**Python Modules**

In addition to Python’s built-in *functions*, Python distribution has a library of built-in code, called **modules**.

**Python Modules vs. Functions**

One of the differences between **functions** and **modules** is that functions can be *called*by your program using just the function’s name.

Modules, on the other hand, need to be **imported** using the import statement before their use.

**Math Module**

import math

# initializing the number

number = -2.45

# calculating absolute value of number

absolute\_value = math.fabs(number)

# printing the absolute value

print("Absolute value of",number,"is",absolute\_value)

For beginners:

* turtle:

This module allows kids to draw shapes and patterns on the screen by controlling a virtual turtle. It's a great way to introduce programming concepts like loops and functions in a visual and engaging way.

* random:

This module provides functions for generating random numbers, which can be used in games and simulations.

* time:

This module allows you to work with dates and times, which can be useful for creating simple clocks or timers.

* string:

This module provides a set of functions for working with strings, like converting to uppercase or lowercase, splitting into words, etc.

For more advanced learners:

* pygame:

This module allows kids to create games with graphics, sound, and user input. It's a bit more complex, but it opens up a whole world of possibilities for creating interactive projects.

* matplotlib:

This module allows kids to create charts and graphs, which can be useful for data analysis and visualization.

* requests:

This module allows kids to interact with websites and APIs, making it possible to build web applications and retrieve data from the internet.

Game-based learning platforms:

* CheckiO:

This platform offers a series of coding puzzles that kids can solve using Python. It's a fun way to practice programming skills and learn new concepts.

* CodeCombat:

This platform offers a game-like environment where kids can learn Python by writing code to control their character. It's a great way to make learning programming feel like an adventure.