

ATTACK

DEFENSE

by PentesterAcademy

Name	Django WebApp
URL	https://attackdefense.com/challengedetails?cid=2036
Type	DevOps Basics: Building Project

Important Note: This document illustrates all the important steps required to complete this lab. This is by no means a comprehensive step-by-step solution for this exercise. This is only provided as a reference to various commands needed to complete this exercise and for your further research on this topic. Also, note that the IP addresses and domain names might be different in your lab.

Challenge Description

The project building process is to get the software/webapp ready for deployment. The build process depends on the project and technology/language/framework used.

A Kali machine is provided with Django and project dependencies installed on it. The source code of a Django project is provided on the home directory of the root user.

Objective: Run migrate, test on the source code, and run it on the local machine!

Instructions:

- The source code of web applications is provided at /root/github-repos

Solution

Step 1: Check the contents of the current working directory.

Command: ls -l

```
root@attackdefense:~# ls -l
total 16
drwxr-xr-x 3 root root 4096 Sep 18 04:10 github-repos
-rw-r--r-- 1 root root 293 Feb 7 2019 README
drwxr-xr-x 1 root root 4096 Nov 21 2019 tools
drwxr-xr-x 2 root root 4096 Feb 7 2019 wordlists
root@attackdefense:~#
```

Step 2: Change to the django-todolist directory and check its contents.

Commands:

```
cd github-repos/django-todolist
ls -l
```

```
root@attackdefense:~/github-repos/django-todolist# ls -lah
total 44K
drwxrwxr-x 6 root root 4.0K Sep 18 04:10 .
drwxr-xr-x 3 root root 4.0K Sep 18 04:10 ..
drwxrwxr-x 4 root root 4.0K Sep 18 04:10 accounts
drwxrwxr-x 3 root root 4.0K Sep 18 04:10 api
-rw-rw-r-- 1 root root 1.1K Sep 18 04:10 LICENSE
drwxrwxr-x 6 root root 4.0K Sep 18 04:10 lists
-rw-rw-r-- 1 root root 251 Sep 18 04:10 manage.py
-rw-rw-r-- 1 root root 1.1K Sep 18 04:10 README.md
-rw-rw-r-- 1 root root 40 Sep 18 04:10 requirements.txt
drwxrwxr-x 4 root root 4.0K Sep 18 04:10 tolist
-rw-rw-r-- 1 root root 127 Sep 18 04:10 .travis.yml
root@attackdefense:~/github-repos/django-todolist#
```

Step 3: Run the migrate command to apply the migrations and build the project.

Command: python3 manage.py migrate

```

root@attackdefense:~/github-repos/django-todolist# python3 manage.py migrate
Operations to perform:
  Apply all migrations: admin, auth, contenttypes, lists, sessions
Running migrations:
  Applying contenttypes.0001_initial... OK
  Applying auth.0001_initial... OK
  Applying admin.0001_initial... OK
  Applying admin.0002_logentry_remove_auto_add... OK
  Applying admin.0003_logentry_add_action_flag_choices... OK
  Applying contenttypes.0002_remove_content_type_name... OK
  Applying auth.0002_alter_permission_name_max_length... OK
  Applying auth.0003_alter_user_email_max_length... OK
  Applying auth.0004_alter_user_username_opts... OK
  Applying auth.0005_alter_user_last_login_null... OK
  Applying auth.0006_require_contenttypes_0002... OK
  Applying auth.0007_alter_validators_add_error_messages... OK
  Applying auth.0008_alter_user_username_max_length... OK
  Applying auth.0009_alter_user_last_name_max_length... OK
  Applying auth.0010_alter_group_name_max_length... OK
  Applying auth.0011_update_proxy_permissions... OK
  Applying auth.0012_alter_user_first_name_max_length... OK
  Applying lists.0001_initial... OK
  Applying sessions.0001_initial... OK
root@attackdefense:~/github-repos/django-todolist#

```

Step 4: Run the test command to run the tests accompanying the project.

Command: python3 manage.py test

```

root@attackdefense:~/github-repos/django-todolist# python3 manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
.....
-----
Ran 54 tests in 9.261s

OK
Destroying test database for alias 'default'...
root@attackdefense:~/github-repos/django-todolist#

```


Step 5: Run the project on port 8000 of the local machine.

Command: python3 manage.py runserver

```
root@attackdefense:~/github-repos/django-todolist# python3 manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
September 22, 2020 - 02:24:38
Django version 3.1, using settings 'todolist.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.
[22/Sep/2020 02:25:01] "GET / HTTP/1.1" 200 3685
```

Step 6: Open a new terminal by opening the lab URL in another tab of the browser. The Django project is up and running locally. Check the following URL with curl to confirm the same.

Command: curl localhost:8000

```
root@attackdefense:~# curl localhost:8000
<!DOCTYPE html>
<html lang="en">

<head>
  <!-- Basic Page Needs
  ----- -->
  <meta charset="utf-8">
  <title>Djodolist</title>
  <meta name="description" content="Small todolist app.">
  <meta name="author" content="Christian Rotzoll">
  <!-- Mobile Specific Metas
  ----- -->
  <meta name="viewport" content="width=device-width, initial-scale=1, maximum-scale=1">
  <!-- FONT
```

Django Webapp is deployed locally on port 8000 and we can access it.

Learning

Building and running test server to check the application locally.