Python datetime Module - Notes

# 🔹 Purpose

The datetime module supplies classes for manipulating dates and times. It is essential for logging, scheduling, and time-based operations in DevOps and general-purpose scripting.

# 📚 Core Classes

* datetime.date – Represents a date (year, month, day)
* datetime.time – Represents a time (hour, minute, second, microsecond)
* datetime.datetime – Combination of date and time
* datetime.timedelta – Represents duration (difference between dates or times)

# 🕒 Getting Current Date and Time

* datetime.datetime.now() – Current local date and time
* datetime.datetime.utcnow() – Current UTC date and time
* datetime.date.today() – Current local date

# 🧾 Formatting and Parsing

* dt.strftime('%Y-%m-%d %H:%M:%S') – Format datetime to string
* datetime.strptime('2025-07-26', '%Y-%m-%d') – Convert string to datetime

# ⏱️ Timedelta Calculations

* datetime.timedelta(days=1) – One day duration
* now + timedelta(days=7) – One week from now
* now - timedelta(hours=1) – One hour ago

# 📄 Example Snippets

* from datetime import datetime, timedelta
* now = datetime.now()
* print(now.strftime('%Y-%m-%d %H:%M:%S'))
* one\_week\_later = now + timedelta(days=7)

# 🚀 Common Use Cases

* Timestamps in logs and reports
* Filter or delete old files by age
* Calculate schedule delays or durations
* Parse and format datetime values for APIs or databases