

# CM3035 Advanced Web Development

Lesson 9

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# Import CSV file

settings.py

```
30
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     'L8app.apps.L8AppConfig',
41     'rest_framework',
42     'django_extensions',
43 ]
44
```

# Import CSV file

L8proj/urls.py

```
4      2. Add a URL to urlpatterns: path('blog/
5      """
6      from django.contrib import admin
7      from django.urls import path, include
8
9      urlpatterns = [
10         path('admin/', admin.site.urls),
11         path('', include('L8app.urls')),
12     ]
13
```

# Import CSV file

L8app/urls.py

```
models.py  |  urls.py — L8app  |  views.py  |  loadSequence.py  |  settings.py  |  
1  |  from django.urls import path  
2  |  from .views import *  
3  |  from . import views  
4  |  
5  |  urlpatterns = [  
6  |      path('proteinSequence/', views.proteinSequence, name='proteinSequence')  
7  |  ]  
8  |
```

# Import CSV file

models.py

```
models.py  urls.py — L8app  views.py  loadSequence.py  settings.py

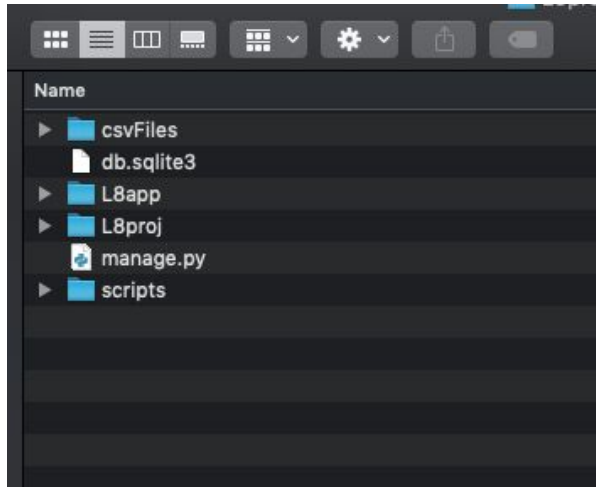
from django.db import models

class ProteinSequence(models.Model):
    protein_id = models.CharField(primary_key=True , max_length=50)
    sequence = models.CharField(max_length=255)

    def __str__(self):
        return self.protein_id
```

# Import CSV file

L8proj/scripts/loadSequence.py



```
loadSequence.py — /Desktop/djangoven/L8proj/scripts
models.py  urls.py — L8app  views.py  loadSequence.py  settings.py  urls.py — L8p
1 from L8app.models import ProteinSequence
2 import csv
3
4
5 def run():
6     with open('csvFiles/sequences.csv') as sequences:
7         readerSequences = csv.reader(sequences)
8         next(readerSequences) # Advance past the header
9
10        ProteinSequence.objects.all().delete()
11
12        for row in readerSequences:
13            proteinSequence = ProteinSequence(protein_id=row[0] , sequence =row[1])
14            proteinSequence.save()
15
16
17
```

# Import CSV file

Sqlite3 command activate db.sqlite3

```
^Z
[6]+  Stopped                  python3 manage.py runserver
(myvenv) (base) Ben:L8proj ben$ ls
L8app      L8proj      csvFiles      db.sqlite3      manage.py      scripts
(myvenv) (base) Ben:L8proj ben$ sqlite3 db.sqlite3
SQLite version 3.35.4 2021-04-02 15:20:15
Enter ".help" for usage hints.
[sqlite> .tables
L8app_dataset              auth_user_groups
L8app_proteinsequence      auth_user_user_permissions
auth_group                 django_admin_log
auth_group_permissions     django_content_type
auth_permission            django_migrations
auth_user                  django_session
sqlite> █
```

# Import CSV file

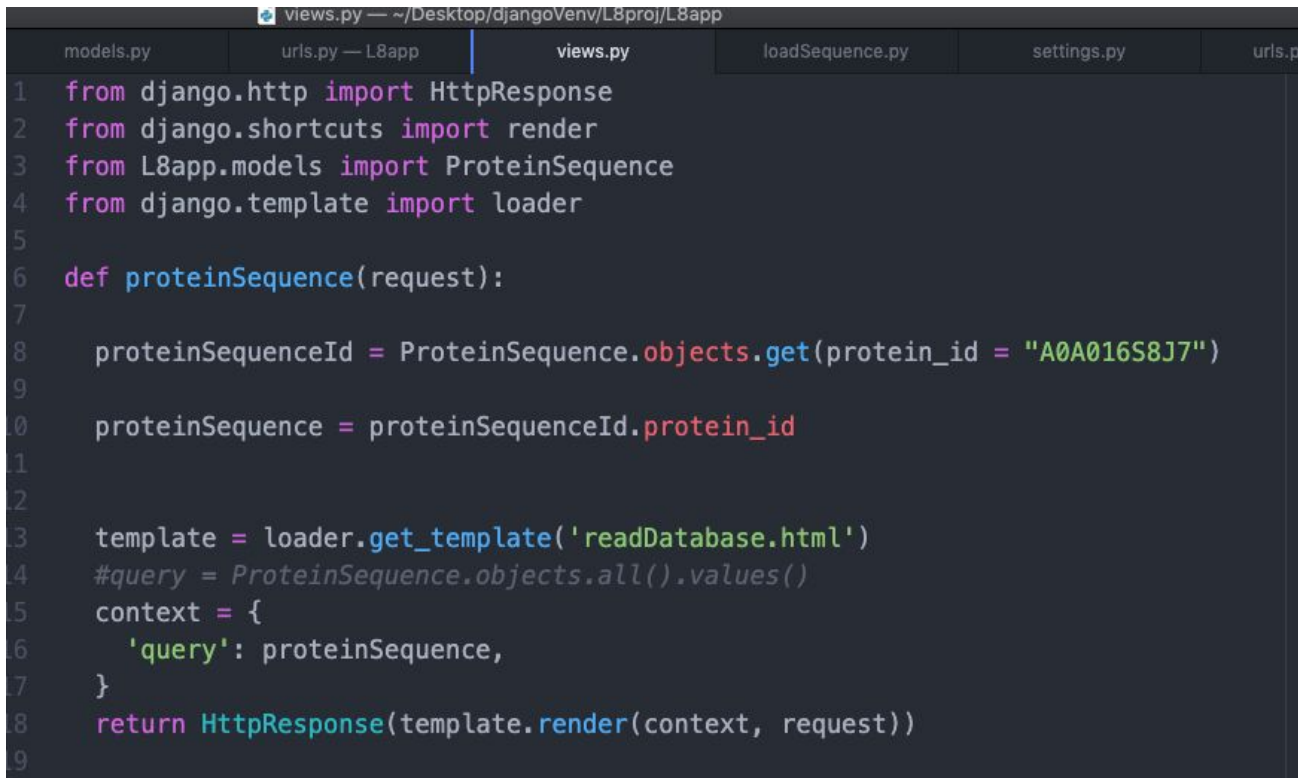
Show all data command

```
auth_group_permissions      django_content_type
auth_permission             django_migrations
auth_user                   django_session
sqlite> select * from l8app_proteinsequence;
MAPVKVGINGFGGRIGRIVFRNAAEHPEIEVVAVNDPFIDTEYAAAYMLKYDSSHGIFKGDIKKEADGLVVNGKKVKFFTERDPSAIPWKSAGAEYIVESTGVFTTTDKAKAHLAGGAKKVVISAPSADAPMYVMGVNEKT
GKADVISNASCTTNCLAPLAKVIHDKFTIVEGLMTTVHSYTATQKTVDGPGSKDWRGGRGAAQNIIPSSTGAAKAVGKVIPDLNGKLTGMSMRVPTANVSVVDLTARIEKGASYDEIKEAIKEAANGPLKGILAYTEDD
SSDMNGNTNSSIFDAKAGISLNKNFVKLVSWYDNEWGYSRRVLDLLAYIAKVDAGK|A0A014PQC0
MVGVGFLLVLFSSSVLGILNAGVQLRIEELFDTPGHTNNWAVLVCTSRFWFNRYRHVSNVLALYHTVKRLGIPDSNIILMLAEDVPCNPRNPRPEAAVLSA|A0A016S8J7
METTLFNAPINIPVSKGVKQGDITISPKLFSAGLEMVIRKLNLEKGINIDGEHLTHLRFADDLVLPGEDADTVQKMLRELEIEGRKVGLKINRLKTKIMRSHCAPKMTITLKGEIIEEGGSYYVLGQGVNTSNDLTDGIS
RKAGWLKFNEEKEILLSKTDPKRKAEIFNKTVLPAMIYGCETWAPTKEERKL|A0A016SK08
```



# Import CSV file

## views.py

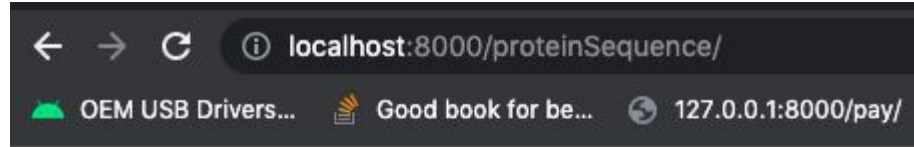


The image shows a code editor window with the title bar "views.py — ~/Desktop/djangoVenv/L8proj/L8app". The editor has several tabs: "models.py", "urls.py — L8app", "views.py" (which is the active tab), "loadSequence.py", "settings.py", and "urls.p". The code in the "views.py" tab is as follows:

```
1 from django.http import HttpResponse
2 from django.shortcuts import render
3 from L8app.models import ProteinSequence
4 from django.template import loader
5
6 def proteinSequence(request):
7
8     proteinSequenceId = ProteinSequence.objects.get(protein_id = "A0A016S8J7")
9
10    proteinSequence = proteinSequenceId.protein_id
11
12
13    template = loader.get_template('readDatabase.html')
14    #query = ProteinSequence.objects.all().values()
15    context = {
16        'query': proteinSequence,
17    }
18    return HttpResponse(template.render(context, request))
19
```

# Import CSV file

Browser output



**Protien Sequence:**

**A0A016S8J7**

# Import CSV file

## Html templates

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

<h1>Protien Sequence:</h1>
<h1>{{ query }}</h1>

</body>
</html>
```

# Import CSV file

Browser output to all Data in table

```
models.py  urls.py — L8app  views.py  loadSequence.py  settings.py  urls.py —
from django.http import HttpResponse
from django.shortcuts import render
from L8app.models import ProteinSequence
from django.template import loader

def proteinSequence(request):

    #proteinSequenceId = ProteinSequence.objects.get(protein_id = "A0A016S8J7")

    #proteinSequence = proteinSequenceId.protein_id

    allData = ProteinSequence.objects.all().values()

    template = loader.get_template('readDatabase.html')
    #query = ProteinSequence.objects.all().values()
    context = {
        'query': allData,
    }
    return HttpResponse(template.render(context, request))
```

# Import CSV file

Browser output to all Data in table

**Protien Sequence:**

```
<QuerySet [{ 'protein_id': 'A0A014PQC0', 'sequence':  
'MAPVKVGINGFGRIGRIVFRNAAEHPEIEVVAVNDPFIDTEYA'  
{ 'protein_id': 'A0A016S8J7', 'sequence':  
'MVIGVGFLLVLFSSSVLGILNAGVQLRIEELFDTPGHTNNWA'  
{ 'protein_id': 'A0A016SK08', 'sequence':  
'METTLFNAPINIPVSKGVKQGD TISPKLFSAGLEMVIRKLNLI'  
{ 'protein_id': 'A0A016SLU4', 'sequence':  
'MSEAAPVETFKAPPLPLHKAPKHAVNEVSSTTDPEAIEKITMD'  
{ 'protein_id': 'A0A016SS41', 'sequence':
```

End of Lesson 9