

# Unittest tutorial

## practical exercise

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## Assignment

Your assignment is to implement a missing unittest for the **phonebook** package.

This exercise is also intended to demonstrate how you can use some common python tools to test and evaluate your python projects.

## Install software tools

The essential tools are,

```
$ sudo apt-get install python-mock
$ sudo apt-get install python-nose
```

Optionally, if you want to compile UML diagrams or documentation,

```
$ sudo apt-get install graphviz
$ sudo apt-get install pylint
$ sudo apt-get install python-coverage
$ sudo apt-get install rst2pdf
```

**rst2pdf** depends on docutils, which should therefore also be installed. With docutils you get more tools, such as **rst2html**.

## run the tests

The **nose** package includes a 'testrunner' called **nosetests**. The testrunner automatically looks up classes that derive from unittest.TestCase executes the tests and reports a result.

Run,

```
$ nosetests -v tests/
```

to execute all the tests found in the tests directory. The following two tests have been defined but not implemented,

```
ERROR:      test_lookup      (test_dummydb_phonebook_layer.TestPhoneBookLayer)      ERROR:
test_terminal_unknown_command (test_phonebook_terminal.TestPhoneBookTerminal)
```

We are going to implement the **TestPhoneBookLayer.test\_lookup** inside the file **tests/test\_dummydb\_phonebook\_layer.py**

## phonebook structure

```
$ pyreverse -o png phonebook/*.py
```

