

Datetime Module in Python

This is a documentation for the following web-page :

<https://sites.google.com/view/kolledge/intermediate/datetime>

Contents of the Web Page are as follows :

- **Datetime module in Python programming language** : The datetime module in Python provides classes and functions to work with dates and times. It enables developers to manipulate dates, times, and time intervals, perform arithmetic operations, and format date-time values according to specific requirements, making it a powerful tool for time-related tasks.
- **Using datetime.strftime() in Python programming language** : The 'strftime()' method in Python's datetime module converts a datetime object to a formatted string representation. It allows developers to customize date-time formatting by specifying a format string with various format codes, providing flexibility in displaying date-time information.
- **Using datetime.strptime() in Python programming language** : The 'strptime()' function in Python's datetime module parses a string representation of a date-time value and converts it to a datetime object. This method is useful for converting user-input date-time strings into Python datetime objects for further processing.
- **Working with dates and time in Python** : Python's datetime module offers a comprehensive set of tools to work with dates, times, and time intervals. It allows performing arithmetic operations, comparisons, and manipulations to handle time-related tasks effectively.

- **Get current date-time in Python programming language :** Python's datetime module provides a 'datetime.now()' function to obtain the current date and time as a datetime object. This feature is crucial for tasks that require tracking the current date and time during program execution.
- **Get current time in Python programming language :** Python's datetime module includes a 'datetime.time()' function to retrieve the current time as a time object. It allows developers to access the current time independently of the date, useful for scenarios where only the time component is needed.
- **Timestamp in Python :** A timestamp in Python represents the number of seconds that have elapsed since a specific reference point, typically the epoch (January 1, 1970). Python provides functions to work with timestamps, making it convenient to handle time-related calculations and conversions.
- **Change timestamp to datetime in Python programming language :** Python's datetime module allows converting a timestamp to a corresponding datetime object using the 'datetime.fromtimestamp()' function. This conversion is helpful when dealing with data that uses timestamps and requires further date-time manipulations.
- **Timedelta in Python :** The timedelta class in Python's datetime module represents a duration or time interval. It enables developers to perform arithmetic operations with date-time objects, allowing for precise calculations involving differences between dates and times.
- **Using time module in Python programming language :** The time module in Python offers various functions to work with time-related tasks, such as obtaining the current time, measuring time intervals, and converting time values. It complements the datetime module by focusing on time-specific operations.
- **Using time.sleep() in Python programming language :** The 'time.sleep()' function in Python's time module suspends program execution for a specified number of seconds. It is useful for introducing delays in code execution, scheduling tasks, or controlling the timing of program actions.

- **Timezones in Python** : Python's datetime module supports working with timezones, allowing developers to handle date-time values across different time zones. It provides classes and functions to convert, compare, and adjust date-time objects to specific time zones, essential for global applications with users in different locations.