

Topic: Car Listing: Deployment using Heroku Part 19E - Environment Variables

Speaker: / Notebook: Django Project: Car Listing



Instead of explicitly adding the sensitive data like SECRET_KEY, DATABASE_URL, EMAIL AND PASSWORD, we can ENVIRONMENT VARIABLES in our .ENV file and setup our SETTINGS.PY to call this.

We can use CONFIG or GETENV FUNCTIONS.

In this project, we use GETENV.

1. Install DOT_ENV. Make sure to add this in your REQUIREMENTS.TXT

```
pip install python-dotenv
```

2. Create a .ENV file and set it up

```
SECRET_KEY=your-secret-key
```

```
DATABASE_URL=postgres://your-database-user:your-database-password@your-database-host:your-database-port/your-database-name
```

A screenshot of a code editor interface. The Explorer pane on the left shows a project structure with folders like 'accounts', 'cars', 'carzone', and 'templates'. The 'templates' folder is expanded, and the '.env' file is highlighted with a red box. The main editor area shows the content of the '.env' file, with four lines of environment variables: 'SECRET_KEY=7...', 'DATABASE_URL=p...', 'EMAIL_HOST_USER=r...', and 'EMAIL_HOST_PASSWORD=x...'. The sensitive values are redacted with black boxes. The file name '.env' is also highlighted with a red box in the Explorer pane.

3. Modify your SETTINGS.PY

```
import os
import dj_database_url
from dotenv import load_dotenv

# Load environment variables from .env file
load_dotenv()
```

```
# SECURITY WARNING: keep the secret key used in production secret!
SECRET_KEY = os.getenv('SECRET_KEY')

# Database
DATABASES = {
    'default': dj_database_url.config(default=os.getenv('DATABASE_URL'))
}
```

#Email configurations

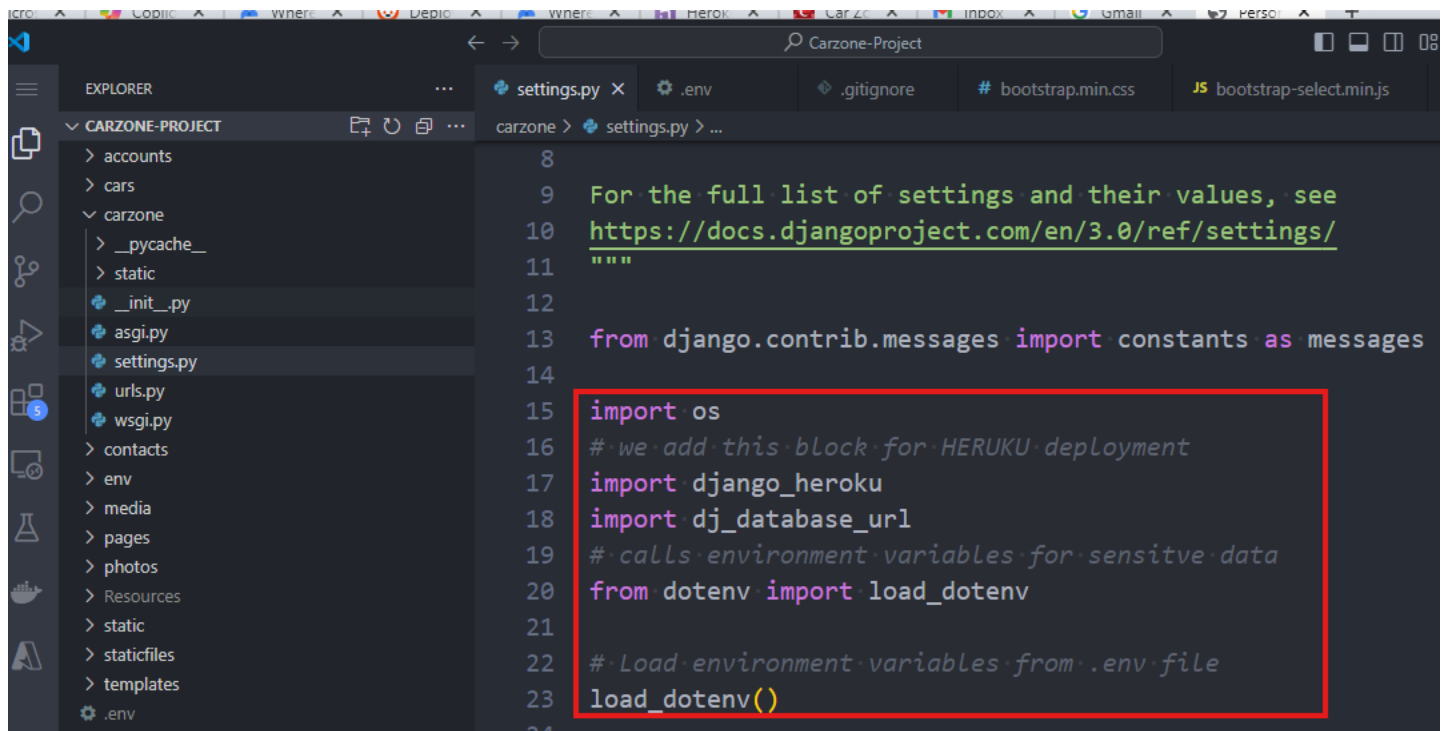
```
EMAIL_HOST = 'smtp.gmail.com'

EMAIL_PORT = 587

EMAIL_HOST_USER = os.getenv('EMAIL_HOST_USER')

EMAIL_HOST_PASSWORD = os.getenv('EMAIL_HOST_PASSWORD')

EMAIL_USE_TLS = True
```



```
8
9 For the full list of settings and their values, see
10 https://docs.djangoproject.com/en/3.0/ref/settings/
11 """
12
13 from django.contrib.messages import constants as messages
14
15 import os
16 # we add this block for HERUKU deployment
17 import django_heroku
18 import dj_database_url
19 # calls environment variables for sensitive data
20 from dotenv import load_dotenv
21
22 # Load environment variables from .env file
23 load_dotenv()
24
```

```
27
28
29 # Quick-start development settings - unsuitable for
30 # See https://docs.djangoproject.com/en/3.0/howto
31
32 # SECURITY WARNING: keep the secret key used in p
33 SECRET_KEY = os.getenv('SECRET_KEY')
34
```

```
115
116 # HEROKU CREDENTIALS AND USE OF ENVIRONMENT VARIABLES PROVIDED
117 DATABASES = {'default': dj_database_url.config(
118     ... default=os.getenv('DATABASE_URL'))}
119
```

```
192
193 # Email Setup
194 EMAIL_HOST = 'smtp.gmail.com'
195 EMAIL_PORT = 587
196 EMAIL_HOST_USER = os.getenv('EMAIL_HOST_USER')
197 EMAIL_HOST_PASSWORD = os.getenv('EMAIL_HOST_PASSWORD')
198 EMAIL_USE_TLS = True
```

4. In your .GITIGNORE file, make sure .ENV is included so that when you pushed your files/folders to HEROKU SERVER, it's not added.

5. Now push all the changes to our Heroku server:

```
GIT STATUS
```

```
GIT ADD -A
```

```
GIT COMMIT -M "Your comment"
```

```
GIT PUSH HEROKU MAIN
```

6. To make sure that Heroku doesn't expose your sensitive data, we add this code in our Heroku CLI terminal

```
heroku config:set SECRET_KEY='your-secret-key'
heroku config:set
DATABASE_URL='postgres://your-database-user:your-database-password@your-database-host:your-database-port/your-database-name'

heroku config:set EMAIL_HOST_USER = 'your-email_address'

heroku config:set EMAIL_HOST_PASSWORD = 'your-email_password'
```

```
MINGW64:/c/Users/Rosilie/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project
remote: No migrations to apply.
remote: Waiting for release... done.
To https://git.heroku.com/lit-cliffs-98316.git
 6842bc5..5370b05  main -> main
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ heroku config:set SECRET_KEY=79wc33d16fo^co%2d%02@vq%a6k8_5er=@(vxi=383!g%$re$u
heroku config:set SECRET_KEY=79wc33d16fo^co%2d%02@vq%a6k8_5er=@(vxi=383!g%$re$u
bash: syntax error near unexpected token `('
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ heroku config:set SECRET_KEY='7[REDACTED]u'
Setting SECRET_KEY and restarting lit-cliffs-98316... done, v11
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ heroku config:set DATABASE_URL='[REDACTED]'
Setting DATABASE_URL and restarting lit-cliffs-98316... done, v11
DATABASE_URL: postgres://uacp2joia9miv5:pfdb946d08413449c74196a586d2757b3a0366f1cd746406af51e9f57efd69ada@c81j0
er-czrs8kj4isg7.us-east-1.rds.amazonaws.com:5432/d44bqh6timinvv
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ heroku config:set EMAIL_HOST_USER='[REDACTED]'
Setting EMAIL_HOST_USER and restarting lit-cliffs-98316... done, v12
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ heroku config:set EMAIL_HOST_PASSWORD='[REDACTED]'
Setting EMAIL_HOST_PASSWORD and restarting lit-cliffs-98316... done, v13
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 15 commits.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ heroku open
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$
```

7. Using HEROKU OPEN, you can load your app again and test for database functionality.

8. Since our environment variables are all successfully setup, make sure that we update our GITHUB REPO. So we use HEROKU LOGOUT to logout from Heroku server. Then, in the terminal we issue our commands:

GIT STATUS

GIT ADD -A

GIT COMMIT -M "Your comment"

GIT PUSH ORIGIN MAIN

```
MINGW64~/Users/Rosilie/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ heroku open
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ heroku logout
Logging out... done
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ heroku open
heroku: Press any key to open up the browser to login or q to exit: q
» Error: quit
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 15 commits.
(use "git push" to publish your local commits)

nothing to commit, working tree clean
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ git add -A
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ git commit -m "Set up environment variables"
On branch main
Your branch is ahead of 'origin/main' by 15 commits.
(use "git push" to publish your local commits)

nothing to commit, working tree clean
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$ git push origin main
Enumerating objects: 119, done.
Counting objects: 100% (119/119), done.
Delta compression using up to 8 threads
Compressing objects: 100% (108/108), done.
Writing objects: 100% (111/111), 2.78 MiB | 3.06 MiB/s, done.
Total 111 (delta 45), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (45/45), completed with 7 local objects.
To https://github.com/RosyCodes/carzone-listing.git
 a284743..5370b05 main -> main
(env)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Carzone-Project (main)
$
```

9. View your Github for the latest updates.