

Django

Command Prompt

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.3570]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Anakin>pip install django
Collecting django
  Obtaining dependency information for django from https://files.pythonhosted.org/packages/b9/45/707dfc56f381222c1c798503546cb390934ab246fc45b5051ef66e31099c/Django-4.2.6-py3-none-any.whl.metadata
  Downloading Django-4.2.6-py3-none-any.whl.metadata (4.1 kB)
  Collecting asgiref<4,>=3.6.0 (from django)
    Obtaining dependency information for asgiref<4,>=3.6.0 from https://files.pythonhosted.org/packages/9b/80/b9051a4a07ad231558fcd8ffc89232711b4e618c15cb7a392a17384bbee/asgiref-3.7.2-py3-none-any.whl.metadata
    Downloading asgiref-3.7.2-py3-none-any.whl.metadata (9.2 kB)
  Collecting sqlparse>=0.3.1 (from django)
    Downloading sqlparse-0.4.4-py3-none-any.whl (41 kB)
----- 41.2/41.2 kB 283.9 kB/s eta 0:00:00
Collecting tzdata (from django)
  Downloading tzdata-2023.3-py2.py3-none-any.whl (341 kB)
----- 341.8/341.8 kB 307.6 kB/s eta 0:00:00
Downloading Django-4.2.6-py3-none-any.whl (8.0 MB)
----- 8.0/8.0 MB 379.5 kB/s eta 0:00:00
Downloading asgiref-3.7.2-py3-none-any.whl (24 kB)
Installing collected packages: tzdata, sqlparse, asgiref, django
Successfully installed asgiref-3.7.2 django-4.2.6 sqlparse-0.4.4 tzdata-2023.3

[notice] A new release of pip is available: 23.2.1 -> 23.3.1
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\Users\Anakin>
```

Creating CRUD

settings.py

```
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      'myapp',
41  ]
42
```

urls.py

```
urls.py ×
myproject > urls.py > ...
1  from django.contrib import admin
2  from django.urls import path
3  from myapp import views
4
5  urlpatterns = [
6      path('admin/', admin.site.urls),
7      path('', views.index, name='index'),
8      path('addnew', views.addnew, name='addnew'),
9      path('edit/<int:id>', views.edit, name='edit'),
10     path('update/<int:id>', views.update, name='update'),
11     path('delete/<int:id>', views.destroy, name='destroy'),
12 ]
13
14
```

models.py

```
models.py ×
myapp > models.py > ...
1  from django.db import models
2
3  # Create your models here.
4  #make sure to use migrations and migrate everytime a model is added or removed.
5  class Student(models.Model):
6      name = models.CharField(max_length=100)
7      email = models.EmailField()
8      contact = models.CharField(max_length=15)
9
10     class Meta:
11         db_table = "tblemployee"
```

forms.py

```
forms.py X
myapp > forms.py > ...
1  from django import forms
2  from myapp.models import Student
3  #this file is manually created for forms attribute
4  class StudentForm(forms.ModelForm):
5      class Meta:
6          model = Student
7          fields = ['name', 'contact', 'email']
8          widgets = { 'name': forms.TextInput(attrs={ 'class': 'form-control' }),
9                      'email': forms.EmailInput(attrs={ 'class': 'form-control' }),
10                     'contact': forms.TextInput(attrs={ 'class': 'form-control' }),
11                 }
12
```

views.py

views.py X

myapp > views.py > ...

```
1  from django.shortcuts import render, redirect
2  from myapp.forms import StudentForm
3  from myapp.models import Student
4
5  # Create your views here.
6  def addnew(request):
7      if request.method == "POST":
8          form = StudentForm(request.POST)
9          if form.is_valid():
10             try:
11                 form.save()
12                 return redirect('/')
13             except:
14                 pass
15      else:
16          form = StudentForm()
17          return render(request, 'index.html', {'form': form})
18
19  def index(request):
20      students = Student.objects.all()
21      return render(request, "show.html", {'students': students})
22
23  def edit(request, id):
24      student = Student.objects.get(id=id)
25      return render(request, 'edit.html', {'student': student})
26
27  def update(request, id):
28      student = Student.objects.get(id=id)
29      form = StudentForm(request.POST, instance = student)
30      if form.is_valid():
31          form.save()
32          return redirect("/")
33
34      return render(request, 'edit.html', {'student': student})
35
36  def destroy(request, id):
37      student = Student.objects.get(id=id)
38      student.delete()
39      return redirect("/")
```

base.html

```
base.html X
myapp > templates > base.html > html
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8">
5     <title>{% block title %}{% endblock %}</title>
6     {% load static %}
7     <link rel="stylesheet" type="text/css" href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"/>
8     <link rel="stylesheet" type="text/css" href="https://cdn.datatables.net/1.12.0/css/jquery.dataTables.min.css"/>
9     <meta charset="UTF-8" name="viewport" content="width=device-width, initial-scale=1"/>
10 </head>
11 <body>
12     <div class="container">
13         <div class="row">
14             <h4>Django CRUD Student Information System</h4>
15             &nbsp;
16             &nbsp;
17             {% block content %}{% endblock %}
18         </div>
19     </div>
20 </body>
21 </html>
```

edit.html

```
edit.html X
myapp > templates > edit.html > ...
1 {% extends "base.html" %}
2
3 {% block title %}Add New Student Records{% endblock title %}
4
5 {% block content %}
6     <div class="col-md-12">
7         <form method="POST" class="post-form" action="/update/{{student.id}}">
8             {% csrf_token %}
9             <div class="container">
10                 <div class="col-12">
11                     <h3>Update Details</h3>
12                 </div>
13                 <div class="mb-3">
14                     <label>Student ID:</label>
15                     <input type="text" class="form-control" name="id" id="id_id" required maxlength="20" value="{{ student.id }}" />
16                 </div>
17                 <div class="mb-3">
18                     <label>Name:</label>
19                     <input type="text" class="form-control" name="name" id="id_name" required maxlength="100" value="{{ student.name }}" />
20                 </div>
21                 <div class="mb-3">
22                     <label>Email:</label>
23                     <input type="email" class="form-control" name="email" id="id_email" required maxlength="254" value="{{ student.email }}" />
24                 </div>
25                 <div class="mb-3">
26                     <label>Contact:</label>
27                     <input type="text" class="form-control" name="contact" id="id_contact" required maxlength="15" value="{{ student.contact }}" />
28                 </div>
29                 <div class="mb-3">
30                     <button type="submit" class="btn btn-success btn-lg">Update</button>
31                 </div>
32             </div>
33         </form>
34     {% endblock content %}
35
```

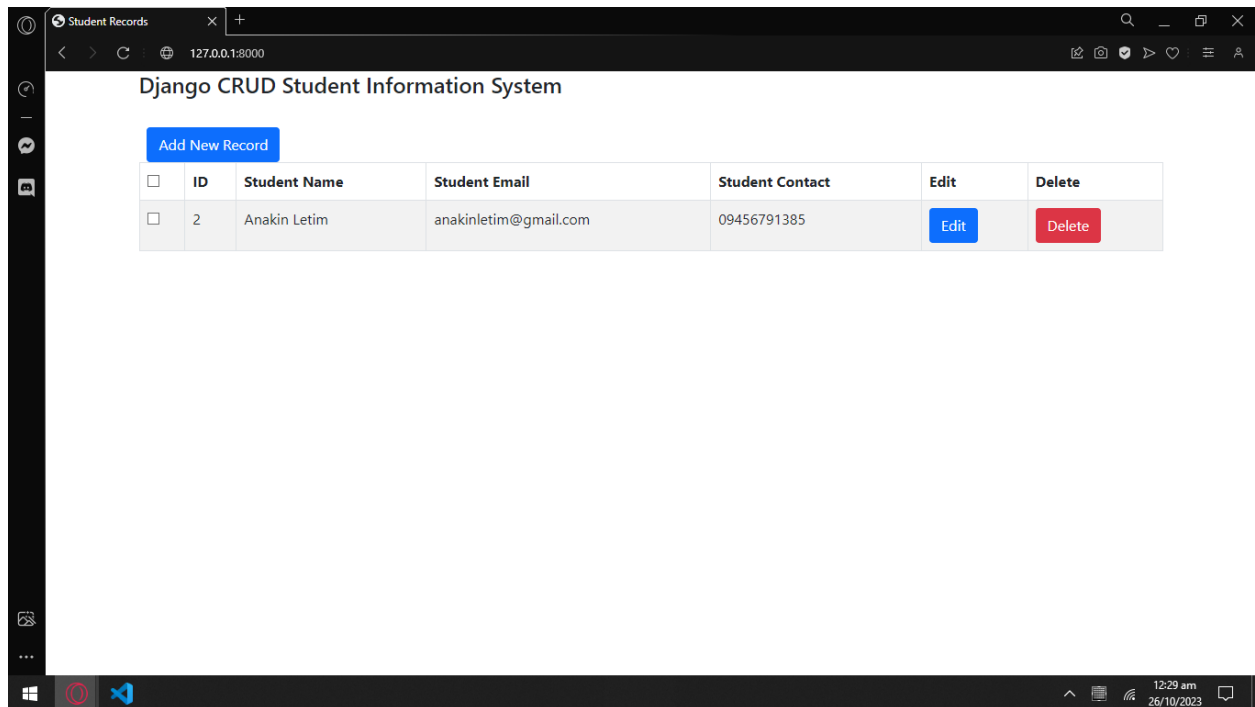
index.html

```
index.html X
myapp > templates > index.html > ...
1  {% extends "base.html" %}
2
3  {% block title %}Add Student{% endblock title %}
4
5  {% block content %}
6  <div class="col-md-12">
7      <form method="POST" class="post-form" action="/addnew">
8          {% csrf_token %}
9          <div class="container">
10             <div class="col-12">
11                 <h3>Enter Details</h3>
12             </div>
13
14             <div class="mb-3">
15                 <label>Student Name:</label>
16                 {{ form.name }}
17             </div>
18             <div class="mb-3">
19                 <label>Email:</label>
20                 {{ form.email }}
21             </div>
22             <div class="mb-3">
23                 <label>Contact:</label>
24                 {{ form.contact }}
25             </div>
26             <div class="mb-3">
27                 <button type="submit" class="btn btn-primary">Submit</button>
28             </div>
29         </div>
30     </form>
31 </div>
32 {% endblock content %}
33
```

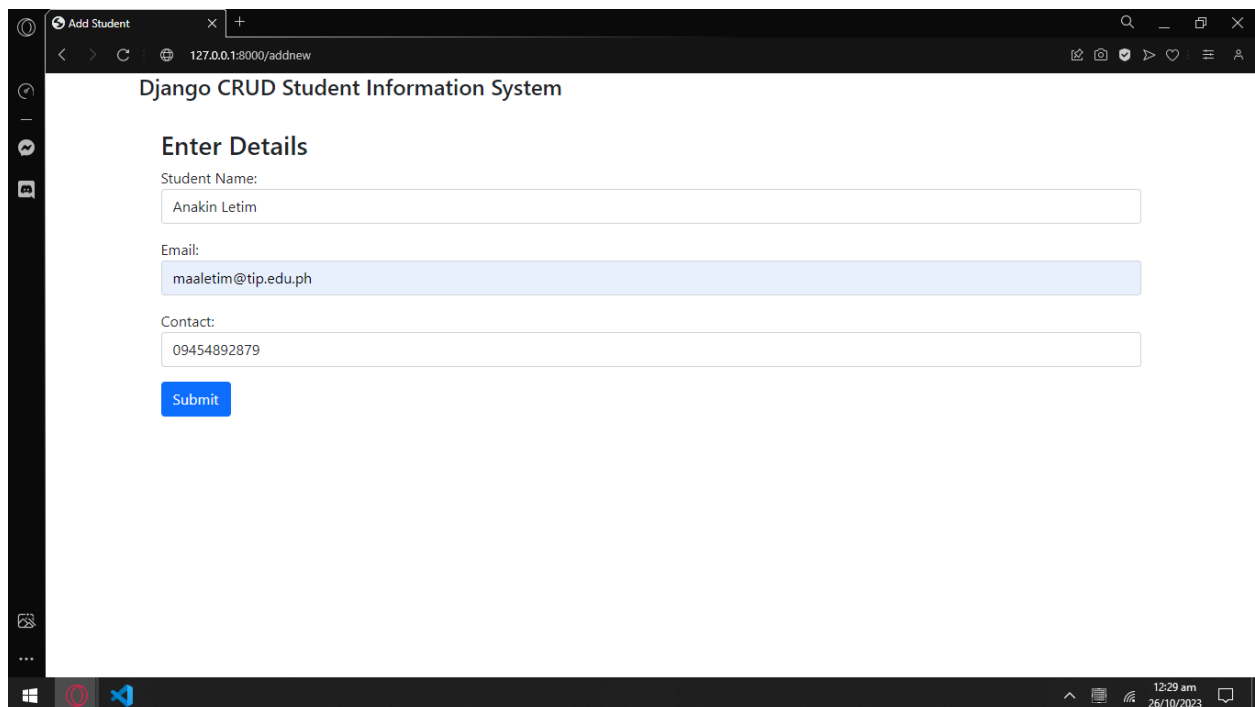
show.html

```
show.html X
myapp > templates > show.html > ...
1  {% extends "base.html" %}
2
3  {% block title %}Student Records{% endblock title %}
4
5  {% block content %}
6      <div class="col-md-12">
7          &nbsp;
8          <span><a href="/addnew" class="btn btn-primary">Add New Record</a></span>
9
10         <div class="table-responsive">
11             <table id="bootstrapdatatable" class="table table-striped table-bordered" width="100%">
12                 <thead>
13                     <th><input type="checkbox" id="checkall" /></th>
14                     <th>ID</th>
15                     <th>Student Name</th>
16                     <th>Student Email</th>
17                     <th>Student Contact</th>
18                     <th>Edit</th>
19                     <th>Delete</th>
20                 </thead>
21                 <tbody>
22                     {% for student in students %}
23                         <tr>
24                             <td><input type="checkbox" class="checkthis" /></td>
25                             <td>{{ student.id }}</td>
26                             <td>{{ student.name }}</td>
27                             <td>{{ student.email }}</td>
28                             <td>{{ student.contact }}</td>
29                             <td><a href="/edit/{{ student.id }}" class="btn btn-primary">Edit</a></td>
30                             <td><a href="/delete/{{ student.id }}" class="btn btn-danger">Delete</a></td>
31                         </tr>
32                     {% endfor %}
33                 </tbody>
34             </table>
35         </div>
36     </div>
37 {% endblock content %}
38
```

Output



Add Student



Edit/Update Student

Django CRUD Student Information System

Update Details

Student ID:

Name:

Email:

Contact:

Django CRUD Student Information System

[Add New Record](#)

<input type="checkbox"/>	ID	Student Name	Student Email	Student Contact	Edit	Delete
<input type="checkbox"/>	2	Anakin Sevilla Letim	anakinletim@gmail.com	09456791385	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
<input type="checkbox"/>	3	Anakin Letim	maaletim@tip.edu.ph	09454892879	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

Delete Student

Student Records

127.0.0.1:8000

Django CRUD Student Information System

Add New Record

<input type="checkbox"/>	ID	Student Name	Student Email	Student Contact	Edit	Delete
<input type="checkbox"/>	3	Anakin Letim	maaletim@tip.edu.ph	09454892879	Edit	Delete

12:32 am
26/10/2023