

Django Episode II

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Contents

Chapter 1

- Install Django and Python
- Config Django

Chapter 2

- Config the apps
- Create database models
- Using DB Browser

Chapter 3

- Create Login - Logout

Chapter 1

- Create directory crm
- Install python
- Create python environment
 - crm>python3 -m venv crmenv
 - crm>dir
- Activate env
 - crm>crmenv/scripts/activate
- Install Django
 - crm>pip install django

```
PS D:\crm> dir
```

```
Directory: D:\crm
```

Mode	LastWriteTime	Length	Name
d-----	11/6/2024 4:03 PM		crmenv

```
PS D:\crm> crmenv/scripts/activate
(crmenv) PS D:\crm>
```

Chapter 1

- Create crm project “crm”
 - crm>Django-admin startproject crm .
- Start app “app”
 - crm>django-admin startapp app
- Connect to database (SQLite)
 - crm>python3 manage.py migrate

```
• (crmenv) PS D:\crm> django-admin startproject crm .  
• (crmenv) PS D:\crm> dir
```

Directory: D:\crm

Mode	LastWriteTime	Length	Name
d-----	11/6/2024 4:09 PM		crm
d-----	11/6/2024 4:03 PM		crmenv
-a----	11/6/2024 4:09 PM	681	manage.py

```
• (crmenv) PS D:\crm> python3 manage.py migrate  
Operations to perform:  
  Apply all migrations: admin, auth, contenttypes, 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 sessions.0001_initial... OK
```

Chapter 1

- Create superuser
 - `crm>python3 manage.py createsuperuser`
- Create app “sales”
 - `crm>python3 manage.py startapp sales`
- Create app “reports”
 - `crm>python3 manage.py startapp reports`
- Create app “profiles”
 - `crm>python3 manage.py startapp profiles`

```
(crmentv) PS D:\crm> python3 manage.py createsuperuser
Username (leave blank to use 'admin'): admin
Email address:
Password:
Password (again):
Superuser created successfully.
```

```
(crmentv) PS D:\crm> python3 manage.py startapp sales
(crmentv) PS D:\crm> dir
```

Directory: D:\crm

Mode	LastWriteTime	Length	Name
d----	11/6/2024 4:16 PM		crm
d----	11/6/2024 4:03 PM		crmentv
d----	11/6/2024 4:22 PM		sales
-a----	11/6/2024 4:19 PM	131072	db.sqlite3
-a----	11/6/2024 4:09 PM	681	manage.py

```
(crmentv) PS D:\crm> python3 manage.py startapp profiles
(crmentv) PS D:\crm> dir
```

Directory: D:\crm

Mode	LastWriteTime	Length	Name
d----	11/6/2024 4:16 PM		crm
d----	11/6/2024 4:03 PM		crmentv
d----	11/6/2024 4:27 PM		profiles
d----	11/6/2024 4:24 PM		reports
d----	11/6/2024 4:22 PM		sales
-a----	11/6/2024 4:19 PM	131072	db.sqlite3
-a----	11/6/2024 4:09 PM	681	manage.py

Chapter 1

- Create app “products”
 - `crm>python3 manage.py startapp products`
- Create app “customers”
 - `crm>python3 manage.py startapp customers`
- Runserver
 - `crm>python3 manage.py runserver`

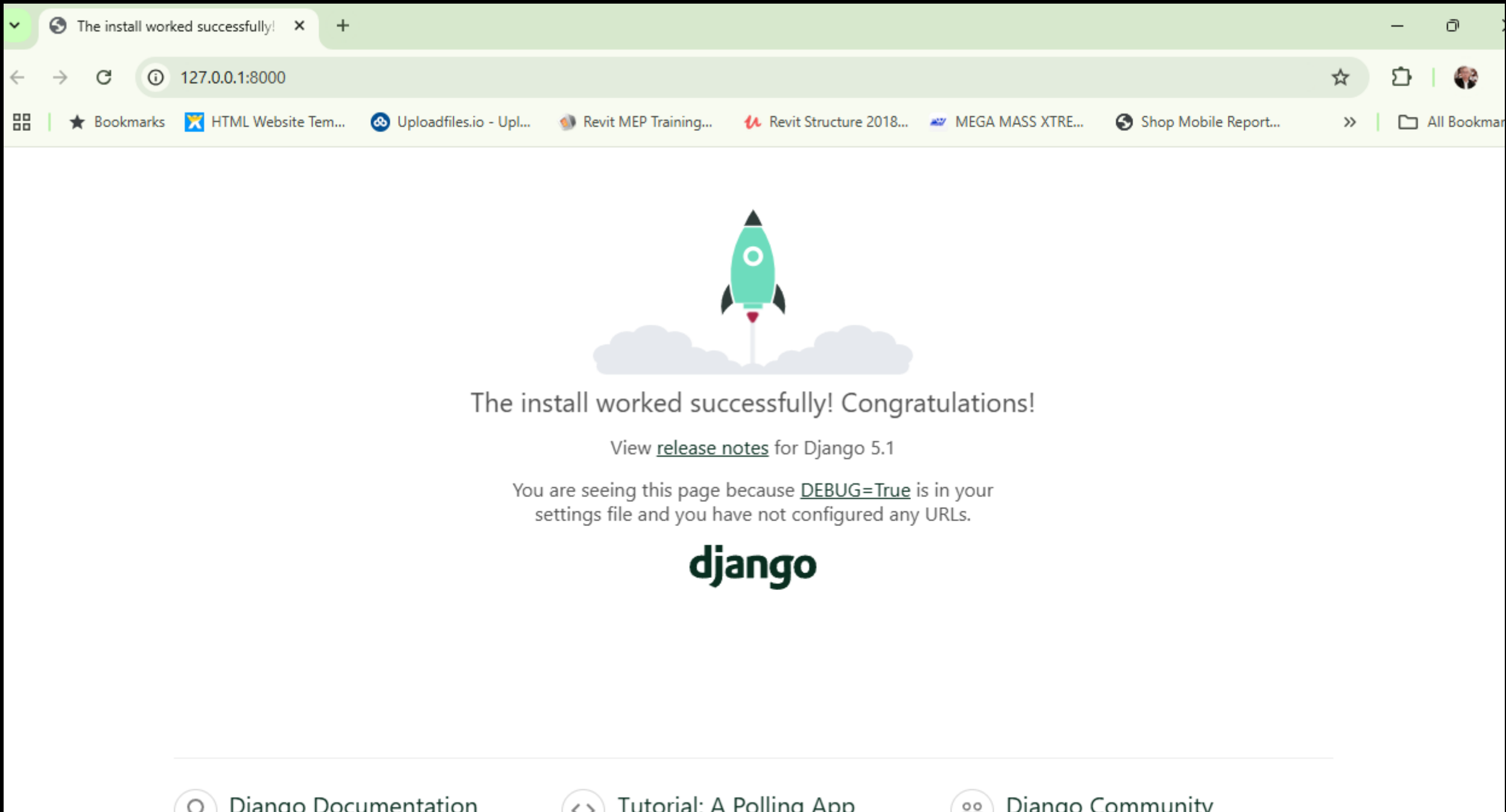
- (crmenu) PS D:\crm> python3 manage.py startapp products
- (crmenu) PS D:\crm> python3 manage.py startapp customers
- (crmenu) PS D:\crm> dir

Directory: D:\crm

Mode	LastWriteTime		Length	Name
----	-----		-----	----
d-----	11/6/2024	4:16 PM		crm
d-----	11/6/2024	4:03 PM		crmenu
d-----	11/6/2024	4:28 PM		customers
d-----	11/6/2024	4:28 PM		products
d-----	11/6/2024	4:27 PM		profiles
d-----	11/6/2024	4:24 PM		reports
d-----	11/6/2024	4:22 PM		sales
-a----	11/6/2024	4:19 PM	131072	db.sqlite3
-a----	11/6/2024	4:09 PM	681	manage.py

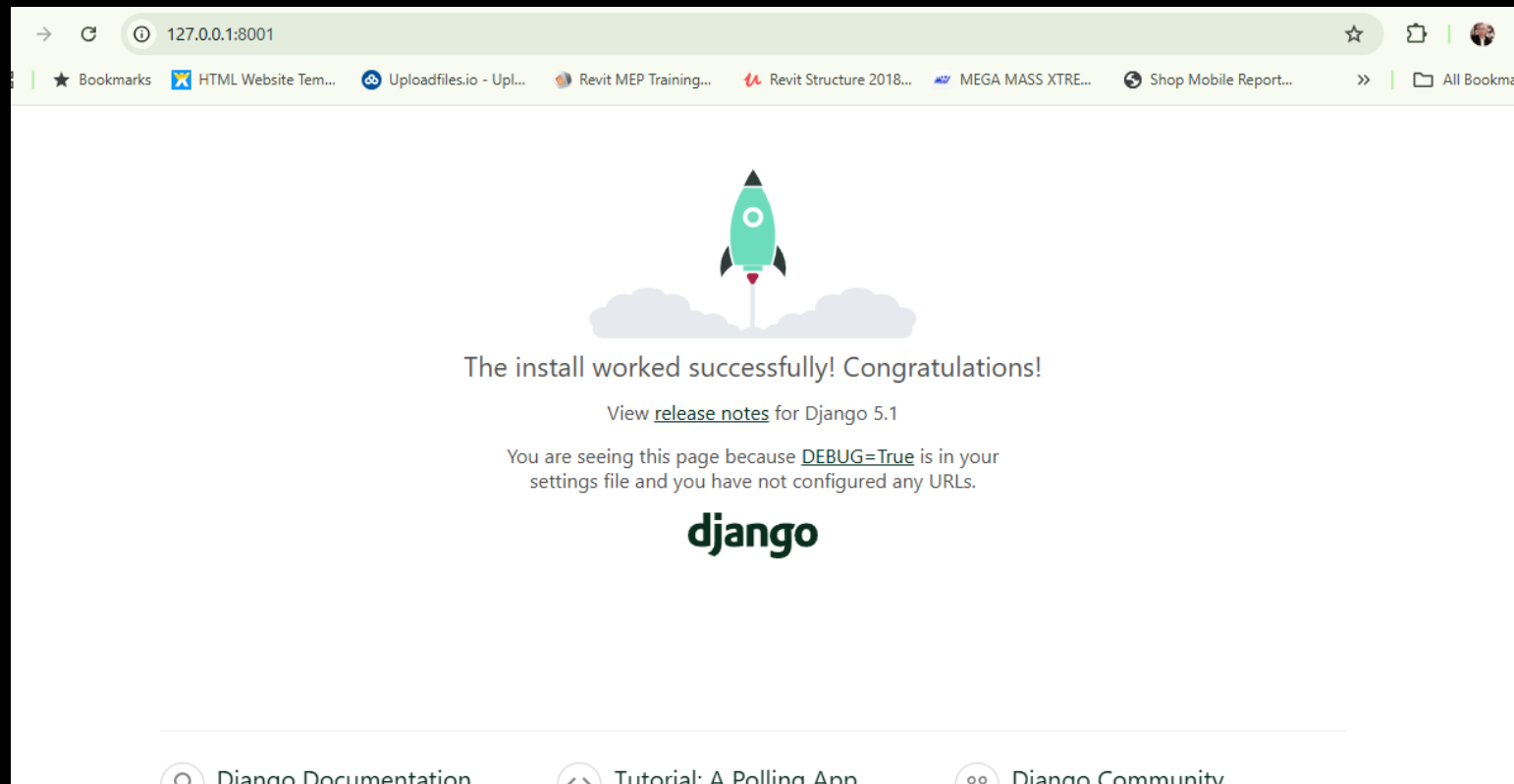
- (crmenu) PS D:\crm> python3 manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
November 06, 2024 - 16:30:30
Django version 5.1.2, using settings 'crm.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.



Chapter 1

- Runserver in port 8001
 - `crm>python3 manage.py runserver 8001`



Django administration

Username:

Password:

Site administration

AUTHENTICATION AND AUTHORIZATION		
Groups	+ Add	✎ Change
Users	+ Add	✎ Change

Recent actions

My actions

None available

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

Change user

admin HISTORY

Username:

admin

Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.

Password:

algorithm: pbkdf2_sha256 iterations: 870000 salt: 8euQc4***** hash: EkQtsK*****

Reset password

Raw passwords are not stored, so there is no way to see the user's password.

Personal info

First name:

Last name:

More installations

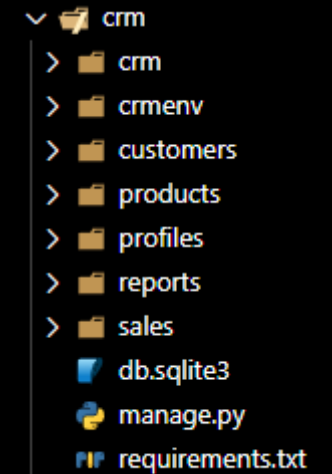
- (crmenu) PS D:\crm> pip install pillow django-crispy-forms
- (crmenu) PS D:\crm> pip install matplotlib seaborn pandas xhtml2pdf

• (crmenu) PS D:\crm> pip freeze

```
arabic-reshaper==3.0.0
asgiref==3.8.1
asn1crypto==1.5.1
certifi==2024.8.30
cffi==1.17.1
chardet==5.2.0
charset-normalizer==3.4.0
click==8.1.7
colorama==0.4.6
contourpy==1.3.0
cryptography==43.0.3
cssselect2==0.7.0
cyclr==0.12.1
Django==5.1.3
django-crispy-forms==2.3
fonttools==4.54.1
html5lib==1.1
idna==3.10
kiwisolver==1.4.7
lxml==5.3.0
```

```
matplotlib==3.9.2
numpy==2.1.3
oscrypto==1.3.0
packaging==24.1
pandas==2.2.3
pillow==11.0.0
pycparser==2.22
pyHanko==0.25.1
pyhanko-certvalidator==0.26.3
pyparsing==3.2.0
pypdf==5.1.0
python-bidi==0.6.3
python-dateutil==2.9.0.post0
pytz==2024.2
PyYAML==6.0.2
qrcode==8.0
reportlab==4.2.5
requests==2.32.3
seaborn==0.13.2
six==1.16.0
sqlparse==0.5.1
```

```
svglib==1.5.1
tinycss2==1.4.0
tzdata==2024.2
tzlocal==5.2
uritools==4.0.3
urllib3==2.2.3
webencodings==0.5.1
xhtml2pdf==0.2.16
```



(crmenu) PS D:\crm> pip freeze > requirements.txt

>pip install -r requirements.txt

For repeat installation in another env

Chapter 2 : Config the apps

Setting.py



The screenshot shows the Visual Studio Code interface. On the left, the 'EXPLORER' sidebar displays the project structure under 'CRM (WORKSPACE)'. The 'crm' folder is expanded, showing subfolders 'crm' and 'crmenv', and files like 'urls.py', 'wsgi.py', 'db.sqlite3', 'manage.py', and 'requirements.txt'. The 'settings.py' file is highlighted. On the right, the code editor shows the content of 'settings.py' with line numbers 31 to 52. The code defines 'INSTALLED_APPS' and 'CRISPY_TEMPLATE_PACK'.

```
31 # Application definition
32
33 INSTALLED_APPS = [
34     'django.contrib.admin',
35     'django.contrib.auth',
36     'django.contrib.contenttypes',
37     'django.contrib.sessions',
38     'django.contrib.messages',
39     'django.contrib.staticfiles',
40     #our apps are here under
41     'customers',
42     'products',
43     'profiles',
44     'reports',
45     'sales',
46
47     #3rd party
48     'crispy_forms',
49 ]
50
51 CRISPY_TEMPLATE_PACK = 'bootstrap4'
52
```

Create templates directory

```
src
├── crm
├── crmenv
├── customers
├── products
├── profiles
├── reports
├── sales
├── template
├── db.sqlite3
├── manage.py
└── requirements.txt

55     django.middleware.common.CommonMiddleware ,
56     'django.middleware.csrf.CsrfViewMiddleware',
57     'django.contrib.auth.middleware.AuthenticationMiddleware',
58     'django.contrib.messages.middleware.MessageMiddleware',
59     'django.middleware.clickjacking.XFrameOptionsMiddleware',
60 ]
61
62 ROOT_URLCONF = 'crm.urls'
63
64 TEMPLATES = [
65     {
66         'BACKEND': 'django.template.backends.django.DjangoTemplates',
67         'DIRS': [BASE_DIR/'templates'],
68         'APP_DIRS': True,
69         'OPTIONS': {
70             'context_processors': [
71                 'django.template.context_processors.debug',
72                 'django.template.context_processors.request',
73                 'django.contrib.auth.context_processors.auth',
74                 'django.contrib.messages.context_processors.messages',
75             ],
76         },
77     ],
```

EXPLORER

...

settings.py

style.css

base.html

navbar.html

CRM (WORKSPACE)

src

crm

__pycache__

__init__.py

asgi.py

settings.py

urls.py

wsgi.py

crmenuv

customers

media

products

profiles

reports

sales

static

css

style.css

js

template

base.html

navbar.html

src > crm > settings.py > ...

117

118 #TIME_ZONE = 'UTC'

119

120 TIME_ZONE = 'Asia/Bangkok'

121

122 USE_I18N = True

123

124 USE_TZ = True

125

126 USE_L10N = True

127

128

129 # Static files (CSS, JavaScript, Images)

130 # <https://docs.djangoproject.com/en/5.1/howto/static-files/>

131

132 STATIC_URL = '/static/'

133 STATICFILES_DIRS = [

134 | BASE_DIR / 'static'

135]

136

137 MEDIA_URL = '/media/'

138 MEDIA_ROOT = BASE_DIR / 'media'

139

140 # Default primary key field type

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

CLOUDFLARE TUNNEL

CRM (WORKSPACE)

src

crm

> __pycache__

__init__.py

asgi.py

settings.py

urls.py

wsgi.py

> crmenv

> customers

> media

> products

> profiles

> reports

> sales

static

css

style.css

src > crm > urls.py > ...

```
8 1. Add an import: from my_app import views
9 2. Add a URL to urlpatterns: path('', views.home, name='home')
10 Class-based views
11 1. Add an import: from other_app.views import Home
12 2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
13 Including another URLconf
14 1. Import the include() function: from django.urls import include, path
15 2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
16 """
17 from django.contrib import admin
18 from django.urls import path, include
19 from django.conf import settings
20 from django.conf.urls.static import static
21
22 urlpatterns = [
23     path('admin/', admin.site.urls),
24 ]
25
26 urlpatterns += static(settings.STATIC_URL, document_root = settings.STATIC_ROOT)
27 urlpatterns += static(settings.MEDIA_URL, document_root = settings.MEDIA_ROOT)
```

```
<!DOCTYPE html>
{% load static %}
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    {% block title %}{% endblock title %}
    <!-- bootstrap links -->
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-QWTKZyjpPEjISv5WaRU90FeRpok6YctnYmDr5pNlyT2bRjXh0JMhY6hW+ALEwIH" crossorigin="anonymous">
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js" integrity="sha384-
YvpcrYf0tY3lHB60NNkmXc5s9fDVZLESaAA55NDzOxhy9GkcIdslK1eN7N6jIeHz" crossorigin="anonymous"></script>
    <script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.11.8/dist/umd/popper.min.js" integrity="sha384-
I7E8VVD/ismYTF4hNIPjVp/Zjvgyol6VFvRkX/vR+Vc4jQkC+hVqc2pM80Dewa9r" crossorigin="anonymous"></script>
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.min.js" integrity="sha384-
0pUGZvbkm6XF6gxjEnlmuGrJXVbNuzT9qBBavbLwCsOGabYfZo0T0to5eqruptLy" crossorigin="anonymous"></script>
    <!-- Charts Js -->
    <script src = "https://cdnjs.com/libraries/Chart.js"></script>
    <script src="https://cdn.jsdelivr.net/npm/chart.js"></script>
    <script src="https://cdn.plot.ly/plotly-latest.min.js"></script>
    <!-- Simple Data Tables -->
    <link href="https://cdn.jsdelivr.net/npm/simple-datatables@latest/dist/style.css" rel="stylesheet" type="text/css">
    <script src="https://cdn.jsdelivr.net/npm/simple-datatables@latest" type="text/javascript"></script>
    <script src="https://cdn.jsdelivr.net/npm/masonry-layout@4.2.2/dist/masonry.pkgd.min.js" integrity="sha384-
GNFwBvfvxBkLMJpYMOABq3c+d3KnQxudP/mGPkzpZSTYykLBNSZEnG2D9G/X/+7D" crossorigin="anonymous" async></script>
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/flatpickr/dist/flatpickr.min.css">
{% block stylesheets %}{% endblock stylesheets %}
</head>
<body>
{% include 'navbar.html' %}
    <div class = "container mt-3 mb-3">
        {% block content %}{% endblock content%}
    </div>
</body>
{% block scripts %}{% endblock scripts %}
</html>
```

Create database: models

The screenshot shows a code editor with a file explorer on the left and a code editor on the right. The file explorer shows a project structure for 'CRM (WORKSPACE)' with folders 'src', 'crmenv', and 'customers'. The 'src' folder contains 'urls.py', 'views.py', and 'wsgi.py'. The 'customers' folder contains '__pycache__', 'migrations', '__init__.py', 'admin.py', 'apps.py', 'models.py', 'tests.py', and 'views.py'. The 'models.py' file is selected and its content is displayed in the code editor. The code defines a 'Customer' model with fields 'name', 'familyname', 'email', and 'logo'. The 'logo' field is an 'ImageField' with 'upload_to='customers'' and 'default='peopleSymbol.jpg''. A '__str__' method is also defined. The terminal at the bottom shows the command prompt 'PS D:\src>'.

EXPLORER

CRM (WORKSPACE)

- src
 - urls.py
 - views.py
 - wsgi.py
- crmenv
- customers
 - __pycache__
 - migrations
 - __init__.py
 - admin.py
 - apps.py
 - models.py
 - tests.py
 - views.py
- media
- products
- profiles
- reports
- sales
- static
 - css
 - style.css

OUTLINE

TIMELINE

urls.py views.py settings.py base.html models.py X admin.py

src > customers > models.py > ...

```
4 class Customer(models.Model):
5     name = models.CharField(max_length=50)
6     familyname = models.CharField(max_length=100)
7     email = models.CharField(max_length=100)
8     logo = models.ImageField(upload_to='customers', default='peopleSymbol.jpg')
9
10     def __str__(self):
11         return str(self.name)
12
13
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS CLOUDFLARE TUNNEL

powershell - src

(crmenv) PS D:\src> |

EXPLORER

... settings.py base.html models.py DB4S-terk

CRM (WORKSPACE)

src

customers

__init__.py

admin.py

apps.py

models.py

tests.py

views.py

src > customers > admin.py

```
1 from django.contrib import admin
2 from .models import Customer
3
4 # Register your models here.
5 admin.site.register(Customer)
6
```

- (crmenv) PS D:\src> python3 manage.py makemigrations
Migrations for 'customers':
customers\migrations\0001_initial.py
+ Create model Customer
- (crmenv) PS D:\src> python3 manage.py migrate
Operations to perform:
Apply all migrations: admin, auth, contenttypes, customers, sessions
Running migrations:
Applying customers.0001_initial... OK
- (crmenv) PS D:\src>

```
(crmenv) PS D:\src> python3 manage.py runserver 8001
Watching for file changes with StatReloader
Performing system checks...
```

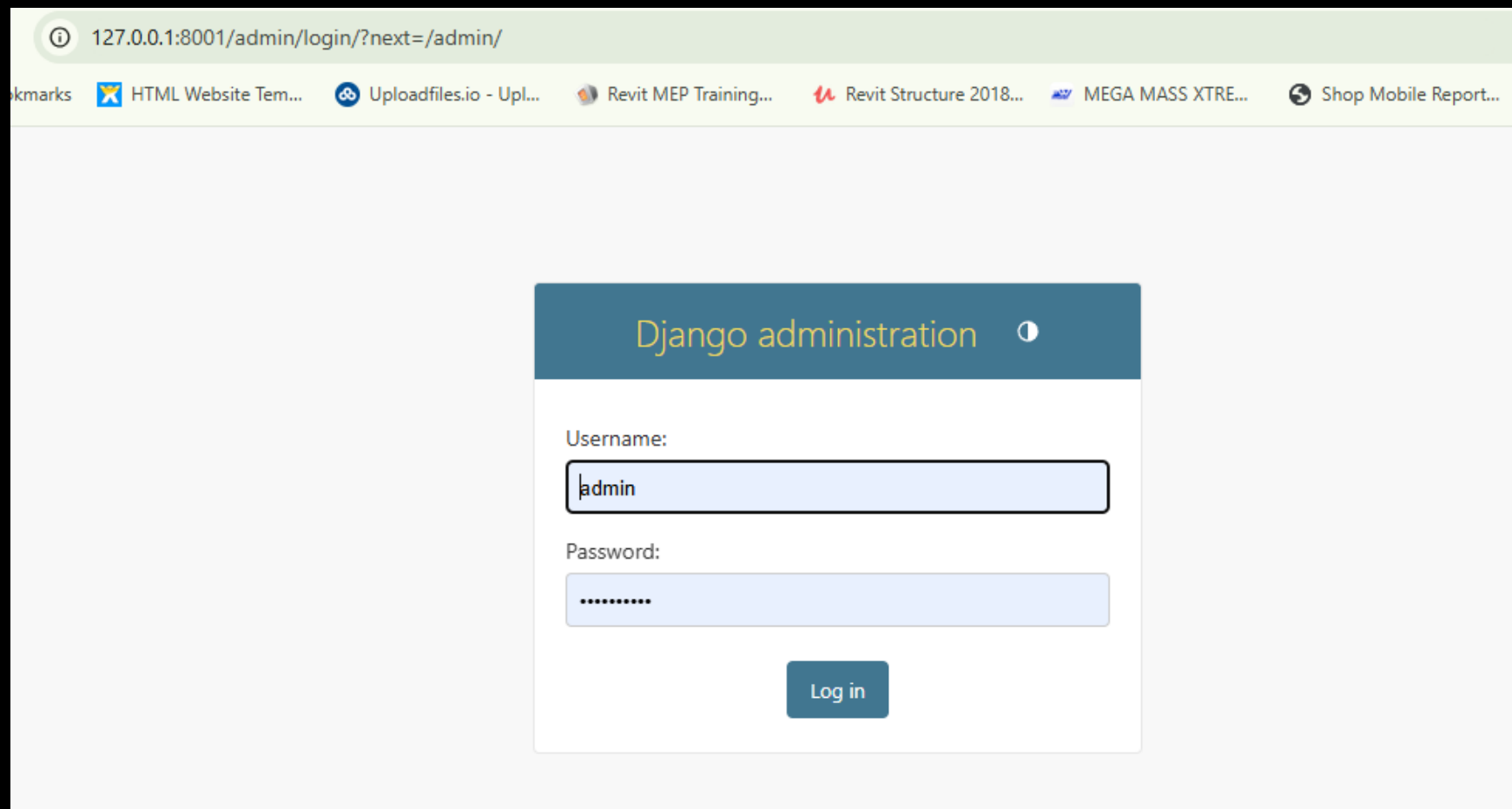
System check identified no issues (0 silenced).

November 07, 2024 - 06:15:34

Django version 5.1.2, using settings 'crm.settings'

Starting development server at http://127.0.0.1:8001/

Quit the server with CTRL-BREAK.



The screenshot shows a web browser window with the address bar displaying `127.0.0.1:8001/admin/login/?next=/admin/`. The browser's bookmark bar is visible with several entries. The main content area displays the Django administration login interface. It features a dark blue header with the text "Django administration" and a small circular icon. Below the header, there are two input fields: "Username:" with the value "admin" and "Password:" with masked characters. A "Log in" button is positioned below the password field.

127.0.0.1:8001/admin/login/?next=/admin/

HTML Website Tem... Uploadfiles.io - Upl... Revit MEP Training... Revit Structure 2018... MEGA MASS XTRE... Shop Mobile Report...

Django administration

Username:

admin

Password:

.....

Log in

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CUSTOMERS

Customers + Add

Select customer to change

0 customers

ADD CUSTOMER +

← → ↻ ⓘ 127.0.0.1:8001/admin/ ☆ 📁 👤 ⋮

📁 | ★ Bookmarks HTML Website Tem... Uploadfiles.io - Upl... Revit MEP Training... Revit Structure 2018... MEGA MASS XTRE... Shop Mobile Report... >> | 📁 All Bookmarks

Django administration

WELCOME, **ADMIN**. [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#) ⓘ

Site administration

AUTHENTICATION AND AUTHORIZATION

Groups	+ Add	✎ Change
Users	+ Add	✎ Change

CUSTOMERS

Customers	+ Add	✎ Change
-----------	-----------------------	--------------------------

Recent actions

My actions

None available

Django administration WELCOME, **ADMIN**. [VIEW SITE](#)

Home > Customers > Customers > Add customer

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups	+ Add
Users	+ Add

CUSTOMERS

Customers	+ Add
-----------	-----------------------

Add customer

Name:

Familyname:

Email:

Logo: No file chosen

Django administration

Home > Customers > Customers

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups [+ Add](#)

Users [+ Add](#)

CUSTOMERS

Customers [+ Add](#)

Select customer to change

Action: 0 of 1 selected

☐ CUSTOMER

☐ Mr.John

1 customer

Django administration

WELC

Home > Customers > Customers > Mr.John

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups [+ Add](#)

Users [+ Add](#)

CUSTOMERS

Customers [+ Add](#)

Change customer

Mr.John

Name:

Familyname:

Email:

Logo: Currently: customers/Screenshot_2024-10-02_182941_QNkfwly.png
Change: No file chosen

SAVE

Save and add another

Save and continue editing

DB Browser for SQLite

FileEditViewToolsHelp

New DatabaseOpen DatabaseWrite ChangesRevert ChangesUndoOpen ProjectSave ProjectAttach DatabaseClose Database

Database StructureBrowse DataEdit PragmasExecute SQL

Create TableCreate IndexModify TableDelete TablePrintRefresh

Name	Type	Schema
------	------	--------

Edit Database Cell

Mode: Text

1

Identification of the cell currently in the editor
Type and size of data currently in table

Apply

Remote

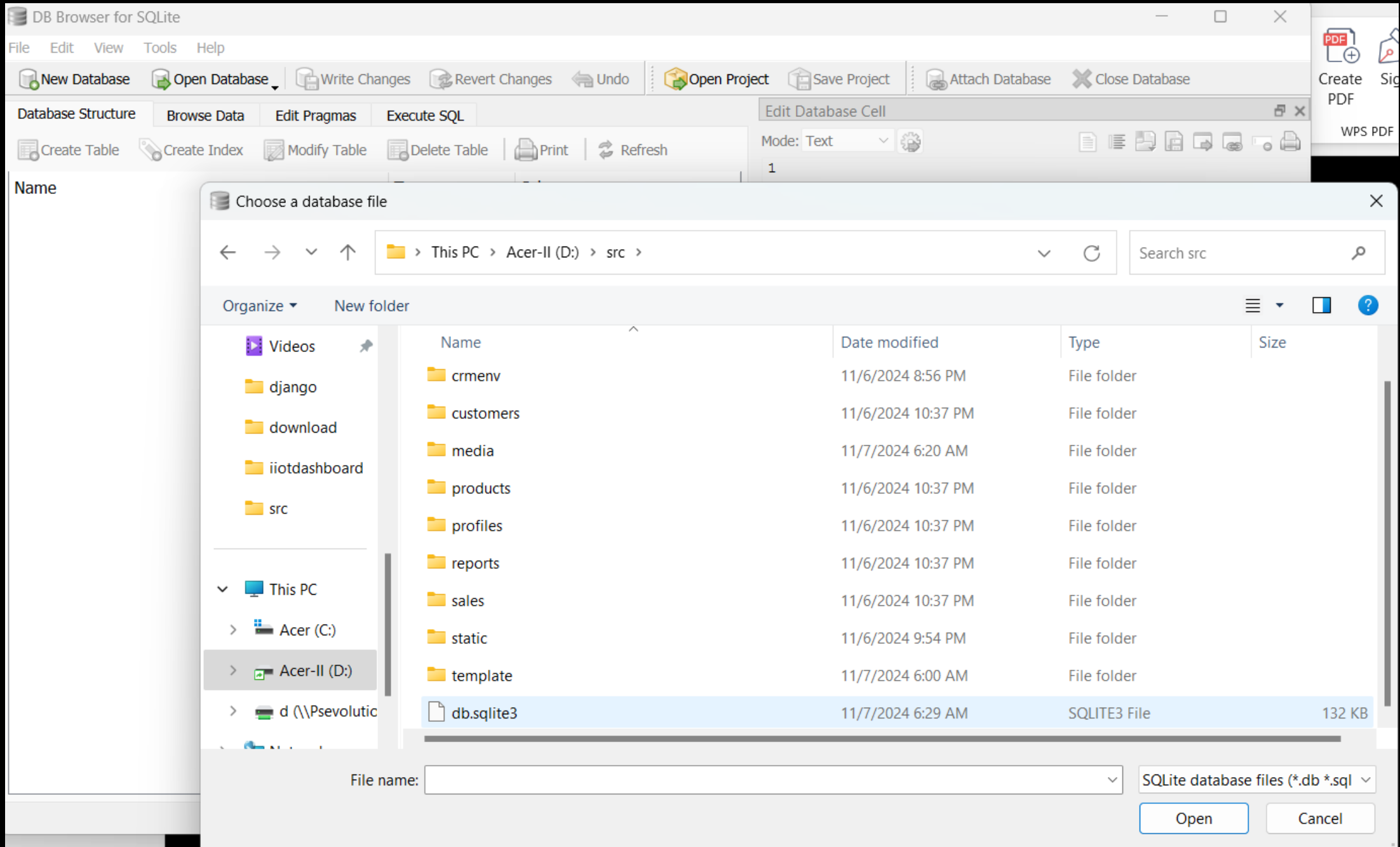
IdentitySelect an identity to connectUpload

DBHub.ioLocalCurrent Database

Name	Last modified	Size
------	---------------	------

SQL LogPlotDB SchemaRemote

UTF-8



Name	Type	Schema
Tables (12)		
auth_group	CREATE TABLE	"auth_group"
auth_group_permissions	CREATE TABLE	"auth_group_permissions"
auth_permission	CREATE TABLE	"auth_permission"
auth_user	CREATE TABLE	"auth_user"
auth_user_groups	CREATE TABLE	"auth_user_groups"
auth_user_user_permissions	CREATE TABLE	"auth_user_user_permissions"
customers_customer	CREATE TABLE	"customers_customer"
django_admin_log	CREATE TABLE	"django_admin_log"
django_content_type	CREATE TABLE	"django_content_type"
django_migrations	CREATE TABLE	"django_migrations"
django_session	CREATE TABLE	"django_session"
sqlite_sequence	CREATE TABLE	"sqlite_sequence"
Indices (15)		
auth_group_permissions_group_id_b1...	CREATE INDEX	"auth_group_permissions_group_id_b1..."
auth_group_permissions_group_id_per...	CREATE UNIQUE INDEX	"auth_group_permissions_group_id_per..."
auth_group_permissions_permission_id...	CREATE INDEX	"auth_group_permissions_permission_id..."
auth_permission_content_type_id_2f47...	CREATE INDEX	"auth_permission_content_type_id_2f47..."
auth_permission_content_type_id_cod...	CREATE UNIQUE INDEX	"auth_permission_content_type_id_cod..."
auth_user_groups_group_id_97559544	CREATE INDEX	"auth_user_groups_group_id_97559544"
auth_user_groups_user_id_6a12ed8b	CREATE INDEX	"auth_user_groups_user_id_6a12ed8b"
auth_user_groups_user_id_group_id_9...	CREATE UNIQUE INDEX	"auth_user_groups_user_id_group_id_9..."
auth_user_permissions_permission_id_...	CREATE INDEX	"auth_user_permissions_permission_id_..."

DB Browser for SQLite - D:\src\db.sqlite3

FileEditViewToolsHelp

New DatabaseOpen DatabaseWrite ChangesRevert ChangesUndoOpen ProjectSave ProjectAttach DatabaseClose Database

Database StructureBrowse DataEdit PragmaExecute SQL

Create TableCreate IndexPrintRefresh

Name	Type	Schema
Tables (12)		
auth_group		CREATE TABLE "auth_group" ("id" integer NOT
auth_group_permissions		CREATE TABLE "auth_group_permissions" ("id"
auth_permission		CREATE TABLE "auth_permission" ("id" integer I
auth_user		CREATE TABLE "auth_user" ("id" integer NOT N
auth_user_groups		CREATE TABLE "auth_user_groups" ("id" intege
auth_user_user_permissions		CREATE TABLE "auth_user_user_permissions" ('
customers_customer		CREATE TABLE "customers_customer" ("id" inte
id	integer	"id" integer NOT NULL
name	varchar(50)	"name" varchar(50) NOT NULL
familyname	varchar(100)	"familyname" varchar(100) NOT NULL
email	varchar(100)	"email" varchar(100) NOT NULL
logo	varchar(100)	"logo" varchar(100) NOT NULL
django_admin_log		CREATE TABLE "django_admin_log" ("id" intege
django_content_type		CREATE TABLE "django_content_type" ("id" inte
django_migrations		CREATE TABLE "django_migrations" ("id" intege
django_session		CREATE TABLE "django_session" ("session_key"
sqlite_sequence		CREATE TABLE sqlite_sequence(name,seq)
Indices (15)		
auth_group_permissions_group_id_b1...		CREATE INDEX "auth_group_permissions_group
auth_group_permissions_group_id_per...		CREATE UNIQUE INDEX "auth_group_permissio
auth_group_permissions_permission_id...		CREATE INDEX "auth_group_permissions_permi
auth_permission_content_type_id_2f47...		CREATE INDEX "auth_permission_content_type

Edit Database Cell

Mode: Text

NULL

No cell active.
Type: NULL; Size: 0 bytes

Apply

Remote

Identity Select an identity to connect Upload

DBHub.ioLocalCurrent Database

Name

SQL LogPlotDB SchemaRemote

DB Browser for SQLite - D:\src\db.sqlite3

File Edit View Tools Help

New Database

Open Database

Write Changes

Revert Changes

Undo

Open Project

Save Project

Attach Database

Close Database

Database Structure

Browse Data

Edit Pragmas

Execute SQL

Table: customers_customer

Filter in any column

	id	name	familyname	email	logo
	Fil...	Filter	Filter	Filter	Filter
1	1	Mr. John	Goldsmith	johnngoldsmith@gmail.com	customers/...

Edit Database Cell

Mode: Text

1 Mr. John

Editing row=1, column=2
Type: Text / Numeric; Size: 7 character(s)

Remote

Identity Select an identity to connect

Apply

Upload

Syntax:

```
field_name = models.FloatField(**options)
```



Field Options



Field Options are the arguments given to each field for applying some constraint or imparting a particular characteristic to a particular Field. For example, adding an argument `null = True` to `FloatField` will enable it to store empty values for that table in relational database. Here are the field options and attributes that an `FloatField` can use.





Field Options	Description
Null	If True , Django will store empty values as NULL in the database. Default is False .
Blank	If True , the field is allowed to be blank. Default is False .
<code>db_column</code>	The name of the database column to use for this field. If this isn't given, Django will use the field's name.
Default	The default value for the field. This can be a value or a callable object. If callable it will be called every time a new object is created.
help_text	Extra "help" text to be displayed with the form widget. It's useful for documentation even if your field isn't used on a form.
primary_key	If True , this field is the primary key for the model.
editable	If False , the field will not be displayed in the admin or any other <code>ModelForm</code> . They are also skipped during model validation. Default is True .
error_messages	The <code>error_messages</code> argument lets you override the default messages that the field will raise. Pass in a dictionary with keys matching the error messages you want to override.
help_text	Extra "help" text to be displayed with the form widget. It's useful for documentation even if your field isn't used on a form.

```
field_name = models.CharField(max_length=200, **options)
```




 **TextField**



 **FileField**
 **FilePathField**

 **SmallAutoField**
 **SmallIntegerField**

 **BigAutoField**
 **BigIntegerField**
 **BinaryField**
 **BooleanField**

 **CharField**

 **DateField**
 **DateTimeField**
 **DecimalField**

 **DurationField**
 **EmailField**

 **ImageField**

verbose_name	A human-readable name for the field. If the verbose name isn't given, Django will automatically create it using the field's attribute name, converting underscores to spaces.
validators	A list of validators to run for this field. See the validators documentation for more information.
Unique	If True , this field must be unique throughout the table.

- NUMERIC
 - DECIMAL(10,5)
 - BOOLEAN
 - DATE
 - DATETIME
- CHARACTER(20)
 - VARCHAR(255)
 - VARYING CHARACTER(255)
 - NCHAR(55)
 - NATIVE CHARACTER(70)
 - NVARCHAR(100)
 - TEXT
 - CLOB
- INT
 - INTEGER
 - TINYINT
 - SMALLINT
 - MEDIUMINT
 - BIGINT
 - UNSIGNED BIG INT
 - INT2
 - INT8
- REAL
 - DOUBLE
 - DOUBLE PRECISION
 - FLOAT

EXPLORER

... base.html models.py src • customers admin.py src • customers models.py

src > products > models.py > ...

```
1 from django.db import models
2
3 # Create your models here.
4 class Product(models.Model):
5     itemname = models.CharField(max_length=50)
6     itemdesc = models.TextField(max_length=120)
7     category = models.CharField(max_length=50)
8     unit = models.CharField(max_length=50)
9     cost = models.FloatField()
10    price = models.DecimalField(decimal_places=2,max_digits=6)
11    location = models.CharField(max_length=50)
12    balance = models.FloatField()
13    photo = models.ImageField()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS CLOUDFLARE TUNNEL

Starting development server at http://127.0.0.1:8001/
Quit the server with CTRL-BREAK.

- (crmenv) PS D:\src> python3 manage.py makemigrations
Migrations for 'products':
products\migrations\0001_initial.py
+ Create model Product
- (crmenv) PS D:\src> python3 manage.py migrate
Operations to perform:
Apply all migrations: admin, auth, contenttypes, customers, products, sessions
Running migrations:
Applying products.0001_initial... OK
- (crmenv) PS D:\src>

CRM (WORKSPACE)

src

customers

views.py

media

products

__pycache__

migrations

admin.py

apps.py

models.py

tests.py

views.py

src > products > admin.py

1 from django.contrib import admin

2 from .models import Product

3

4 # Register your models here.

5 admin.site.register(Product)

6

7

(crmenv) PS D:\src> python3 manage.py runserver 8001
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
November 07, 2024 - 07:53:27
Django version 5.1.2, using settings 'crm.settings'
Starting development server at http://127.0.0.1:8001/
Quit the server with CTRL-BREAK.

Django administration

WELCOME, J

Site administration

AUTHENTICATION AND AUTHORIZATION

Groups [+ Add](#) [Change](#)

Users [+ Add](#) [Change](#)

CUSTOMERS

Customers [+ Add](#) [Change](#)

PRODUCTS

Products [+ Add](#) [Change](#)

Recent actions

My actions

[+ Mr.John](#)
Customer

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CUSTOMERS

Customers + Add

PRODUCTS

Products + Add

Start

Itemname:

Itemdesc:

Category:

Unit:

Cost:

Price:

Location:

Release:

127.0.0.1:8001/admin/products/product/add/

BookmarksHTML Website Tem...Uploadfiles.io - Upl...Revit MEP Training...Revit Structure 2018...MEGA MASS XTRE...Shop Mobile Report...

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups+ Add

Users+ Add

CUSTOMERS

Customers+ Add

PRODUCTS

Products+ Add

Itemname:Power Bank

Itemdesc:Power Bank 10,000 maH
Lithium-Ion Battery
Life time gurantee
1,000,000 battery cycle times
Made in Thailand

Category:Battery

Unit:Set

Cost:1250

Price:2500

Location:WH-A-1-1

Balance:50

Photo:Choose FilepowerBank.jpg

CUSTOMERS

Customers + Add

PRODUCTS

Products + Add

Cost:

1250.0

Price:

2500.00

Location:

WH-A-1-1

Balance:

50.0

Photo:

Currently: powerBank.jpg

Change:

Choose File

 No file chosen

SAVE

Save and add another

Save and continue editing

Delete

- media
- customers
- Screenshot_2024-10-02.

CHGs-3.jpg

CHGs-4.jpg

default.jpg

diprom.jpg

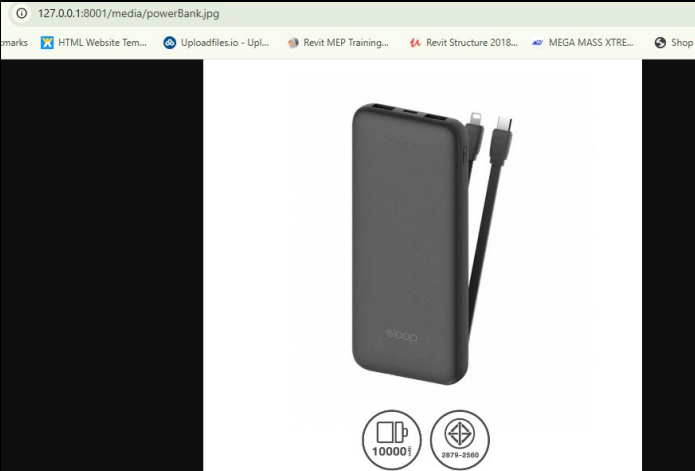
fallback.png

favicon.ico

man1.jpg

peopleSymbol.jpg

powerBank.jpg



src > products > models.py > ...

```
4 class Product(models.Model):
5     itemname = models.CharField(max_length=50)
6     itemdesc = models.TextField(max_length=120)
7     category = models.CharField(max_length=50)
8     unit = models.CharField(max_length=50)
9     cost = models.FloatField()
10    price = models.DecimalField(decimal_places=2,max_digits=6)
11    location = models.CharField(max_length=50)
12    balance = models.FloatField()
13    photo = models.ImageField(upload_to='products', default='products/no-product-found.png')
14
```

Total 6 digits include 2 decimal

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

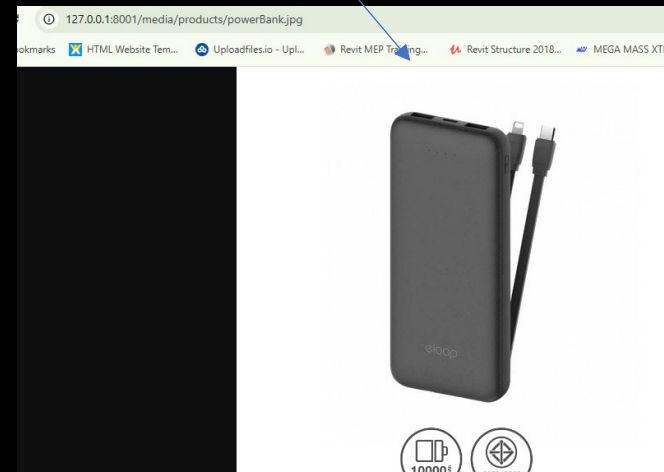
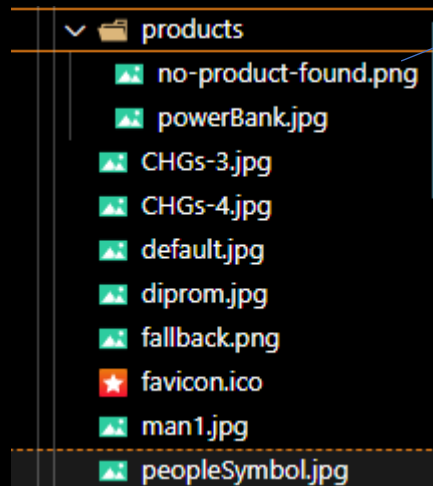
CLOUDFLARE TUNNEL

powershell

Starting development server at http://127.0.0.1:8001/
Quit the server with CTRL-BREAK.

- (crmenu) PS D:\src> python3 manage.py makemigrations
Migrations for 'products':
products\migrations\0003_alter_product_photo.py
~ Alter field photo on product
- (crmenu) PS D:\src> python3 manage.py migrate
Operations to perform:
Apply all migrations: admin, auth, contenttypes, customers, products, sessions
Running migrations:
Applying products.0003_alter_product_photo... OK
- (crmenu) PS D:\src> █

Category:	<input type="text" value="Fake One"/>
Unit:	<input type="text" value="Set"/>
Cost:	<input type="text" value="10.0"/>
Price:	<input type="text" value="1000.00"/>
Location:	<input type="text" value="Cloud-B"/>
Balance:	<input type="text" value="10.0"/>
Photo:	Currently: products/no-product-found.png Change: <input type="button" value="Choose File"/> No file chosen



Add product without Photo and Save

Change product

Product object (2)

Itemname:

Itemdesc:

Category:

Unit:

Cost:

Price:

Excel

Authentication and Authorization

Groups [+ Add](#)

Users [+ Add](#)

CUSTOMERS

Customers [+ Add](#)

PRODUCTS

Products [+ Add](#)

Then Get default photo

Balance:

Photo: Currently: no-product-found.png

Change: No file chosen

Name	Type	Schema
> auth_permission		CREATE TABLE "auth_permission" ("id" integer NOT NULL PRIMARY KEY
> auth_user		CREATE TABLE "auth_user" ("id" integer NOT NULL PRIMARY KEY AUT
> auth_user_groups		CREATE TABLE "auth_user_groups" ("id" integer NOT NULL PRIMARY I
> auth_user_user_permissions		CREATE TABLE "auth_user_user_permissions" ("id" integer NOT NULL
> customers_customer		CREATE TABLE "customers_customer" ("id" integer NOT NULL PRIMAR
> django_admin_log		CREATE TABLE "django_admin_log" ("id" integer NOT NULL PRIMARY
> django_content_type		CREATE TABLE "django_content_type" ("id" integer NOT NULL PRIMAF
> django_migrations		CREATE TABLE "django_migrations" ("id" integer NOT NULL PRIMARY
> django_session		CREATE TABLE "django_session" ("session_key" varchar(40) NOT NUL
▼ products_product		CREATE TABLE "products_product" ("id" integer NOT NULL PRIMARY K
id	integer	"id" integer NOT NULL
itemname	varchar(50)	"itemname" varchar(50) NOT NULL
itemdesc	text	"itemdesc" text NOT NULL
category	varchar(50)	"category" varchar(50) NOT NULL
unit	varchar(50)	"unit" varchar(50) NOT NULL
cost	real	"cost" real NOT NULL
price	decimal	"price" decimal NOT NULL
location	varchar(50)	"location" varchar(50) NOT NULL
balance	real	"balance" real NOT NULL
photo	varchar(100)	"photo" varchar(100) NOT NULL

Create new Table "Item"

```
src > products > models.py > Item
4 class Product(models.Model):
13     photo = models.ImageField(upload_to='products', default='products/no-product-found.png')
14
15
16 class Item(models.Model):
17     name = models.CharField(max_length=100)
18     image = models.ImageField(upload_to='products', default='products/no-product-found.png')
19     price = models.FloatField(help_text='in US dollars US$')
20     created = models.DateTimeField(auto_now_add=True)
21     updated = models.DateTimeField(auto_now=True)
22
23     def __str__(self):
24         return f"{self.name}--{self.created.strftime('%d/%m/%Y')}}"
25
```

PROBLEMS OUTPUT DEBUG CONSOLE **TERMINAL** PORTS CLOUDFLARE TUNNEL powershell - src

```
result = input()
~~~~~
KeyboardInterrupt
● (crmenu) PS D:\src> python3 manage.py makemigrations
Migrations for 'products':
  products\migrations\0005_item.py
    + Create model Item
● (crmenu) PS D:\src> python3 manage.py migrate
Operations to perform:
  Apply all migrations: admin, auth, contenttypes, customers, products, sessions
Running migrations:
  Applying products.0005_item... OK
○ (crmenu) PS D:\src>
```

DB Browser for SQLite - D:\src\db.sqlite3

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Undo Open Project Save Project Attach Database

Database Structure Browse Data Edit Pragmas Execute SQL

Create Table Create Index Modify Table Delete Table Print Refresh

Name	Type	Schema
> auth_permission		CREATE TABLE "auth_permission" ("id" integer NOT NULL PRIMARY KEY
> auth_user		CREATE TABLE "auth_user" ("id" integer NOT NULL PRIMARY KEY AUT
> auth_user_groups		CREATE TABLE "auth_user_groups" ("id" integer NOT NULL PRIMARY I
> auth_user_user_permissions		CREATE TABLE "auth_user_user_permissions" ("id" integer NOT NULL
> customers_customer		CREATE TABLE "customers_customer" ("id" integer NOT NULL PRIMAR
> django_admin_log		CREATE TABLE "django_admin_log" ("id" integer NOT NULL PRIMARY
> django_content_type		CREATE TABLE "django_content_type" ("id" integer NOT NULL PRIMAF
> django_migrations		CREATE TABLE "django_migrations" ("id" integer NOT NULL PRIMARY
> django_session		CREATE TABLE "django_session" ("session_key" varchar(40) NOT NUL
▼ products_item		CREATE TABLE "products_item" ("id" integer NOT NULL PRIMARY KEY
id	integer	"id" integer NOT NULL
name	varchar(100)	"name" varchar(100) NOT NULL
image	varchar(100)	"image" varchar(100) NOT NULL
price	real	"price" real NOT NULL
created	datetime	"created" datetime NOT NULL
updated	datetime	"updated" datetime NOT NULL
> products_product		CREATE TABLE "products_product" ("id" integer NOT NULL PRIMARY K
> sqlite_sequence		CREATE TABLE sqlite_sequence(name,seq)
▼ Indices (15)		
> auth_group_permissions_group_id_b1...		CREATE INDEX "auth_group_permissions_group_id_b120cbf9" ON "aut
> auth_group_permissions_group_id_per...		CREATE UNIQUE INDEX "auth_group_permissions_group_id_permissio
> auth_group_permissions_permission_id...		CREATE INDEX "auth_group_permissions_permission_id_84c5c92e" ON

```
src > products > admin.py
1 from django.contrib import admin
2 from .models import Product, Item
3
4 # Register your models here.
5 admin.site.register(Product)
6 admin.site.register(Item)
7
```

Django administration

Site administration

AUTHENTICATION AND AUTHORIZATION

Groups

Users

CUSTOMERS

Customers

PRODUCTS

Items

Products

+ Add  Change

+ Add  Change

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CUSTOMERS

Customers + Add

PRODUCTS

Items + Add

Products + Add

Add item

Name:

Image:

No file chosen

Price:

in US dollars US\$

SAVE

Save and add another

Save and continue editing



Change item

HISTORY

iPhone 16 Pro-07/11/2024

Name:

iPhone 16 Pro

Image:

Currently: [products/iphone16_pro.jpg](#)

Change:

Choose File

No file chosen

Price:

699.99

in US dollars US\$

SAVE

Save and add another

Save and continue editing

Delete

127.0.0.1:8001/media/products/iphone16_pro.jpg

Google flowaccount Tax AND gOV mcMonitoring new Monitoring pswebsite IOT and automation



DB Browser for SQLite - D:\src\db.sqlite3

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Undo Open Project Save Project Attach Database

Database Structure Browse Data Edit Pragmas Execute SQL

Table: products_item

	id	name	image	price	created	updated
	Filter	Filter	Filter	Filter	Filter	Filter
1	1	iPhone 16 Pro+	products/iphone16_pro.jpg	699.99	2024-11-07 01:53:40.794843	2024-11-07 01:59:26.686911

settings.py X base.html models.py src + cus

src > crm > settings.py > ...

```

114 # https://docs.djangoproject.com/en/5.1/co
115
116 LANGUAGE_CODE = 'en-us'
117
118 #TIME_ZONE = 'UTC'
119
120 TIME_ZONE = 'Asia/Bangkok'
121
122 USE_I18N = True
123
124 USE_TZ = False
125
126 USE_L10N = True
127

```

Django administration

Home > Products > Items > Tesla Model S-07/11/2024

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CUSTOMERS

Customers + Add

PRODUCTS

Items + Add

Products + Add

Change item

Tesla Model S-07/11/2024

Name: Tesla Model S









Image: Currently: products/tesla-model-s.jpg
Change: Choose File No file chosen

Price: 8999.99
in US dollars US\$

SAVE Save and add another Save and continue editing

DB Browser for SQLite - D:\src\db.sqlite3

File Edit View Tools Help

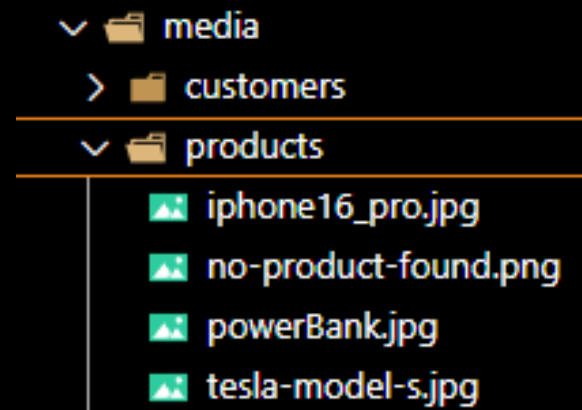
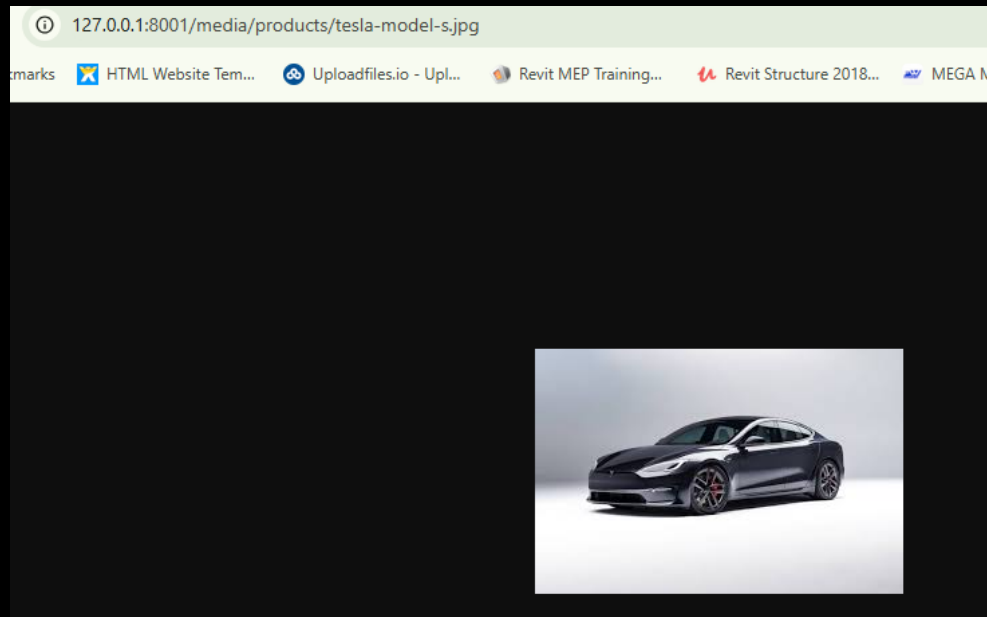
 New Database  Open Database  Write Changes  Revert Changes  Undo  Open Project  Save Project  Attach Database

Database Structure Browse Data Edit Pragas Execute SQL

Table:

	<u>id</u>	name	image	price	created	updated
	Fil...	Filter	Filter	Filter	Filter	Filter
1	1	iPhone 16 Pro+	products/iphone16_pro.jpg	699.99	2024-11-07 01:53:40.794843	2024-11-07 01:59:26.686911
2	2	Tesla Model S	products/tesla-model-...	8999.00	2024-11-07 09:12:42.832225	2024-11-07 09:12:42.832225



DB Browser for SQLite - D:\src\db.sqlite3

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Undo Open Project Save Project Attach Database

Database Structure Browse Data Edit Pragmas Execute SQL

Table: products_item

	id	name	image	price	created	updated
	Filter...	Filter	Filter	Filter	Filter	Filter
1	1	IPhone 16 Pro+	products/iphone16_pro.jpg	699.99	2024-11-07 01:53:40.794843	2024-11-07 01:59:26.686911
2	2	Tesla Model S	products/tesla-model-...	8999.00	2024-11-07 09:12:42.832225	2024-11-07 09:12:42.832225

Create Profile Model

The screenshot shows the VS Code interface with the Explorer on the left and the Code Editor on the right. The Explorer shows a project structure with a 'profiles' folder selected. The Code Editor shows the 'models.py' file in the 'profiles' folder, where a 'Profile' model is being defined. The model inherits from 'models.Model' and has a one-to-one relationship with the 'User' model. It also has fields for 'bio', 'avatar', 'created', and 'updated'.

```
EXPLORER
CRM (WORKSPACE)
  src
    products
      tests.py
      views.py
    profiles
      __pycache__
      migrations
      __init__.py
      admin.py
      apps.py
      models.py
      tests.py
      views.py

base.html | models.py src • customers | models.py src • products | models.py src • profiles
src > profiles > models.py > ...
1  from django.db import models
2  from django.contrib.auth.models import User
3
4  # Create your models here.
5  class Profile(models.Model):
6      user = models.OneToOneField(User, on_delete=models.CASCADE)
7
8      bio = models.TextField(default='no bio...')
9      avatar = models.ImageField(upload_to='avatar',default='no_picture.png')
10     created = models.DateTimeField(auto_now_add=True)
11     updated = models.DateTimeField(auto_now=True)
12
13     def __str__(self):
14         return f"Profile of {self.user.username}"
15
```

Register to admin.py

The screenshot shows the VS Code interface with the Explorer on the left and the Code Editor on the right. The Explorer shows the 'profiles' folder selected. The Code Editor shows the 'admin.py' file in the 'profiles' folder, where the 'Profile' model is being registered to the Django admin interface.

```
EXPLORER
CRM (WORKSPACE)
  src
    products
      tests.py
      views.py
    profiles
      __pycache__
      migrations
      __init__.py
      admin.py
      apps.py

base.html | models.py src • customers | models.py src • profiles
src > profiles > admin.py
1  from django.contrib import admin
2  from .models import Profile
3  # Register your models here.
4  admin.site.register(Profile)
5
```


- ```
TypeError: __init__() got an unexpected keyword argument 'password'
```
- (crmenv) PS D:\src> python3 manage.py makemigrations  
Migrations for 'profiles':  
 profiles\migrations\0001\_initial.py  
 + Create model Profile
  - (crmenv) PS D:\src> python3 manage.py migrate  
Operations to perform:  
 Apply all migrations: admin, auth, contenttypes, customers, products, profiles, sessions  
Running migrations:  
 Applying profiles.0001\_initial... OK
  - (crmenv) PS D:\src>

Django administration

Home > Profiles > Profiles

Start typing to filter...

**AUTHENTICATION AND AUTHORIZATION**

Groups [+ Add](#)

Users [+ Add](#)

**CUSTOMERS**

Customers [+ Add](#)

**PRODUCTS**

Items [+ Add](#)

Products [+ Add](#)

**PROFILES**

Profiles [+ Add](#)

Select profile to ch

0 profiles

## Add profile

User:

Bio:

no bio...

Avatar:

[Choose File](#) No file chosen

SAVE

Save and add another

Save and continue editing

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups [+ Add](#)

Users [+ Add](#)

CUSTOMERS

Customers [+ Add](#)

PRODUCTS

Items [+ Add](#)

Products [+ Add](#)

PROFILES

Profiles [+ Add](#)

## Change profile

### Profile of pasidth

HISTORY

User: pasidth [✎](#) [+](#) [👁](#)

Bio: no bio...

Avatar: 

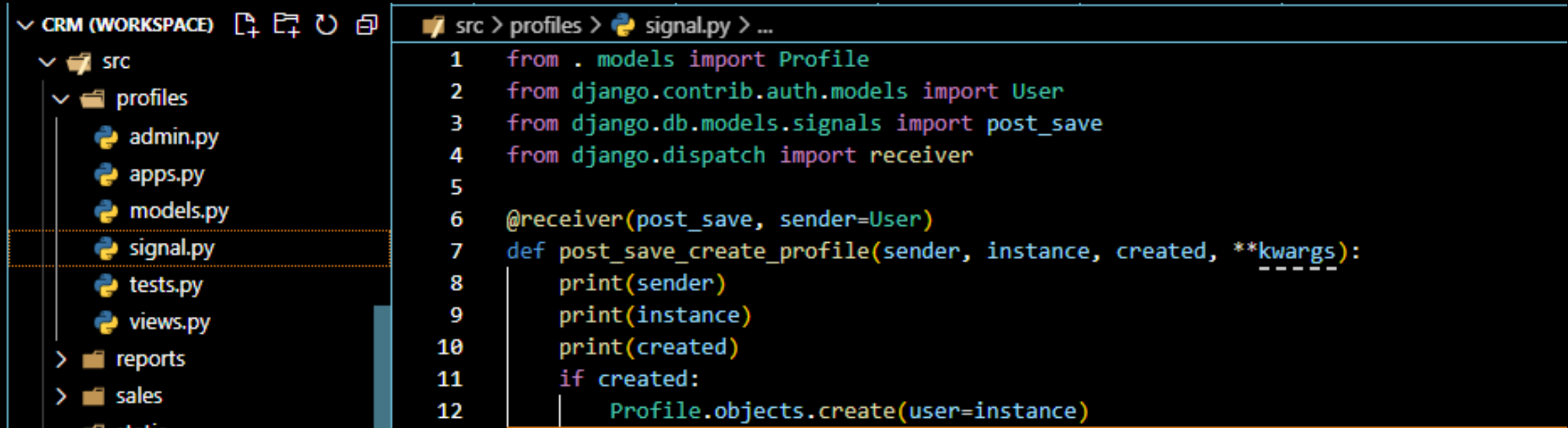
Currently: avatar/Screenshot\_2024-08-14\_205218.png

Change: [Choose File](#) No file chosen

[SAVE](#) [Save and add another](#) [Save and continue editing](#) [Delete](#)

Make add user → create profile automatically:

1. Creating signal.py to send a signal to the module initiate an automatic operation,



```
src > profiles > signal.py > ...
1 from . models import Profile
2 from django.contrib.auth.models import User
3 from django.db.models.signals import post_save
4 from django.dispatch import receiver
5
6 @receiver(post_save, sender=User)
7 def post_save_create_profile(sender, instance, created, **kwargs):
8 print(sender)
9 print(instance)
10 print(created)
11 if created:
12 Profile.objects.create(user=instance)
```

kwargs = keyword arguments

## 2. Modify app.py

✓ CRM (WORKSPACE)

- src
  - products
    - views.py
  - profiles
    - > \_\_pycache\_\_
    - > migrations
      - \_\_init\_\_.py
    - admin.py
    - apps.py

src > profiles > apps.py > ...

```
1 from django.apps import AppConfig
2
3
4 class ProfilesConfig(AppConfig):
5 default_auto_field = 'django.db.models.BigAutoField'
6 name = 'profiles'
7
8 def ready(self):
9 import profiles.signal
10
```

## 3. Modify \_\_init\_\_.py

EXPLORER

- ✓ CRM (WORKSPACE)
  - src
    - products
      - views.py
    - profiles
      - > \_\_pycache\_\_
      - > migrations
      - \_\_init\_\_.py
      - admin.py

... | products | signal.py | apps.py | tests.py | \_\_init\_\_.py

src > profiles > \_\_init\_\_.py > ...

```
1 default_app_config = 'profiles.apps.ProfilesConfig'
2
```

Django administration

Home > Authentication and Authorization > Users

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CUSTOMERS

Customers + Add

PRODUCTS

Items + Add

Select user to change

Q

Search

Action: 

-----

 Go 0 of 2 selected

|                          |          |               |            |
|--------------------------|----------|---------------|------------|
| <input type="checkbox"/> | USERNAME | EMAIL ADDRESS | FIRST NAME |
| <input type="checkbox"/> | admin    | -             | -          |
| <input type="checkbox"/> | pasidth  | -             | -          |

2 users

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CUSTOMERS

Customers + Add

PRODUCTS

Items + Add

Products + Add

PROFILES

Profiles + Add

Select user to change

Q

Search

Action: 

Delete selected users

 Go 1 of 2 selected

|                                     |          |               |            |           |
|-------------------------------------|----------|---------------|------------|-----------|
| <input type="checkbox"/>            | USERNAME | EMAIL ADDRESS | FIRST NAME | LAST NAME |
| <input type="checkbox"/>            | admin    | -             | -          | -         |
| <input checked="" type="checkbox"/> | pasidth  | -             | -          | -         |

2 users

Home > Profiles > Profiles

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CUSTOMERS

Customers + Add

PRODUCTS

Items + Add

Products + Add

Select profile to change

Action: 

-----

 Go 0 of 1 selected

|                          |                    |
|--------------------------|--------------------|
| <input type="checkbox"/> | PROFILE            |
| <input type="checkbox"/> | Profile of pasidth |

1 profile

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CUSTOMERS

Customers + Add

PRODUCTS

Items + Add

Products + Add

Are you sure?

Are you sure you want to delete the selected user? All of the following o

Summary

Users: 1

Profiles: 1

Objects

User: pasidth

Profile: Profile of pasidth

Yes, I'm sure

No, take me back

```
src > profiles > models.py > ...
1 from django.db import models
2 from django.contrib.auth.models import User
3
4 # Create your models here.
5 class Profile(models.Model):
6 user = models.OneToOneField(User, on_delete=models.CASCADE)
7
```

Home > Authentication and Authorization > Users

Start typing to filter...

**AUTHENTICATION AND AUTHORIZATION**

- Groups + Add
- Users + Add

**CUSTOMERS**

- Customers + Add

**PRODUCTS**

- Items + Add

Successfully deleted 1 user.

Select user to change

Q [ ] Search

Action: [ ] Go 0 of 1 selected

| <input type="checkbox"/> | USERNAME | EMAIL ADDRESS | FIRST NAME | LAST NAME | STAFF STATUS |
|--------------------------|----------|---------------|------------|-----------|--------------|
| <input type="checkbox"/> | admin    | -             | -          | -         | ✓            |

1 user

Home > Profiles > Profiles

Start typing to filter...

**AUTHENTICATION AND AUTHORIZATION**

- Groups + Add
- Users + Add

**CUSTOMERS**

- Customers + Add

**PRODUCTS**

- Items + Add
- Products + Add

**PROFILES**

- Profiles + Add

Select profile to change

0 profiles

## Add new user “dr.pasidth”

127.0.0.1:8001/admin/auth/user/3/change/

Home > Authentication and Authorization > Users > dr.pasidth

Start typing to filter...

**AUTHENTICATION AND AUTHORIZATION**

- Groups + Add
- Users + Add**

**CUSTOMERS**

- Customers + Add

**PRODUCTS**

- Items + Add
- Products + Add

**PROFILES**

- Profiles + Add

✓ The user “dr.pasidth” was added successfully. You may edit it again below.

### Change user

#### dr.pasidth

**Username:**

Required. 150 characters or fewer. Letters, digits and @/./+/-/\_ only.

**Password:** **algorithm:** pbkdf2\_sha256 **iterations:** 870000 **salt:** lAzdXf\*\*\*\*\* **hash:** k+qQz7\*\*\*\*\*

[Reset password](#)

Raw passwords are not stored, so there is no way to see the user's password.

#### Personal info

**First name:**

**Last name:**

System check identified no issues (0 silenced).  
November 07, 2024 - 11:59:25  
Django version 5.1.2, using settings 'crm.settings'  
Starting development server at http://127.0.0.1:8001/  
Quit the server with CTRL-BREAK.

<class 'django.contrib.auth.models.User'>  
dr.pasidh  
True

```
signal.py x apps.py tests.py _init_.py models.
src > profiles > signal.py > ...
from . models import Profile
from django.contrib.auth.models import User
from django.db.models.signals import post_save
from django.dispatch import receiver

@receiver(post_save, sender=User)
def post_save_create_profile(sender, instance, created, **kwargs):
 print(sender)
 print(instance)
 print(created)
 if created:
 Profile.objects.create(user=instance)
```

Django administration

Home > Profiles > Profiles

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups + Add
- Users + Add

CUSTOMERS

- Customers + Add

PRODUCTS

- Items + Add
- Products + Add

PROFILES

- Profiles + Add

Select profile to change

Action: [-----] Go 0 of 1 selected

- ☐ PROFILE
- ☐ Profile of dr.pasidh

1 profile

Change profile

Profile of dr.pasidh

History

User: dr.pasidh [edit] [add] [eye]

Bio: no bio...

Avatar: Currently: no\_picture.jpg  
Change: [Choose File] No file chosen

[SAVE LINE] [Save and add another] [Save and continue editing] [Delete]



### Add user

First, enter a username and password. Then, you'll be able to edit more user options.

**Username:**   
Required. 150 characters or fewer. Letters, digits and @/./+/-/\_ only.

**Password-based authentication:** ☒ Enabled ☐ Disabled  
Whether the user will be able to authenticate using a password or not. If disabled, they may still be able to authenticate using other backends, such as Single Sign-On or LDAP.

**Password:**   
Your password can't be too similar to your other personal information.  
Your password must contain at least 8 characters.  
Your password can't be a commonly used password.  
Your password can't be entirely numeric.

**Password confirmation:**   
Enter the same password as before, for verification.

```
src > profiles > models.py > Profile
1 from django.db import models
2 from django.contrib.auth.models import User
3
4 # Create your models here.
5 class Profile(models.Model):
6 user = models.OneToOneField(User, on_delete=models.CASCADE)
7
```

### Add user

First, enter a username and password. Then, you'll be able to edit more user options.

**Please correct the error below.**

A user with that username already exists.

**Username:**   
Required. 150 characters or fewer. Letters, digits and @/./+/-/\_ only.

**Password-based authentication:** ☒ Enabled ☐ Disabled  
Whether the user will be able to authenticate using a password or not. If disabled, they may still be able to authenticate using other backends, such as Single Sign-On or LDAP.

**Password:**   
Your password can't be too similar to your other personal information.

Save dr.pasidth one more time:

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CUSTOMERS

Customers + Add

PRODUCTS

Items + Add

Products + Add

PROFILES

Profiles + Add

Products | product | Can change product

Products | product | Can delete product

Products | product | Can view product

Profiles | profile | Can add profile

Profiles | profile | Can change profile

Choose all

Remove all

Specific permissions for this user. Hold down "Control", or "Command" on a Mac, to select more than one.

Important dates

Last login:

Date:

Today |

Time:

Now |

Date joined:

Date:

2024-11-07

Today |

Time:

11:59:32

Now |

SAVE

Save and add another

Save and continue editing

Delete

# Django administration

Home > Authentication and Authorization > Users

Start typing to filter...

AUTHENTICATION AND  
AUTHORIZATION

✓ The user "dr.pasidth" was changed successfully.

Select user to change

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS CLOUDFLARE TUNNEL

```
[07/Nov/2024 12:14:55] "GET /admin/auth/user/ HTTP/1.1" 200 14136
[07/Nov/2024 12:14:55] "GET /admin/jsi18n/ HTTP/1.1" 200 3342
[07/Nov/2024 12:15:34] "GET /admin/auth/user/ HTTP/1.1" 200 13938
[07/Nov/2024 12:15:34] "GET /admin/jsi18n/ HTTP/1.1" 200 3342
[07/Nov/2024 12:15:36] "GET /admin/auth/user/3/change/ HTTP/1.1" 200 2478
[07/Nov/2024 12:15:36] "GET /admin/jsi18n/ HTTP/1.1" 200 3342
<class 'django.contrib.auth.models.User'>
dr.pasidth
False
[07/Nov/2024 12:16:46] "POST /admin/auth/user/3/change/ HTTP/1.1" 302 0
[07/Nov/2024 12:16:46] "GET /admin/auth/user/ HTTP/1.1" 200 14136
[07/Nov/2024 12:16:46] "GET /admin/jsi18n/ HTTP/1.1" 200 3342
```

signal.py tests.py apps.py \_\_init\_\_.py models.py src

src > profiles > signal.py > ...

```
1 from . models import Profile
2 from django.contrib.auth.models import User
3 from django.db.models.signals import post_save
4 from django.dispatch import receiver
5
6 @receiver(post_save, sender=User)
7 def post_save_create_profile(sender, instance, created, **kwargs):
8 print(sender)
9 print(instance)
10 print(created)
11 if created:
12 Profile.objects.create(user=instance)
13
```

Created only once



# Chapter 3

Create Log in & Log Out for Web App

```
19 from . import views
20
21 urlpatterns = [
22 path('admin/', admin.site.urls),
23 path('', views.login_user, name="login"),
24 path('dashboard/index/', views.index, name="index"),
25 path('dashboard/', views.dashboard, name="dashboard"),
26 path('dashboard/readcsv/', views.readcsv, name="readcsv"),
27 path('dashboard/anomalycsv/', views.anomalycsv, name="anomalycsv"),
28 path('dashboard/datatables/', views.datatables, name="datatables"),
29 path('dashboard/upload-csv/', views.upload_and_analyze_csv2, name='upload-csv'),
30 path('dashboard/anomaly_detection_view', views.anomaly_detection_view2, name='anomaly_detection'),
31 path('dashboard/report/', views.generate_descriptive_report, name='report'),
32 path('login/', views.login_user, name="login"),
33 path('logout/', views.logout_user, name="logout"),
34 path('about/', views.about, name="about"),
35 path('products/', views.products, name="products"),
36]
```



```
25 | return render(request, "datatables.html")
26 |
27 | def login_user(request):
28 | if request.method == "POST":
29 | username = request.POST['username']
30 | password = request.POST['password']
31 | user = authenticate(request, username=username, password=password)
32 | if user is not None:
33 | login(request, user)
34 | #messages.success(request, ("*** Logged in is success ***"))
35 | return redirect('dashboard')
36 | else:
37 | messages.success(request, ("Logged in is not success!!! ..."))
38 | return render(request, 'login.html')
39 | else:
40 | return render(request, 'login.html', {})
41 |
42 | def logout_user(request):
43 | messages.success(request, ("You have been logged out ... see you again"))
44 | return render(request, 'login.html')
45 |
46 | def about(request):
47 | return render(request, 'about.html')
48 |
49 | def home(request):
50 | pass
51 |
52 | def products(request):
53 | return render(request, 'products.html')
```

templates

- layouts
  - base.html
  - footer.html
  - header.html
  - sidebar.html

reports

- about.html

templates

- anomaly\_detection2.h...
- anomaly\_graph.html
- anomalyAmp.html
- dashboard\_backup.ht...
- dashboard.html
- datatables.html
- descriptive.html
- error.html
- html\_template.html
- index.html
- login.html
- logout.html
- products.html

iiotdashboard > core > templates > dj about.html

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <title>About</title>
7 <h1>This is about page.</h1>
8 </head>
9 <body>
10
11 </body>
12 </html>
```

```
{% extends "layouts/base.html" %}
{% load static %}

{% block title %}
iiot Login
{% endblock %}

{% block content %}
<section class="vh-100">
 <div class="container-fluid">
 <div class="row">
 <div class="col-sm-6 text-black">

 <div class="px-5 ms-xl-4">
 <i class="fas fa-crow fa-2x me-3 pt-5 mt-xl-4" style="color: #709085;"></i>

 </div>
 <div class="d-flex align-items-center h-custom-2 px-5 ms-xl-4 mt-5 pt-5 pt-xl-0 mt-xl-n5">

 <form style="width: 23rem;" method = "POST" action="{% url 'login' %}">
 {% csrf_token %}
 <h3 class="fw-normal mb-3 pb-3" style="letter-spacing: 1px;">Log in</h3>
 <div data-mdb-input-init class="form-outline mb-4">
 <input type="text" name = "username" id="form2Example18" class="form-control form-control-lg" />
 <label class="form-label" for="form2Example18">User Name</label>
 </div>
 <div data-mdb-input-init class="form-outline mb-4">
 <input type="password" name = "password" id="form2Example28" class="form-control form-control-lg" />
 <label class="form-label" for="form2Example28">Password</label>
 </div>

 <div class="pt-1 mb-4">
 <button data-mdb-button-init data-mdb-ripple-init class="btn btn-info btn-lg btn-block" type="Submit">Login</button>
 </div>
 </div>
 </div>
 </div>
 </div>
 </div>
</section>
```



```
<p class="small mb-5 pb-lg-2">Forgot password?</p>
 <p>Don't have an account? Register here</p>
```

```
</form>
```

```
</div>
```

```
</div>
```

```
<div class="col-sm-6 px-0 d-none d-sm-block">
```

```

```

```
</div>
```

```
</div>
```

```
</div>
```

```
</section>
```

```
{% endblock %}
```

iiotdashboard > core > templates > **dj** logout.html

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <title>Logout</title>
7 </head>
8 <body>
```

iiotdashboard > core > templates > **dj** about.html

```
10 </body>
11 </html>
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <title>About</title>
7 <h1>This is about page.</h1>
8 </head>
9 <body>
```

iiotdashboard > core > templates > **dj** products.html

```
10 </body>
11 </html>
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <title>Products</title>
7 </head>
8 <body>
9
10 </body>
11 </html>
```



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## Log in

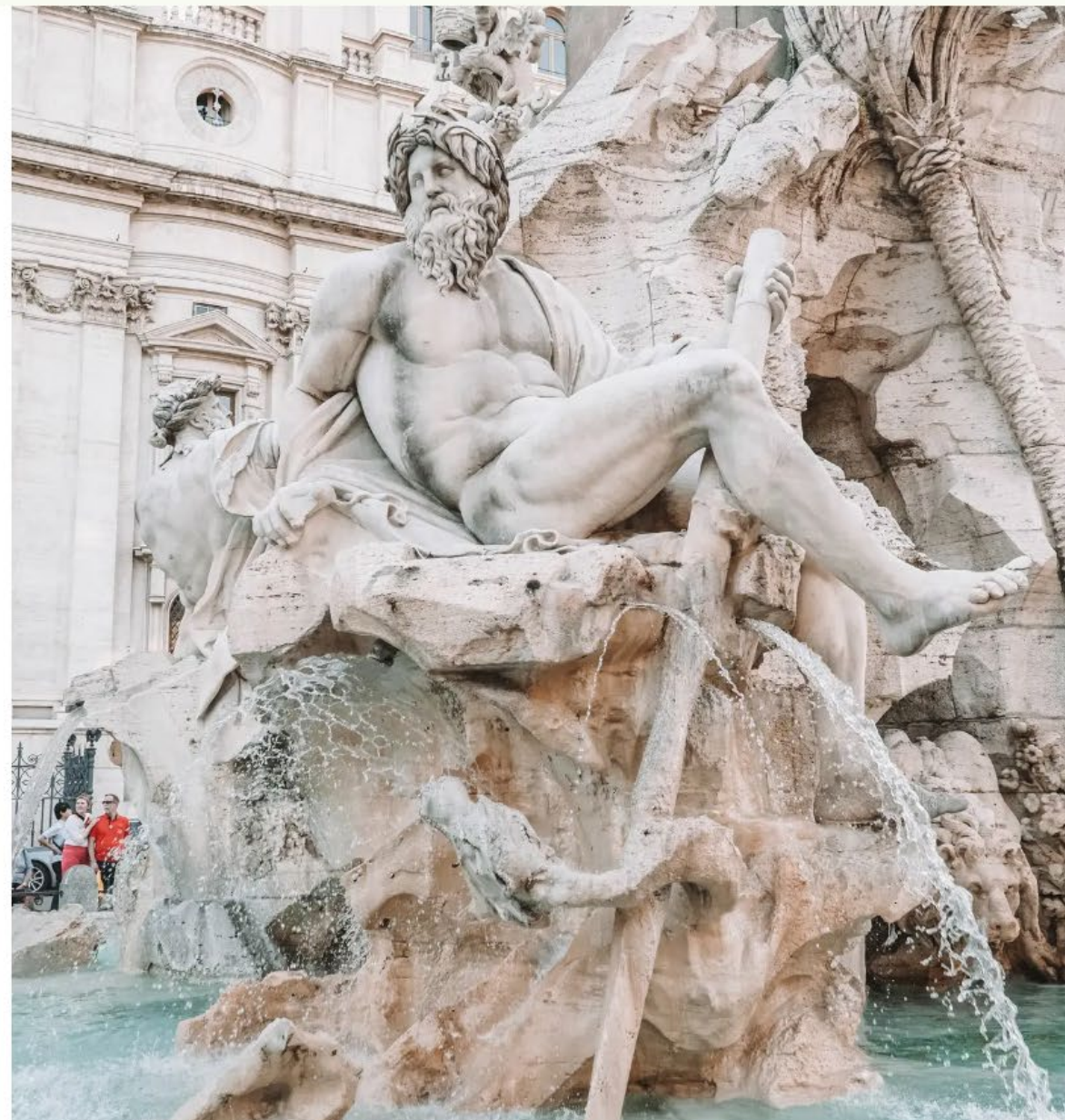
User Name

Password

Login

[Forgot password?](#)

Don't have an account? [Register here](#)

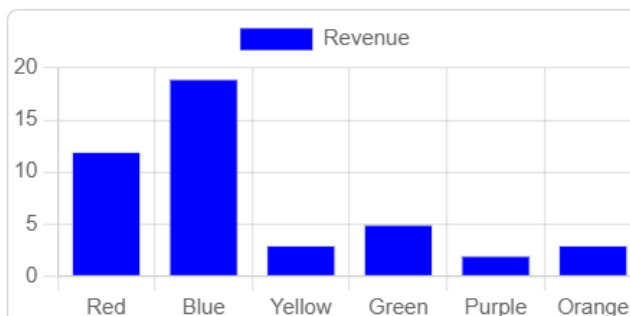


## Menubar

- 🏠 Home
- 📊 Dashboard
- 📄 Read & Plot CSV
- 🔍 Anomaly CSV
- 🚫 Anomaly Detection
- 📈 Graph
- 📄 Report
- 👤 admin

- 🏠 Home
- 📊 Dashboard
- 🔍 About
- 📁 IoT Products
- 🚪 Logout

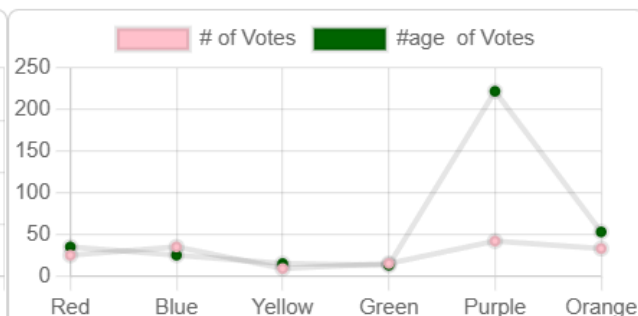
## Dashboard



## Total Views

Number of viewers.

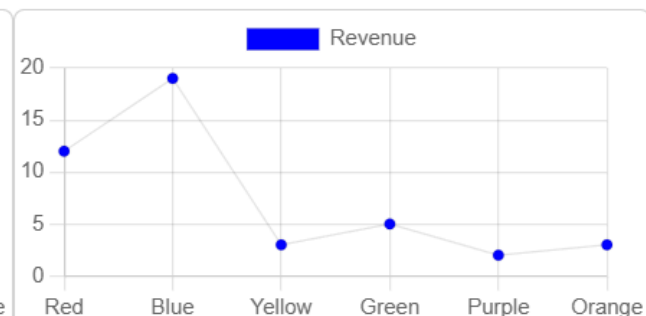
Last updated 3 mins ago



## Revenue

Revenue not included other revenue.

Last updated 5 mins ago



## Revenue Growth

M-o-M month on month growth.

Last updated 7 days ago

## This is an data table file

10 entries per page

Search...

Name	Family Name	email
John	Mccoy	John@gmail.com

## การจัดการ Django

ยินดีต้อนรับ, ADMIN. [ดูที่หน้าเว็บ](#) / [เปลี่ยนรหัสผ่าน](#) / [ออกจากระบบ](#)

### การจัดการไซต์

#### การตรวจสอบและอนุมัติ

กลุ่ม	<a href="#">+ เพิ่ม</a> <a href="#">✎ เปลี่ยนแปลง</a>
ผู้ใช้	<a href="#">+ เพิ่ม</a> <a href="#">✎ เปลี่ยนแปลง</a>

### การกระทำล่าสุด

#### การกระทำของฉัน

- [✎ zine](#)  
ผู้ใช้
- [✎ pasidth](#)  
ผู้ใช้
- [✎ pasidth](#)  
ผู้ใช้
- [✎ pasidth](#)  
ผู้ใช้
- [✎ pasidth](#)  
ผู้ใช้
- [+ pasidth](#)  
ผู้ใช้



127.0.0.1:8001/logout/

Bookmarks HTML Website Tem... Uploadfiles.io - Upl... Revit MEP Training... Revit Structure 2018... MEGA MASS XTRE... Shop Mobile Report... ติดต่อเรา GHG EF

You have been logged out ... see you again



**Psevolution**

A Better Solution A Better Life

Log in

admin

User Name

.....

Password

Login

[Forgot password?](#)



127.0.0.1:8001/admin/auth/

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## การจัดการ Django

ยินดีต้อนรับ, ADMIN. [ดูที่หน้าเว็บ](#) / [เปลี่ยนรหัสผ่าน](#) / [ออกจากระบบ](#)

หน้าหลัก > การตรวจสอบและอนุมัติ

### การจัดการ การตรวจสอบและอนุมัติ

การตรวจสอบและอนุมัติ	
กลุ่ม	<a href="#">+ เพิ่ม</a> <a href="#">✎ เปลี่ยนแปลง</a>
ผู้ใช้	<a href="#">+ เพิ่ม</a> <a href="#">✎ เปลี่ยนแปลง</a>

127.0.0.1:8001/dashboard/

Bookmarks HTML Website Tem... Uploadfiles.io - Upl... Revit MEP Training... Revit Structure 2018... MEGA MASS XTRE... Shop Mobile Report... ติดต่อเรา GHG EF

### Menubar

- Home
- Dashboard
- Read & Plot CSV
- Anomaly CSV
- Anomaly Detection
- Graph
- Report
- admin

Home Dashboard About IoT Products Logout

## Dashboard

#### Total Views

Number of viewers.

Last updated 3 mins ago

Category	Views
Red	12
Blue	18
Yellow	3
Green	5
Purple	2
Orange	3

#### Revenue

Revenue not included other revenue.

Last updated 5 mins ago

Category	Revenue	# of Votes	#age of Votes
Red	12	20	30
Blue	18	30	20
Yellow	3	10	10
Green	5	20	20
Purple	2	40	220
Orange	3	30	40

#### Revenue Growth

M-o-M month on month growth.

Last updated 7 days ago

Category	Revenue
Red	12
Blue	18
Yellow	3
Green	5
Purple	2
Orange	3

This is an data table file

## การจัดการไซต์

### การตรวจสอบและอนุมัติ

กลุ่ม

+ เพิ่ม ✎ เปลี่ยนแปลง

ผู้ใช้

+ เพิ่ม ✎ เปลี่ยนแปลง

## การกระทำล่าสุด

### การกระทำของฉัน

zine

iiotdashboard > dashboard > admin.py

```
1 from django.contrib import admin
2
3 admin.site.site_url = "/dashboard"
4 # Register your models here.
```

default: "/"

New setting

iiotdashboard > core > settings.py > ...

```
137
138 MEDIA_ROOT = (os.path.join(BASE_DIR, "core/media"),)
139
140 # Default primary key field type
141 # https://docs.djangoproject.com/en/5.1/ref/settings/#default-auto-field
142
143 DEFAULT_AUTO_FIELD = 'django.db.models.BigAutoField'
144
145 LOGOUT_REDIRECT_URL = '/login'
...
```

default: "/admin/"

New setting



# Template Variables

In Django templates, you can render variables by putting them inside `{{ }}` brackets:

templates/template.html :

```
<h1>Hello {{ firstname }}, how are you?</h1>
```

## Create Variable in View

The variable `firstname` in the example above was sent to the template via a view:

views.py :

```
from django.http import HttpResponse
from django.template import loader

def testing(request):
 template = loader.get_template('template.html')
 context = {
 'firstname': 'Linus',
 }
 return HttpResponse(template.render(context, request))
```

template.html

views.py

```
<!DOCTYPE html>
<html>
<body>

<h1>Hello {{ firstname }}, how are you?</h1>

<p>In views.py you can see how to create the variable.</p>
<p>In template.html you can see how to use the variable.</p>

</body>
</html>
```

template.html

views.py

```
from django.http import HttpResponse
from django.template import loader

def testing(request):
 template = loader.get_template('template.html')
 context = {
 'firstname': 'Linus',
 }
 return HttpResponse(template.render(context, request))
```

127.0.0.1:8000/testing

# Hello Linus, how are you?

In views.py you can see how to create the variable.

In template.html you can see how to use the variable.

end Episode II