Python shutil Module - Notes

# 🔹 Purpose

The shutil module provides a higher-level interface for file operations like copying, moving, removing, and archiving files and directories. It is often used for scripting file system tasks in automation and DevOps.

# ⚙️ Common Functions

* shutil.copy(src, dst) – Copies a file from src to dst
* shutil.copy2(src, dst) – Like copy(), but preserves metadata
* shutil.copytree(src, dst) – Recursively copies a directory tree
* shutil.move(src, dst) – Moves a file or directory
* shutil.rmtree(path) – Deletes a directory tree
* shutil.disk\_usage(path) – Returns total, used, and free disk space

# 🗜️ Archiving Utilities

* shutil.make\_archive(base\_name, format, root\_dir) – Creates archive file (e.g. zip, tar)
* shutil.unpack\_archive(filename, extract\_dir) – Extracts archive to a directory

# 📄 Example Usage

* shutil.copy("file1.txt", "file2.txt")
* shutil.move("/tmp/data.txt", "/backup/")
* total, used, free = shutil.disk\_usage("/")
* shutil.make\_archive("backup", "zip", "/project")

# 🚀 Common Use Cases

* Automated backups of files or directories
* Copying logs or configurations
* Archiving and compressing deployment folders
* Cleaning up temporary files or old backups