

**≡** Get Programming: Learn to code with Python



## Unit 8. Using libraries to enhance your programs

For the most part, all the programs you've written have relied on combinations of built-in objects and objects that you created yourself. A large part of programming is learning to use code that others have written to your advantage. You can bring their code into your own and then use functions and classes that they've already written. You've done this a little already in some of the capstone projects.

Why would you want to do this? Often, different programmers need to do the same set of tasks. Instead of coming up with their own solutions independently, they can use libraries that contain code to help them achieve their goals. Many languages allow programmers to create libraries. The library may be included in the language, or it might be found on the internet and distributed separately. Libraries are usually bundled to contain functions and classes that are in the same vein.

In this unit, you'll see libraries and common tasks for which they can be used. You'll see three simple libraries: the math library contains functions that help you with mathematical operations, the random library contains functions that allow you to work with random numbers, and the time library contains functions that allow you to use the computer clock to pause your programs or to time them. You'll see two libraries that are more complex: the unittest library will help you build tests so you can check whether your code is behaving as you expect, and the tkinter library will help you add a visual layer to your programs through a graphical user interface.

In the capstone project, you'll write a program that plays a game of tag. Two players will use the keyboard and chase each other on the screen. When one gets close enough to the other, you'll print that they've been tagged.

Recommended / Playlists / History / Topics / Settings / Get the App / Sign Out

PREV Lesson 34. Capstone project: card game

NEXT Lesson 35. Useful libraries