

# Python Modules

- A module is a file containing Python definitions and statements. A module can define functions, classes and variables. A module can also include runnable code.
- Grouping related code into a module makes the code easier to understand and use.
- To use the functionality of one module into another, we must have to import the specific module.

# Loading the module in Python Code

- Python provides two types of statements:
  1. The **import statement**
  2. The **from-import statement**

# The import statement

- The import statement is used to **import all the functionality of one module into another.**
- We can import multiple modules with a single import statement, but a module is loaded once regardless of the number of times, it has been imported into our file.
- Syntax:

**import module1, module2,.....module n**

# The from-import statement

- Instead of importing the whole module, python provides the flexibility to **import only the specific attributes of a module.**
- This can be done by using from import statement.
- Syntax:

**from <module-name> import <name1>,<name2>,...<name n>**

# Python datetime module

- In Python, date and time are **not a data type of its own**, but a **module named datetime** can be imported to work with the date as well as time.
- **Datetime module** comes **built into Python**, so there is no need to install it externally.
- Datetime module **supplies classes** to work with date and time. These classes provide a number of functions to deal with dates, times and time intervals.
- **Date and datetime are an object in Python**, so when you manipulate them, you are actually manipulating objects and not string or timestamps.

Object is simply a collection of data (variables) and methods (functions) that act on those data. And, class is a blueprint for the object.

# Python datetime module

- Commonly used classes in datetime module are:-
  - **date**
    - » A date object represents a date (year, month and day)
  - **time**
    - » Its attributes are hour, minute, second, microsecond and tzinfo.
  - **datetime**
    - » Its a combination of date and time objects.
  - **timedelta**
    - » A timedelta object represents the difference between two dates or times.
  - **tzinfo**
    - » It provides time zone information objects.

# Python get today's date

- `from datetime import date`
- `today = date.today()`
- `print("Today's date:", today)`
  
- `import datetime`
- `date_object = datetime.date.today()`
- `Print(date_object)`



# strftime()

» **strftime** means string from time

- Used to format the date and time in different formats.
- The `strftime()` method returns a string representing date and time using date, time or datetime object.
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