

ENSF 692: Programming Fundamentals for Data Engineers

Welcome to Lab 6! Today we'll explore list comprehensions, documentation practices, and prepare for upcoming deliverables.

 by Sarah Shah

Today's Agenda

1 Upcoming Deliverables

Review assignment and quiz details

3 List Comprehensions

Practice with lists and generator expressions

5 Quiz 1 Practice

Try to solve some of the practice exercises on D2L

2 Modules and Packages

Learn how to use built-in and externally pre-coded functionality

4 Documentation

Learn proper documentation vs. commenting

6 Q&A Session

Open time for questions

Upcoming Deliverables

Assignment 3

Available this Friday

Due June 1st at 11:59 PM

Quiz #1

Next Monday, May 26th in class

Covers material up to Strings and Regular expressions

Multiple choice and matching problems

Practice questions will be uploaded

Modules and Packages

- Python's standard library comes packed with tools for diverse tasks right out of the box
- A vast ecosystem of specialized third-party packages, extending Python's capabilities even further
- We can create our own custom modules to organize and reuse our code efficiently
- Today, we'll explore:
 - how to `import` standard library modules
 - methods for installing third-party packages

List Comprehensions Exercise



Download Materials

Get the Lab 6 code from D2L



Group Work

Develop comprehensions and generator expressions together



Check Solutions

Key will be added after the lab

Documentation vs. Comments

Documentation

Explains how to understand and use your code's functionality

Helps users work with your program

Comments

Useful to other developers continuing your logic

Explains why certain decisions were made

Working with Docstrings

66
99

Create Docstrings

Use triple-double quotes to create doc property



Access Docstrings

Use help() or find direct location



Follow Conventions

Adhere to PEP 0257 standards



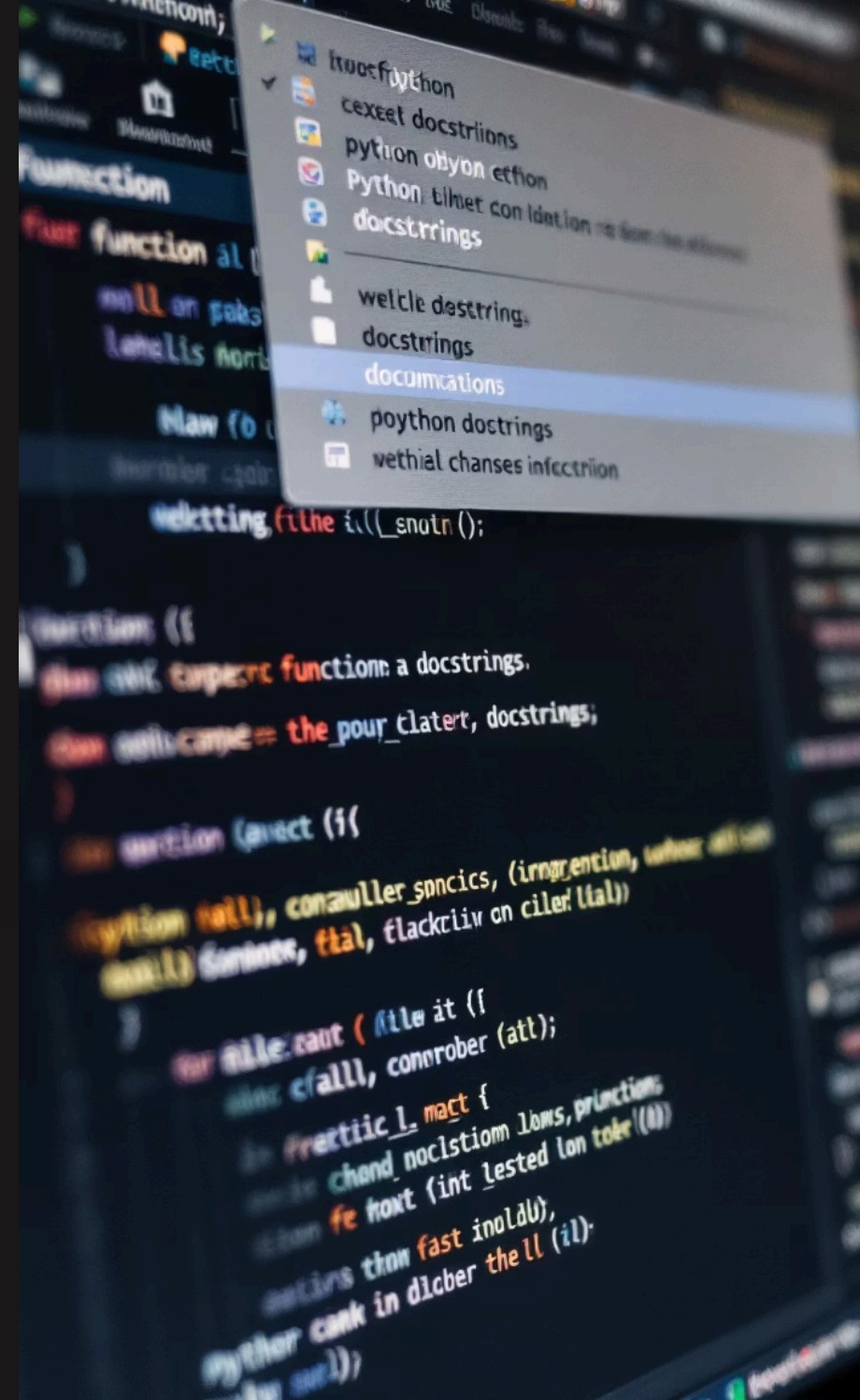
Use Add-ons

Tools like docutils convert to HTML, XML, LaTeX

5

Docstring Formats

Different docstring styles serve various documentation needs.
Choose a consistent format for your project.



Next Steps



Prepare for Quiz

Review materials up to Strings and Regular expressions



Practice Exercises

Complete practice exercises



Start Assignment

Begin Assignment 3 when available