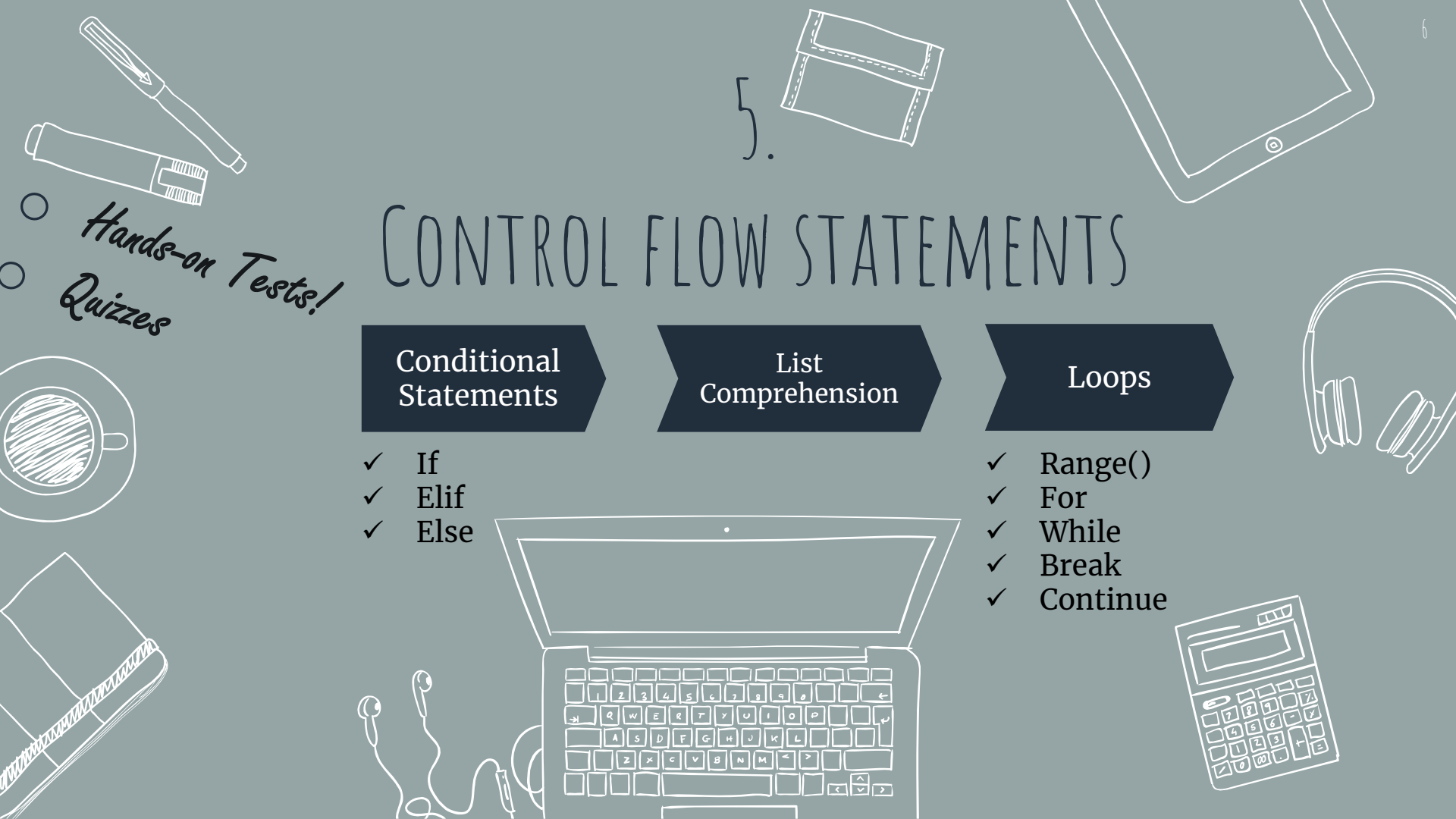
- ✓ Integers
 - ✓ Characters and Strings
 - ✓ Booleans
 - ✓ Lists
 - ✓ Dictionaries
 - ✓ Tuples
- 
- 
- 

4.

PYTHON OPERATORS

- ✓ Arithmetic Operators
- ✓ Comparison Operators
 - ✓ Logical Operators
 - ✓ Bit-Wise Operators
- ✓ Membership Operators
 - ✓ Identity Operators

○ Hands-on Tests!



5.

○ Hands-on Tests!
○ Quizzes

CONTROL FLOW STATEMENTS

Conditional
Statements

- ✓ If
- ✓ Elif
- ✓ Else

List
Comprehension

Loops

- ✓ Range()
- ✓ For
- ✓ While
- ✓ Break
- ✓ Continue

6.

METHODS AND FUNCTIONS – PART 1

- Hands-on Tests!
- Quizzes

- ✓ Input Parameters
 - ✓ Pass

- ✓ Return Value
- ✓ Default Values

- ✓ Built-In Functions

- ✓ Clean Code

- ✓ Function and Method's Definition
- ✓ Why Use Functions?
 - ✓ Scopes
- ✓ Lambda Expressions

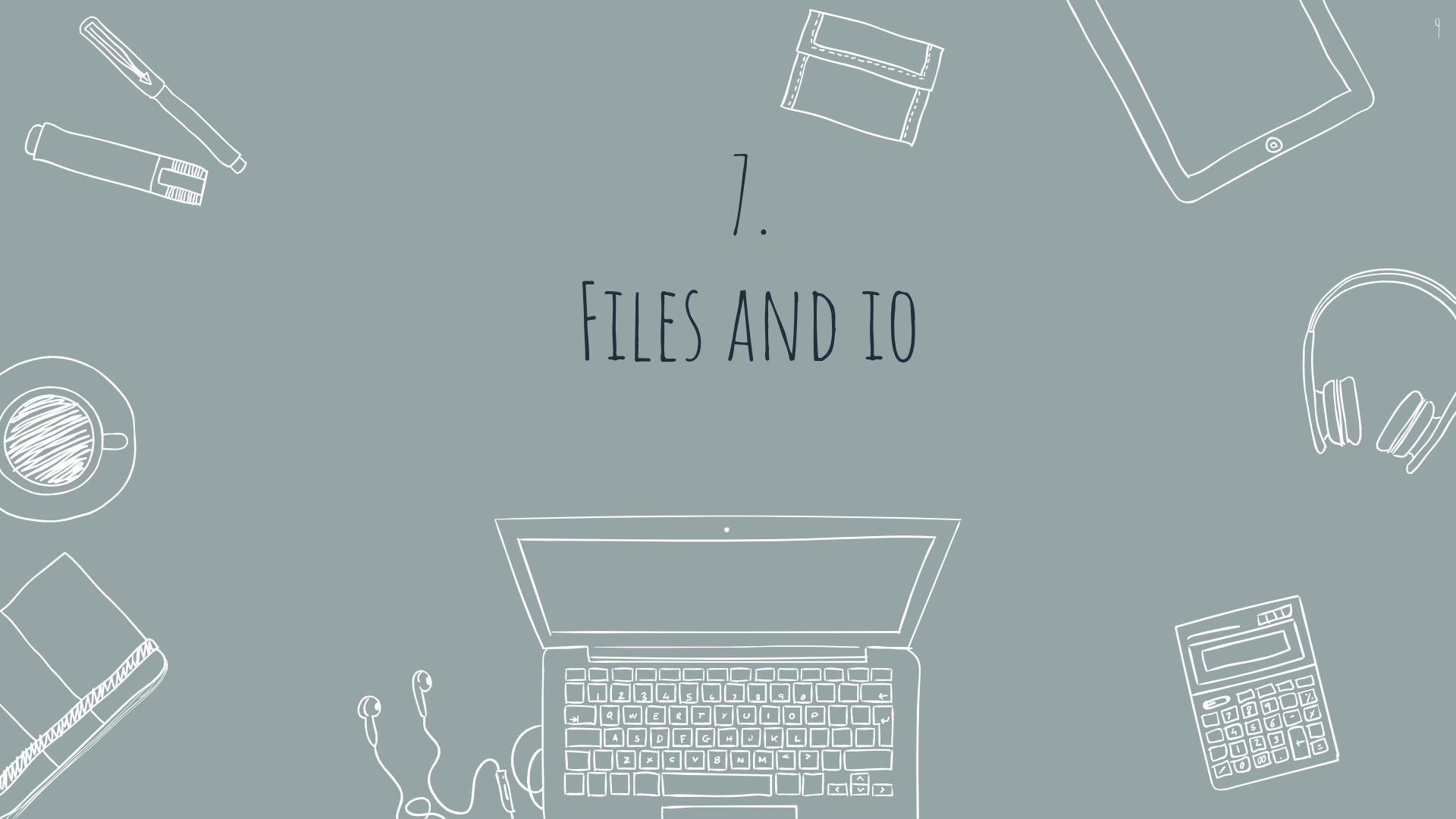


MILESTONE PROJECT 1

- Top-Down Design
- Clean Code Notes

7.

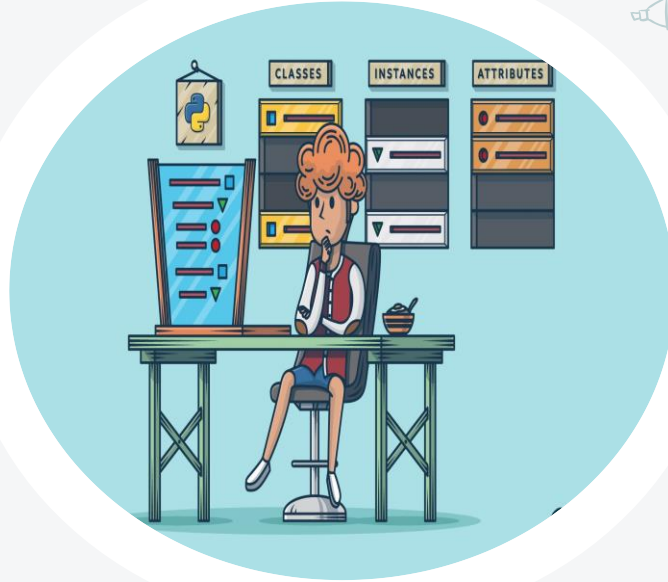
FILES AND IO



8.

ERRORS AND EXCEPTION HANDLING

- ✓ *Different Kinds of Errors*
 - ✓ *Handling Errors*
- ✓ *Try – Except – Else – Finally*



9. OBJECTIVE ORIENTED PROGRAMMING – PART I

An introduction to OOP concept and class definition and structure in Python

+

Some clean code notes



MILESTONE PROJECT 2

- Mainly focused on OOP

10.

METHODS AND FUNCTIONS – PART 2

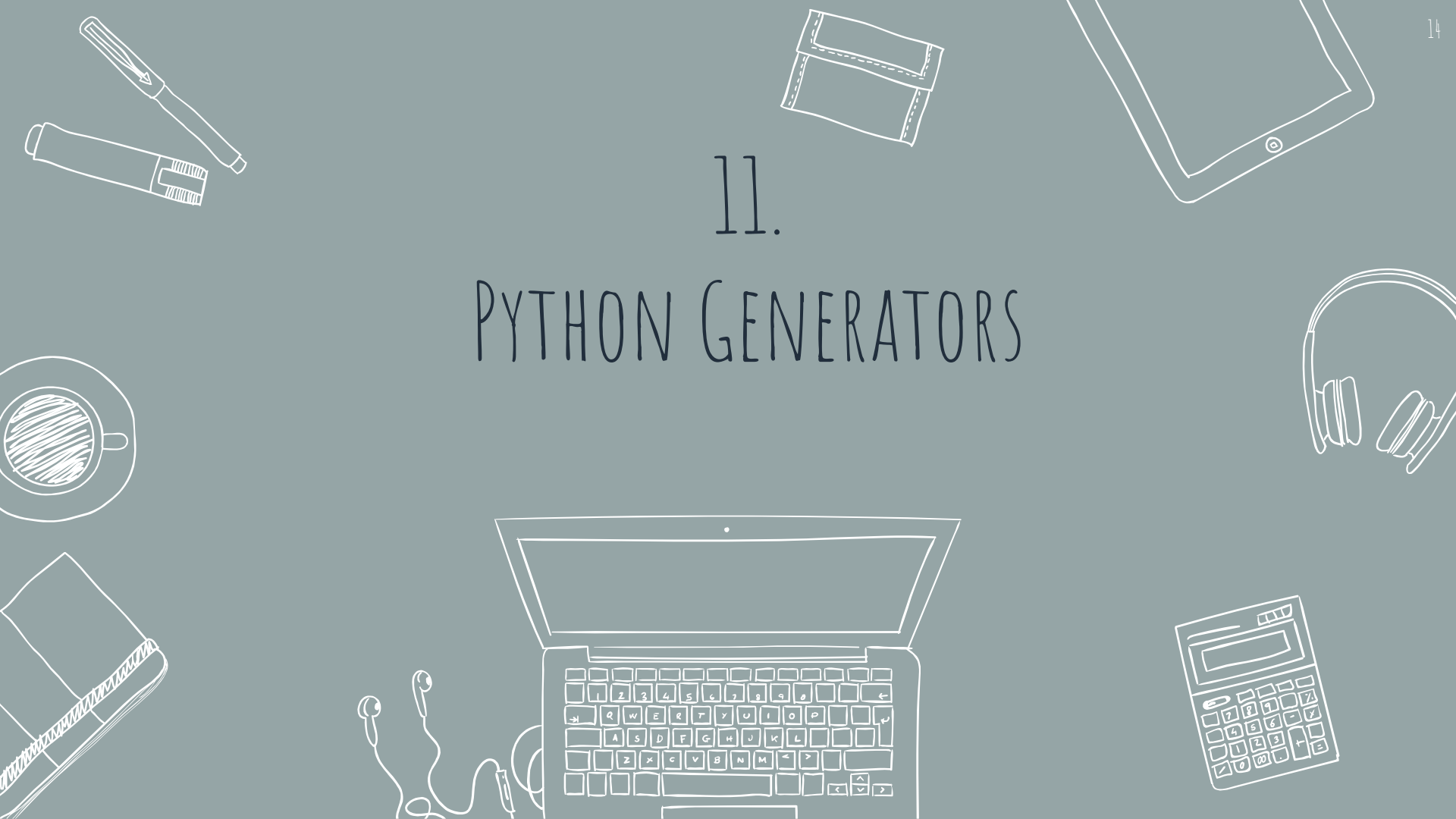
✓ Decorators in Python

✓ Infinite Parameters
✓ *args
✓ **kwargs

✓ Built-In Function – Part 2

11.

PYTHON GENERATORS



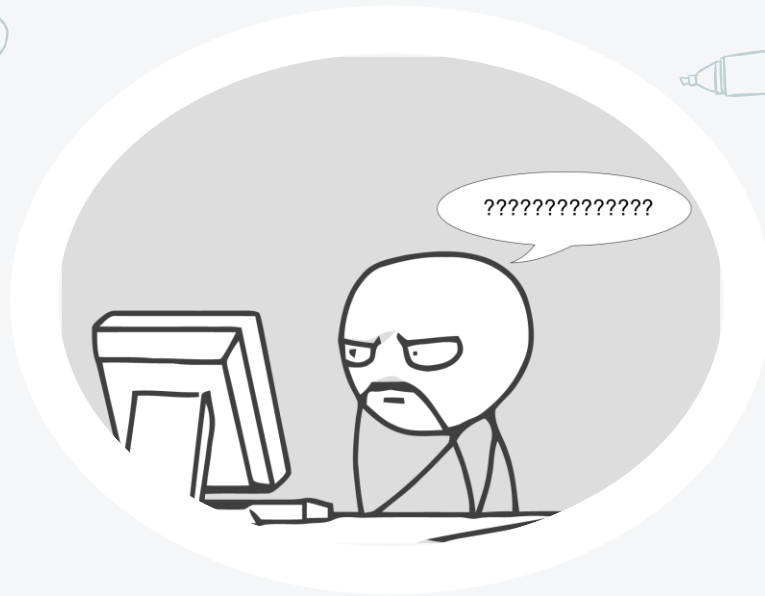
12.

MODULES AND PACKAGES IN PYTHON

- ✓ *How to Install Packages*
- ✓ *Using Modules*
- ✓ *Creating Modules and Packages*

+

Introducing Some Useful Modules



13. OBJECTIVE ORIENTED PROGRAMMING – PART 2

Some more advanced OOP concepts such as Inheritance, Method Overloading in Python

+

introducing some special methods and some abstract concepts



MILESTONE PROJECT 3

