

Testing in Django

Spoken Tutorial Project

<https://spoken-tutorial.org>

FOSSEE project

<https://fossee.in>

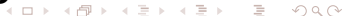
National Mission on Education through ICT

<http://sakshat.ac.in>

**Script: Thiagarajar College of Engineering
& FOSSEE project**

Video: Praveen S, IIT Bombay

August 27, 2019



Learning Objectives

In this tutorial, we will learn to



Learning Objectives

In this tutorial, we will learn to

- **Write tests in Django**



Learning Objectives

In this tutorial, we will learn to

- ▶ **Write tests in** Django
- ▶ **Run the tests in** Django



System Requirements



System Requirements

- ## ► Ubuntu Linux 16.04 OS



System Requirements

- ▶ **Ubuntu Linux 16.04 OS**
- ▶ **Python 3.5**



System Requirements

- ▶ **Ubuntu Linux 16.04 OS**
- ▶ **Python 3.5**
- ▶ **Python 3.4-venv or higher and**



System Requirements

- ▶ **Ubuntu Linux 16.04 OS**
- ▶ **Python 3.5**
- ▶ **Python 3.4-venv or higher and**
- ▶ **gedit Text Editor**



Pre-requisites

To follow this tutorial, you need to know



Pre-requisites

To follow this tutorial, you need to know

- **How to create Models in Django**



Pre-requisites

To follow this tutorial, you need to know

- ▶ **How to create Models in Django**
- ▶ **If not, then please go through the pre-requisite Django tutorials on <https://spoken-tutorial.org>**



Testing in Django

- ▶ **Automated testing is very useful while coding**



Testing in Django

- ▶ **Automated testing is very useful while coding**
- ▶ **We can validate our code during the development stage itself**



Testing in Django

- ▶ **Automated testing is very useful while coding**
- ▶ **We can validate our code during the development stage itself**
- ▶ **It is preferred to write tests in Django using the unit test module**



Assertions

- ▶ Django TestCase **provides custom assertion methods**



Assertions

- ▶ Django TestCase **provides custom assertion methods**
- ▶ **These are useful for testing web applications**



Assertions

- ▶ Here is the reference link to the documentation of methods

<https://docs.djangoproject.com/en/2.1/topics/testing/-tools/#assertions>



Test Database

- ▶ Test runner will create an empty test database with required migrations



Test Database

- ▶ **Test runner will create an empty test database with required migrations**
- ▶ **By default, database will be deleted if all tests are executed or if assertion error is raised**



SetUp and TearDown methods

- ▶ **SetUp and TearDown methods are run before and after every test respectively**



SetUp and TearDown methods

- ▶ **SetUp and TearDown methods are run before and after every test respectively**
- ▶ **This allows you to set up a basic context or environment inside each of the tests**



SetUp method

- ▶ **SetUp method runs before every test**



TearDown method

- ▶ TearDown method will only be called if the SetUp() succeeds



Summary

In this tutorial, we have learnt to

- ▶ **Write tests in Django**
- ▶ **Run tests in Django**



Assignment

- **Write a test case for `Article` model and run the test**



About Spoken Tutorial project

- ▶ Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops and gives certificates
- ▶ For more details, please write to contact@spoken-tutorial.org



Forum for specific questions:

- ▶ Do you have questions in **THIS Spoken Tutorial?**
- ▶ Please visit <https://forums.spoken-tutorial.org>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ Someone from our team will answer them



Forum to answer questions

- ▶ Questions not related to the Spoken Tutorial?
- ▶ Do you have general/technical questions on the Software?
- ▶ Please visit the FOSSEE Forum
<https://forums.fossee.in/>
- ▶ Choose the Software and post your question.



Acknowledgement

Spoken Tutorial Project is funded by

- ▶ **National Mission on Education through ICT, MHRD, Government of India**
- ▶ **More information on this Mission is available at**

<https://spoken-tutorial.org/NMEICT-Intro>



Thank you

This script has been contributed by:

- ▶ **Thiagarajar College of Engineering**
- ▶ **FOSSEE Project, IIT Bombay**
<https://fossee.in/>

**The video has been recorded by Spoken
Tutorial Project, IIT Bombay**

