

5 Test Runner: Discovery

Test Runner: Discovery

The unittest module includes a [test discovery](#) mechanism based on filename patterns. Allowing multiple test cases inside a module to be run together.

```
usage: python3 -m unittest discover [-h] [-v] [-q] [-s LOCALS] [-t TOP] [-c] [-b] [-k TESTNAMEPATTERNS] [-s START] [-p PATTERN] [-t TOP]

optional arguments:
  -h, --help            show this help message and exit
  -v, --verbose          Verbose output
  -q, --quiet           Quiet output
  -s, --locals           Show local variables in tracebacks
  -t, --failfast         Stop on first fail or error
  -c, --catch           Catch Ctrl-C and display results so far
  -b, --buffer           Buffer stdout and stderr during tests
  -k, --testnamepatt=TESTNAMEPATTERNS
                        Only run tests which match the given substring
  -s, --start=START      Directory to start discovery ('.', default)
  -p, --pattern=PATTERN
                        Pattern to match tests ('test*.py' default)
  -t, --top=TOP           Top-level directory of project (defaults to start directory)

For test discovery all test modules must be importable from the top-level directory of the project.
```

Instructions

Run a real-world test suite and see the results. Discover and run the [unittest module's production test suite](#)

1. Display the test files to be discovered and run.

```
1 ls -lash /usr/local/lib/python3.11/unittest/test
```

The location of `python3.11/unittest/test` is operating system and install specific.

```
total 412K
4.0K drwxr-xr-x 4 root root 4.0K Dec 12 05:00 .
8 drwxr-xr-x 4 root root 256 Dec 12 05:00 ..
4.0K -rw-r--r-- 1 root root 284 Dec 12 05:00 _init_.py
4.0K -rw-r--r-- 1 root root 960 Dec 12 05:00 _main_.py
4.0K drwxr-xr-x 2 root root 4.0K Dec 12 05:00 _pycache_
4.0K -rw-r--r-- 1 root root 2.7K Dec 12 05:00 test_warnings.py
4.0K -rw-r--r-- 1 root root 38 Dec 12 05:00 dummy.py
4.0K -rw-r--r-- 1 root root 3.7K Dec 12 05:00 support.py
28K -rw-r--r-- 1 root root 1.7K Dec 12 05:00 test_assertions.py
12K -rw-r--r-- 1 root root 9.4K Dec 12 05:00 test_async_case.py
12K -rw-r--r-- 1 root root 9.3K Dec 12 05:00 test_broken.py
72K -rw-r--r-- 1 root root 12K Dec 12 05:00 test_case.py
28K -rw-r--r-- 1 root root 34K Dec 12 05:00 test_discovery.py
4.0K -rw-r--r-- 1 root root 5.5K Dec 12 05:00 test_loader.py
15K -rw-r--r-- 1 root root 12K Dec 12 05:00 test_program.py
44K -rw-r--r-- 1 root root 44K Dec 12 05:00 test_runner.py
28K -rw-r--r-- 1 root root 48K Dec 12 05:00 test_suites.py
28K -rw-r--r-- 1 root root 28K Dec 12 05:00 test_skipping.py
18K -rw-r--r-- 1 root root 18K Dec 12 05:00 test_timeout.py
8 drwxr-xr-x 3 root root 272 Dec 12 05:00 unittest
```

< Back

Next >

Instructions

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2. Discover and run tests in the **IDEs terminal** pane.

This command will search the `/usr/local/lib/python3.11/unittest/test` directory for all files that start with `test` and end with a `.py` file extensions.

★ Proceed to the next step ★

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