



ToDo webapp using Django

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Django is a high-level Python Web framework-based web framework that allows rapid development and clean, pragmatic design. today we will create a todo app to understand the basics of [Django](#). In this web app, one can create notes like Google Keep or Evernote.

Basic setup

Create a [virtual environment](#), and install the packages:

```
pip install django-crispy-forms
pip install Django
```

Step 1: Start a project with the following command

```
django-admin startproject todo_site
```

Step 2: Change the directory to todo_site.

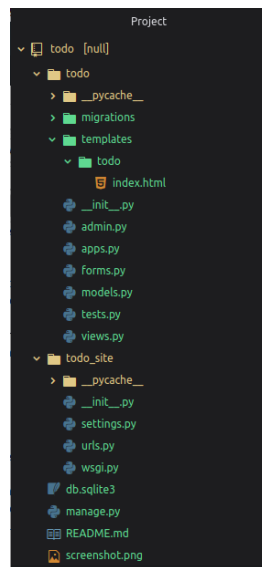
```
cd todo_site
```

Let's create an app now

Step 3: Create an app with the following command.

```
python manage.py startapp todo
```

The directory structure should look like this:



Step 4: Now add the todo app in your todo_site in **settings.py**

```

29
30
31 # Application definition
32
33 INSTALLED_APPS = [
34     'todo',
35     'crispy_forms',
36     'django.contrib.admin',
37     'django.contrib.auth',
38     'django.contrib.contenttypes',
39     'django.contrib.sessions',
40     'django.contrib.messages',
41     'django.contrib.staticfiles',
42 ]
43
44 MIDDLEWARE = [
45     'django.middleware.security.SecurityMiddleware',
46     'django.contrib.sessions.middleware.SessionMiddleware',
47     'django.middleware.common.CommonMiddleware',
48     'django.middleware.csrf.CsrfViewMiddleware',
49     'django.contrib.auth.middleware.AuthenticationMiddleware',
50     'django.contrib.messages.middleware.MessageMiddleware',
51     'django.middleware.clickjacking.XFrameOptionsMiddleware',
52 ]

```

Step 5: Edit urls.py file in todo_site

Python3



```

1 from django.contrib import admin
2 from django.urls import path
3 from todo import views
4
5 urlpatterns = [
6
7     #####home_page#####
8 ]

```

```

        path('', views.index, name="todo"),
8         #####give id no. item_id name or
        item_id=i.id #####
9         # pass item_id as primary key to remove that the todo
        with given id
10        path('del/<str:item_id>', views.remove, name="del"),
11
        #####
        #####
12        path('admin/', admin.site.urls),
13    ]

```

Step 6: Edit models.py in todo

Python3



```

1  from django.db import models
2  from django.utils import timezone
3
4
5  class Todo(models.Model):
6      title = models.CharField(max_length=100)
7      details = models.TextField()
8      date = models.DateTimeField(default=timezone.now)
9
10     def __str__(self):
11         return self.title

```

Step 7: Edit views.py in todo

Python3



```

1  from django.shortcuts import render, redirect
2  from django.contrib import messages
3
4  # import todo form and models
5
6  from .forms import TodoForm
7  from .models import Todo
8
9  #####

```

```
11
12 def index(request):
13
14     item_list = Todo.objects.order_by("-date")
15     if request.method == "POST":
16         form = TodoForm(request.POST)
17         if form.is_valid():
18             form.save()
19             return redirect('todo')
20     form = TodoForm()
21
22     page = {
23         "forms": form,
24         "list": item_list,
25         "title": "TODO LIST",
26     }
27     return render(request, 'todo/index.html', page)
28
29
30 ### function to remove item, it receive todo item_id as
    primary key from url ##
31 def remove(request, item_id):
32     item = Todo.objects.get(id=item_id)
33     item.delete()
34     messages.info(request, "item removed !!!")
35     return redirect('todo')
```

Step 8: Now create a forms.py in todo

Python3



```
1 from django import forms
2 from .models import Todo
3
4
5 class TodoForm(forms.ModelForm):
6     class Meta:
7         model = Todo
8         fields = "__all__"
```

Step 9: Register models to admin

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

Step 10: Create templates/todo/index.html

HTML



```
1 <!DOCTYPE html>
2 <html lang="en" dir="ltr">
3
4 <head>
5
6     <meta charset="utf-8">
7     <title>{{title}}</title>
8     <meta name="viewport" content="width=device-width,
9 initial-scale=1">
10    <link rel="stylesheet"
11 href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bo
12 otstrap.min.css">
13    <script
14 src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jque
15 ry.min.js"></script>
16    <script
17 src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/boot
18 strap.min.js"></script>
19
20 <!--style-->
21 <style>
22 .card {
23
24     box-shadow: 0 4px 8px 0 rgba(0,0,0,0.5),
25                 0 6px 20px 0 rgba(0,0,0,0.39);
26     background: lightpink;
27     margin-bottom : 5%;
28     border-radius: 25px;
29     padding : 2%;
30     overflow: auto;
31     resize: both;
32     text-overflow: ellipsis;
33 }
34
```

```

    .card:hover{
27         background: lightblue;
28     }
29
30     .submit_form{
31
32         text-align: center;
33         padding: 3%;
34         background: pink;
35         border-radius: 25px;
36         box-shadow: 0 4px 8px 0 rgba(0,0,0,0.4),
37                     0 6px 20px 0 rgba(0,0,0,0.36);
38     }
39 </style>
40
41 </head>
42
43 <body class="container-fluid">
44
45     {% if messages %}
46     {% for message in messages %}
47     <div class="alert alert-info">
48         <strong>{{message}}</strong>
49     </div>
50     {% endfor %}
51     {% endif %}
52
53     <center class="row">
54         <h1><i>__TODO LIST__</i></h1>
55         <hr />
56     </center>
57
58     <div class="row">
59
60         <div class="col-md-8">
61
62             {% for i in list %}
63             <div class="card">
64                 <center><b>{{i.title}}</b></center>
65                 <hr/>
66                 {{i.date}}
67                 <hr/>
68                 {{i.details}}
```

```

        <br />
70        <br />
71        <form action="/del/{{i.id}}" method="POST" style="
padding-right: 4%; padding-bottom: 3%;">
72            {% csrf_token %}
73            <button value="remove" type="submit" class="btn
btn-primary" style="float: right;"><span class="glyphicon
glyphicon-trash"></span> &nbsp; remove</button>
74        </form>
75    </div>
76    {% endfor%}
77</div>
78<div class="col-md-1"> </div>
79<div class="col-md-3" >
80    <div class="submit_form">
81        <form method="POST">
82            {% csrf_token %}
83            {{forms}}
84            <center>
85                <input type="submit" class="btn btn-default"
value="submit" />
86            </center>
87        </form>
88    </div>
89</div>
90</div>
91</body>
92
93</html>

```

Step 11: Migrations Files to the Database

```
python manage.py makemigrations
python manage.py migrate
```

Step 12: Start the server by typing the following command in the terminal

```
python manage.py runserver
```

Output:

Open the web browser and enter <http://127.0.0.1:8000/> as the URL.

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