

FACULTAD DE INGENIERIA EN ELECTRICIDAD Y COMPUTACION  
DESARROLLO DE APLICACIONES WEB  
I TÉRMINO 2019  
TRABAJO AUTÓNOMO 3

Nombre:	Milton Fabrizio García Cox
Paralelo:	2

### 1. Descripción del conjunto de datos

*Describe el conjunto de datos, cite la fuente y agregue la metadata<sup>1</sup> del conjunto de datos. Agregue las capturas de pantalla que sean necesarias.*

Los datos que se van a utilizar para la realización del trabajo han sido extraídos de Kaggle, específicamente del sitio <https://www.kaggle.com/datafiniti/pizza-restaurants-and-the-pizza-they-sell>.

Dentro del sitio se expone un dataset con información de Restaurantes-Pizzerías ubicados en diferentes ciudades de Estados Unidos. El título original de la publicación es "Pizza Restaurants and the Pizza They Sell"<sup>2</sup> (Datafiniti, 2019) con una lista de 3510 pizzas de diferentes restaurantes. Las variables o campos tomados en cuenta para cada Menú ofertado por las Pizzerías son los siguientes:

**id\_pizzeria:** identificador para cada pizzería que puede repetirse ya que una misma pizzería oferta diferentes especialidades o Menús.

**Address:** dirección física válida dentro del territorio norteamericano donde puede ser ubicado el restaurante.

**Categories:** define la clase de restaurante o sitio: Bar, Club, Restaurante General, Cafetería, Pastelería, entre otros.

**City:** ciudad ubicada dentro del territorio de Estados Unidos.

Country: únicamente se ha tomado en cuenta a Estados Unidos. Todos sus valores son "USA"

**Keys:** string plano de palabras clave que representan al restaurante con la combinación de ciudad, dirección y coordenadas.

**Latitude:** componente de latitud de las coordenadas geográficas.

**Longitude:** componente de longitud de las coordenadas geográficas.

**menuPageURL:** url del sitio web donde puede ser encontrado el menú e información general del restaurante.

**menusamountMax:** el valor más alto de la pizza de especialidad ofertada.

**menusamountMin:** el valor más bajo de la pizza de especialidad ofertada.

---

<sup>1</sup> Metadata. <https://www.powerdata.es/metadatos>

<sup>2</sup> Dataset. <https://www.kaggle.com/datafiniti/pizza-restaurants-and-the-pizza-they-sell>.

**Menuscurrency:** principal moneda que se maneja para los cobros. Por defecto es el dólar Americano.

**menusdateSeen:** fecha y hora de la publicación del menú más actualizado.

**Menusdescription:** breve descripción del menú y los ingredientes de la pizza.

**Menuname:** título de la pizza de especialidad.

**Name:** Nombre o razón social de la Pizzería.

**postalCode:** código postal de 5 dígitos o menos.

**priceRangeCurrency:** principal moneda que se maneja para los cobros del Menú. Por defecto es el dólar Americano.

**priceRangeMin:** ingresos diarios mínimos.

**priceRangeMax:** ingresos diarios máximos.

**Province:** nombre del barrio o vecindario en que se ubica el restaurante.

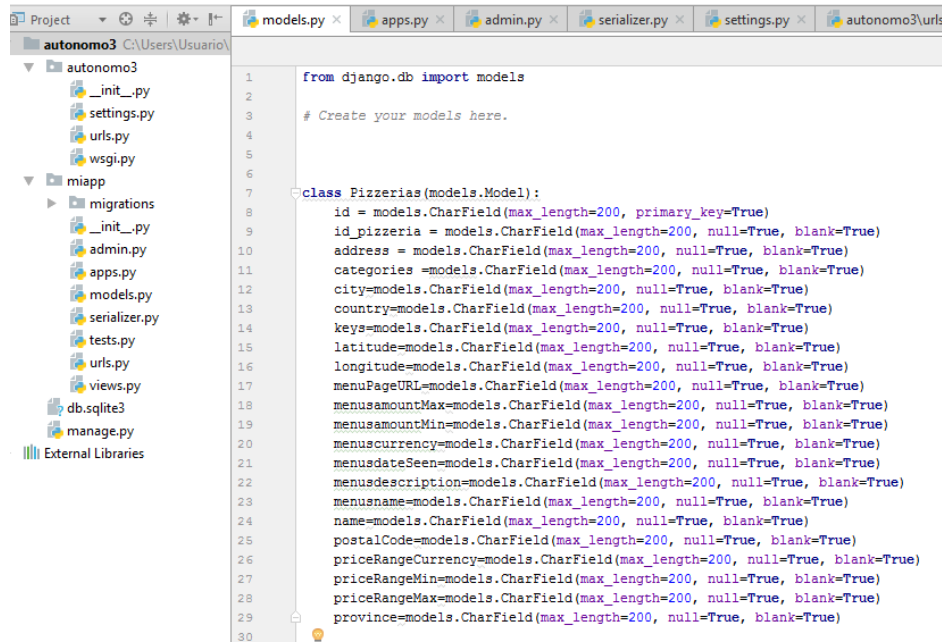
La información ha sido descargada como un archivo csv para posteriormente cargarla en una base de base de datos no relacional local de MongoDB.

```
C:\Users\Usuario\Downloads\DAW\autonomo3\8358_1_nuevo.csv - Notepad++
Archivo  Editar  Buscar  Vista  Codificación  Lenguaje  Configuración  Herramientas  Macro  Ejecutar  Plugins  Ventana  ?
8358_1_nuevo.csv
1  id,address,categories,city,country,keys,latitude,longitude,menuPageURL,menus.amountMax,menus.amountMin,menus.currency,menus.dateSeen,menus.description,menus.name,name,post
2  AVwc_6KEIN2L1WUfrKAM,Cascade Village Mall Across From Target,Pizza Place,Bend,US,us/or/bend/cascadevillagemallacrossfromtarget/~2134715703,44.10266476,-121.3007971,,22.5,,1
3  AVwc_6KEIN2L1WUfrKAM,Cascade Village Mall Across From Target,Pizza Place,Bend,US,us/or/bend/cascadevillagemallacrossfromtarget/~2134715703,44.10266476,-121.3007971,,18.95,
4  AVwc_6qRByjoQcKkcxw,148 S Barrington Ave,"American Restaurant,Bar,Bakery",Los Angeles,US,us/brentwood/losangeles/148sbarringtonave/~1516414008,34.06456347,-118.4690173,,1
5  AVwc_6qRByjoQcKkcxw,148 S Barrington Ave,"American Restaurant,Bar,Bakery",Los Angeles,US,us/brentwood/losangeles/148sbarringtonave/~1516414008,34.06456347,-118.4690173,,1
6  AVwc_6qRByjoQcKkcxw,148 S Barrington Ave,"American Restaurant,Bar,Bakery",Los Angeles,US,us/brentwood/losangeles/148sbarringtonave/~1516414008,34.06456347,-118.4690173,,1
7  AVwc_6qRByjoQcKkcxw,148 S Barrington Ave,"American Restaurant,Bar,Bakery",Los Angeles,US,us/brentwood/losangeles/148sbarringtonave/~1516414008,34.06456347,-118.4690173,,1
8  AVwc_6qRByjoQcKkcxw,148 S Barrington Ave,"American Restaurant,Bar,Bakery",Los Angeles,US,us/brentwood/losangeles/148sbarringtonave/~1516414008,34.06456347,-118.4690173,,1
9  AVwc_7d_IN2L1WUfrKMN,5142 Hollywood Blvd,Pizza Place,Los Angeles,US,us/losfeliz/losangeles/5142hollywoodblvd/~286711359,34.1017424,-118.3019729,,10.99,7.99,USD,2016-06-14T
10 AVwc_7d_IN2L1WUfrKMN,5142 Hollywood Blvd,Pizza Place,Los Angeles,US,us/losfeliz/losangeles/5142hollywoodblvd/~286711359,34.1017424,-118.3019729,,11.99,7.99,USD,2016-06-14T
11 AVwc_7d_IN2L1WUfrKMN,5142 Hollywood Blvd,Pizza Place,Los Angeles,US,us/losfeliz/losangeles/5142hollywoodblvd/~286711359,34.1017424,-118.3019729,,16.99,11.99,USD,2016-06-14T
12 AVwc_7d_IN2L1WUfrKMN,5142 Hollywood Blvd,Pizza Place,Los Angeles,US,us/losfeliz/losangeles/5142hollywoodblvd/~286711359,34.1017424,-118.3019729,,5.99,5.99,USD,2016-06-14T
13 AVwc_7d_IN2L1WUfrKMN,5142 Hollywood Blvd,Pizza Place,Los Angeles,US,us/losfeliz/losangeles/5142hollywoodblvd/~286711359,34.1017424,-118.3019729,,5.99,5.99,USD,2016-06-14T
14 AVwc_7d_IN2L1WUfrKMN,5142 Hollywood Blvd,Pizza Place,Los Angeles,US,us/losfeliz/losangeles/5142hollywoodblvd/~286711359,34.1017424,-118.3019729,,16.99,10.99,USD,2016-06-14T
15 AVwc_8WABByjoQcKkdxDA,801 Saint Emanuel St,"Bar,Beer Garden,Sports Bar,Sports Bar,Bar and Beer Garden",Houston,US,us/tx/houston/801saintemanuelst/960946322,29.75247947,-95.
16 AVwc_ab4IN2L1WUfrEps,478 South St,"American Restaurant, Seafood Restaurant, and French Restaurant",Hyannis,US,us/ma/hyannis/478southst/~1587858019,41.64827787,-70.29134466
17 AVwc_ab4IN2L1WUfrEps,478 South St,"American Restaurant, Seafood Restaurant, and French Restaurant",Hyannis,US,us/ma/hyannis/478southst/~1587858019,41.64827787,-70.29134466
18 AVwc_dHKkufWRAB51Kei,1 N University Hl,"University,University University",Provo,US,us/ut/provo/1nuniversityhl/~27460736,40.25083927,-111.6492677,,,,,"2016-03-31T02:22:37Z,
19 AVwc_dHKkufWRAB51Kei,1 N University Hl,"University,University University",Provo,US,us/ut/provo/1nuniversityhl/~27460736,40.25083927,-111.6492677,,,,,"2016-03-31T02:22:37Z,
20 AVwc_dHKkufWRAB51Kei,1 N University Hl,"University,University University",Provo,US,us/ut/provo/1nuniversityhl/~27460736,40.25083927,-111.6492677,,,,,"2016-03-31T02:22:37Z,
21 AVwc_dHKkufWRAB51Kei,1 N University Hl,"University,University University",Provo,US,us/ut/provo/1nuniversityhl/~27460736,40.25083927,-111.6492677,,,,,"2016-03-31T02:22:37Z,
22 AVwc_gjWBByjoQcKkYoz,9595 Six Pines Dr,"Sporting Goods Shop,Shoe Store,Sporting Goods Shop and Shoe Store Town Center,Sporting Goods Shop and Shoe Store,Sportsweat,Shoe St
23 AVwc_h3pkufrWRAB51LOO,200 E Chestnut St,"Italian Restaurant,Restaurant,Italian Restaurant Streeterville",Chicago,US,us/ontariostreet/chicago/200echestnutst/833773736,41.896
24 AVwc_h3pkufrWRAB51LOO,200 E Chestnut St,"Italian Restaurant,Restaurant,Italian Restaurant Streeterville",Chicago,US,us/ontariostreet/chicago/200echestnutst/833773736,41.896
25 AVwc_h3pkufrWRAB51LOO,200 E Chestnut St,"Italian Restaurant,Restaurant,Italian Restaurant Streeterville",Chicago,US,us/ontariostreet/chicago/200echestnutst/833773736,41.896
26 AVwc_h3pkufrWRAB51LOO,200 E Chestnut St,"Italian Restaurant,Restaurant,Italian Restaurant Streeterville",Chicago,US,us/ontariostreet/chicago/200echestnutst/833773736,41.896
27 AVwc_jdF_7pvs4fz1Izm,145 E Gay St,"Bagels,Bakeries,Restaurants,Restaurant,Breakfast Brunch & Lunch Restaurants,,Bagel Shop,Breakfast Spot,Coffee Shop",West Chester,US,us/s
28 AVwc_jdF_7pvs4fz1Izm,145 E Gay St,"Bagels,Bakeries,Restaurants,Restaurant,Breakfast Brunch & Lunch Restaurants,,Bagel Shop,Breakfast Spot,Coffee Shop",West Chester,US,us/s
29 AVwc_jdF_7pvs4fz1Izm,145 E Gay St,"Bagels,Bakeries,Restaurants,Restaurant,Breakfast Brunch & Lunch Restaurants,,Bagel Shop,Breakfast Spot,Coffee Shop",West Chester,US,us/s
30 AVwc_jdF_7pvs4fz1Izm,145 E Gay St,"Bagels,Bakeries,Restaurants,Restaurant,Breakfast Brunch & Lunch Restaurants,,Bagel Shop,Breakfast Spot,Coffee Shop",West Chester,US,us/s
31 AVwc_jdF_7pvs4fz1Izm,145 E Gay St,"Bagels,Bakeries,Restaurants,Restaurant,Breakfast Brunch & Lunch Restaurants,,Bagel Shop,Breakfast Spot,Coffee Shop",West Chester,US,us/s
32 AVwc_jdF_7pvs4fz1Izm,145 E Gay St,"Bagels,Bakeries,Restaurants,Restaurant,Breakfast Brunch & Lunch Restaurants,,Bagel Shop,Breakfast Spot,Coffee Shop",West Chester,US,us/s
33 AVwc_jdF_7pvs4fz1Izm,145 E Gay St,"Bagels,Bakeries,Restaurants,Restaurant,Breakfast Brunch & Lunch Restaurants,,Bagel Shop,Breakfast Spot,Coffee Shop",West Chester,US,us/s
34 AVwc_jdF_7pvs4fz1Izm,145 E Gay St,"Bagels,Bakeries,Restaurants,Restaurant,Breakfast Brunch & Lunch Restaurants,,Bagel Shop,Breakfast Spot,Coffee Shop",West Chester,US,us/s
35 AVwc_0hXIN2L1WUfrBOM,925 Blossom Hill Road Oakridge Mall,Restaurant,San Jose,US,us/ca/sanjose/925blossomhillroadokridgemall/~1933738733,37.250458,-121.863415,,,,,"2016-04-
36 AVwc_RyeIN2L1WUfrB_N,26900 Newport Rd,"Italian Restaurant,Pizza Place,Take Out Restaurants,Restaurants,Italian Restaurant and Pizza Place,Pizza,doctor",Menifee,US,us/ca/me
37 AVwc_RyeIN2L1WUfrB_N,26900 Newport Rd,"Italian Restaurant,Pizza Place,Take Out Restaurants,Restaurants,Italian Restaurant and Pizza Place,Pizza,doctor",Menifee,US,us/ca/me
38 AVwc_RyeIN2L1WUfrB_N,26900 Newport Rd,"Italian Restaurant,Pizza Place,Take Out Restaurants,Restaurants,Italian Restaurant and Pizza Place,Pizza,doctor",Menifee,US,us/ca/me
39 AVwc_RyeIN2L1WUfrB_N,26900 Newport Rd,"Italian Restaurant,Pizza Place,Take Out Restaurants,Restaurants,Italian Restaurant and Pizza Place,Pizza,doctor",Menifee,US,us/ca/me
40 AVwc_RyeIN2L1WUfrB_N,26900 Newport Rd,"Italian Restaurant,Pizza Place,Take Out Restaurants,Restaurants,Italian Restaurant and Pizza Place,Pizza,doctor",Menifee,US,us/ca/me
41 AVwc_RyeIN2L1WUfrB_N,26900 Newport Rd,"Italian Restaurant,Pizza Place,Take Out Restaurants,Restaurants,Italian Restaurant and Pizza Place,Pizza,doctor",Menifee,US,us/ca/me
42 AVwc_RyeIN2L1WUfrB_N,26900 Newport Rd,"Italian Restaurant,Pizza Place,Take Out Restaurants,Restaurants,Italian Restaurant and Pizza Place,Pizza,doctor",Menifee,US,us/ca/me
43 AVwc_RyeIN2L1WUfrB_N,26900 Newport Rd,"Italian Restaurant,Pizza Place,Take Out Restaurants,Restaurants,Italian Restaurant and Pizza Place,Pizza,doctor",Menifee,US,us/ca/me
44 AVwc_0dFIN2L1WUfrHAB,3480 S Carrier Pkwy,"Restaurants,Pizza Place Southwest Dallas,Pizza Place",Grand Prairie,US,us/tx/grandprairie/3480scarrierpkwy/~2122197789,32.685459,
45 AVwc_0dFIN2L1WUfrHAB,3480 S Carrier Pkwy,"Restaurants,Pizza Place Southwest Dallas,Pizza Place",Grand Prairie,US,us/tx/grandprairie/3480scarrierpkwy/~2122197789,32.685459,
length: 1.113.658 lines: 3.512 Ln: 3.512 Col: 1 Sel: 0|0 Windows (CR LF) UTF-8 INS
14/08/2019
```

## 2. Base de datos no relacional

**Describe la base de datos de no relacional, el tipo y los parámetros de conexión. Agregue las capturas de pantalla que sean necesarias.**

Se ha utilizado el sistema de base de datos NOSQL MongoDB. En models.py se procede a crear el modelo de Pizzerías con sus respectivos campos ya vistos dentro de la página web y el csv. Aquí cada documento u objeto insertado será un menú de Pizzería dentro de la colección “Pizzerías”.

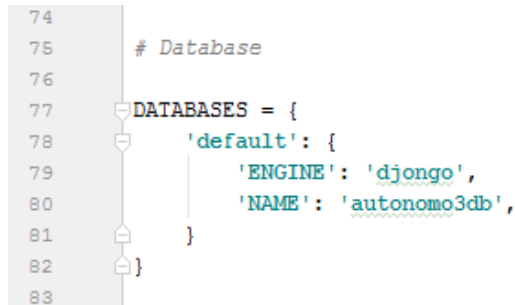


```

1  from django.db import models
2
3  # Create your models here.
4
5
6
7  class Pizzerias(models.Model):
8      id = models.CharField(max_length=200, primary_key=True)
9      id_pizzeria = models.CharField(max_length=200, null=True, blank=True)
10     address = models.CharField(max_length=200, null=True, blank=True)
11     categories = models.CharField(max_length=200, null=True, blank=True)
12     city=models.CharField(max_length=200, null=True, blank=True)
13     country=models.CharField(max_length=200, null=True, blank=True)
14     keys=models.CharField(max_length=200, null=True, blank=True)
15     latitude=models.CharField(max_length=200, null=True, blank=True)
16     longitude=models.CharField(max_length=200, null=True, blank=True)
17     menuPageURL=models.CharField(max_length=200, null=True, blank=True)
18     menuselection=models.CharField(max_length=200, null=True, blank=True)
19     menuselectionMin=models.CharField(max_length=200, null=True, blank=True)
20     menuselectionMax=models.CharField(max_length=200, null=True, blank=True)
21     menuselectionSeen=models.CharField(max_length=200, null=True, blank=True)
22     menuselectionDescription=models.CharField(max_length=200, null=True, blank=True)
23     menuselectionName=models.CharField(max_length=200, null=True, blank=True)
24     name=models.CharField(max_length=200, null=True, blank=True)
25     postalCode=models.CharField(max_length=200, null=True, blank=True)
26     priceRangeCurrency=models.CharField(max_length=200, null=True, blank=True)
27     priceRangeMin=models.CharField(max_length=200, null=True, blank=True)
28     priceRangeMax=models.CharField(max_length=200, null=True, blank=True)
29     province=models.CharField(max_length=200, null=True, blank=True)
30

```

Esta colección “Pizzerias” a su vez se encuentra dentro de la base de datos con nombre “autonomo3db” cuya conexión con Django debe configurarse en DATABASES de settings.py:



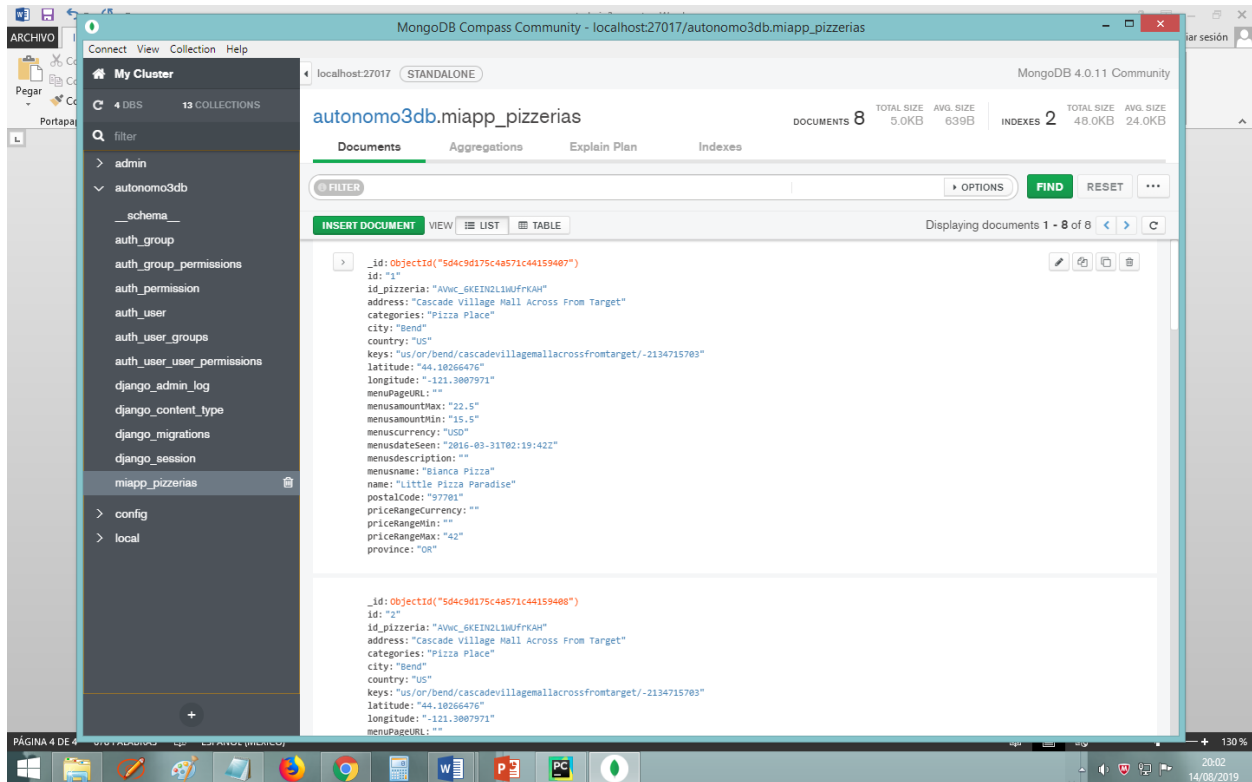
```

74
75     # Database
76
77     DATABASES = {
78         'default': {
79             'ENGINE': 'django',
80             'NAME': 'autonomo3db',
81         }
82     }
83

```

Se ha hecho uso del conector de Django con MongoDB “djongo”<sup>3</sup>. Este conector permite unificar bases de datos NOSQL de Mongo con cualquier proyecto de Django. Esto también hace posible que se puedan modificar los documentos de las colecciones de Mongo a través de la interfaz del API REST o la interfaz de Administrador, es decir que no existe algún cambio significativo en el manejo del ORM de Django. El puerto que utiliza MongoDB por defecto es el 27017. Algo muy importante de mencionar es que esta base de datos es de tipo clave-valor.

Una vez que se ha establecido la configuración para la conexión, se procede a realizar las migraciones makemigrations, migrate y se carga el archivo csv mediante Compass lo que permite observar el estado actual de la base de datos:



<sup>3</sup> Djongo. <https://github.com/nesdis/djongo>

### 3. RESTful API

**Describe los paquetes o los módulos que utilizó para generar el RESTful API. Agregue las capturas de pantalla que sean necesarias.**

Para generar el RESTful API se hace uso del toolkit que ofrece Django: Django Rest Framework<sup>4</sup> y se siguen las instrucciones de su sitio oficial <https://www.django-rest-framework.org/>. Posterior a la instalación se agrega el rest framework a las aplicaciones instaladas en settings.py del proyecto para que sus paquetes y módulos puedan ser utilizadas dentro del código.

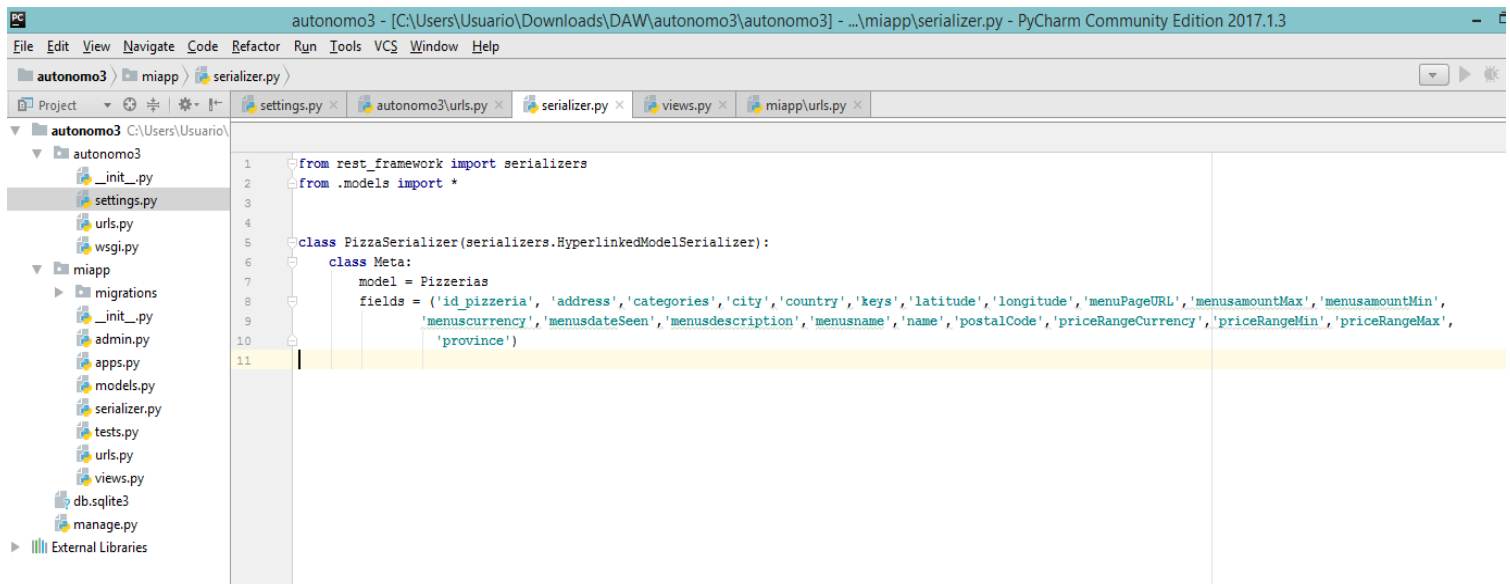
```
32
33 INSTALLED_APPS = [
34     'django.contrib.admin',
35     'django.contrib.auth',
36     'django.contrib.contenttypes',
37     'django.contrib.sessions',
38     'django.contrib.messages',
39     'django.contrib.staticfiles',
40     'miapp',
41     'rest_framework',
42 ]
```

Para la creación del API en una url determinada es necesario asignar las rutas al urlpatterns que se encuentra en urls.py de la raíz del proyecto:

```
15
16 from django.contrib import admin
17 from django.urls import path
18
19
20 from django.conf.urls import include, url
21
22
23 # this is DRF router for REST API viewsets
24 from miapp.views import *
25
26
27 # register REST API endpoints with DRF router
28 # router.register(r'tool', ToolViewSet, r"tool")
29
30 urlpatterns = [
31     # default django admin interface
32     url('admin/', admin.site.urls),
33
34     # REST API root view (generated by DRF router)
35     url(r'^api/', include('miapp.urls')),
36
37     # pure django views that don't use DRF
38     url(r'^$', index_view, {}, name='index'),
39 ]
40
41 urlpatterns += [
42     url('api/v1/auth', include('rest_framework.urls'))
43 ]
44
```

<sup>4</sup> Django Rest Framework. <https://www.django-rest-framework.org/>

Posteriormente se crea un serializador en `serializer.py` dentro del directorio de la aplicación. Este serializador es un componente del Rest Framework que debe ser creado para facilitar la conversión de estructuras en archivos JSON. En este caso la clase `PizzaSerializer` utiliza el paquete "serializers" de "rest\_framework" para importar un modelo base y a partir de este se construye la estructura de la respuesta al request que son los campos del Modelo Pizzerías:

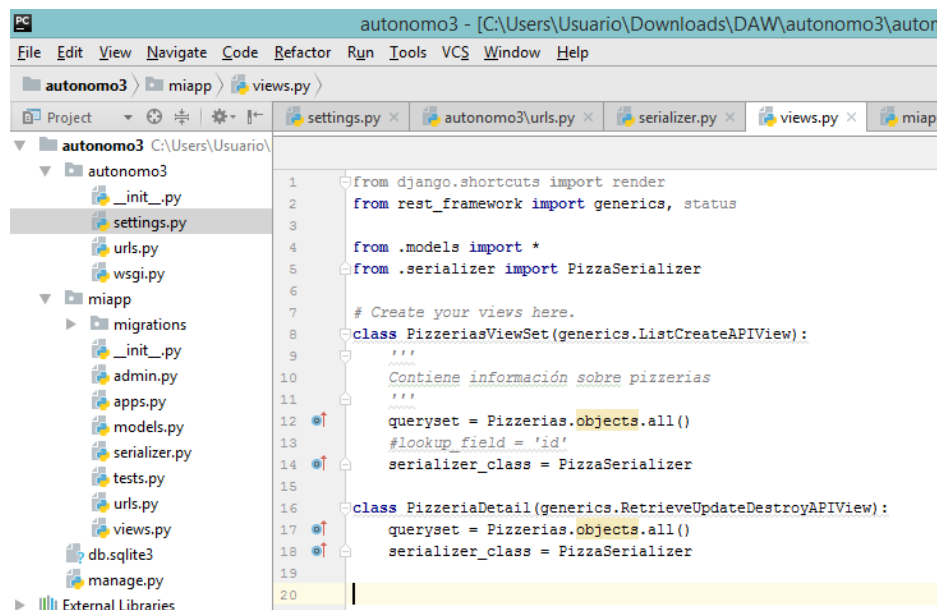


```

1  from rest_framework import serializers
2  from .models import *
3
4
5  class PizzaSerializer(serializers.HyperlinkedModelSerializer):
6      class Meta:
7          model = Pizzerias
8          fields = ('id_pizzeria', 'address', 'categories', 'city', 'country', 'keys', 'latitude', 'longitude', 'menuPageURL', 'menusamountMax', 'menusamountMin',
9                  'menuscurrency', 'menusdateSeen', 'menusdescription', 'menusname', 'name', 'postalCode', 'priceRangeCurrency', 'priceRangeMin', 'priceRangeMax',
10                 'province')
11

```

Adicionalmente es necesario el diseño de controladores que actúen de manera correcta dependiendo del tipo de request. Para esto se crean vistas que respondan a cada caso dentro de `views.py`:



```

1  from django.shortcuts import render
2  from rest_framework import generics, status
3
4  from .models import *
5  from .serializer import PizzaSerializer
6
7  # Create your views here.
8  class PizzeriasViewSet(generics.ListCreateAPIView):
9      """
10      Contiene información sobre pizzerias
11      """
12      queryset = Pizzerias.objects.all()
13      #lookup_field = 'id'
14      serializer_class = PizzaSerializer
15
16  class PizzeriaDetail(generics.RetrieveUpdateDestroyAPIView):
17      queryset = Pizzerias.objects.all()
18      serializer_class = PizzaSerializer
19
20

```

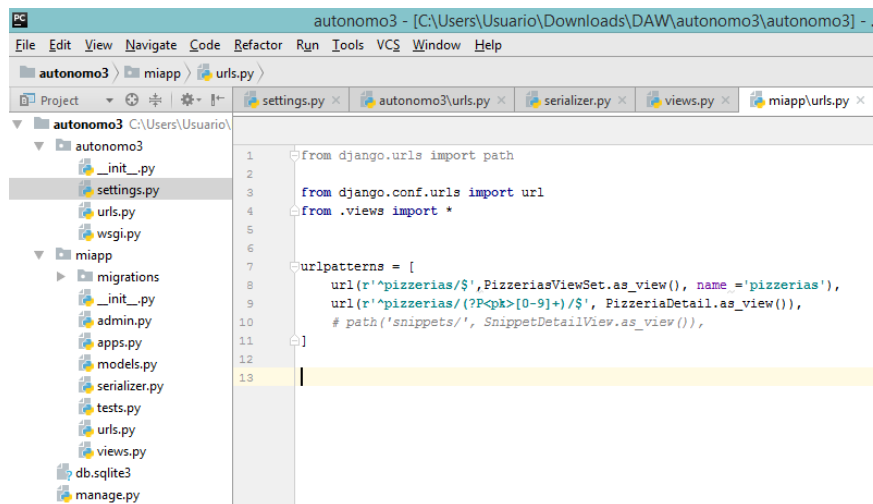
Estas vistas especiales utilizan clases genericas del paquete "generics" del rest framework de Django.

La clase PizzeriasViewSet llama a generics.ListCreateAPIView que permite la ejecución de los métodos GET y POST mediante una interfaz que por defecto proporciona el APIRest ubicada en una url que debe ser asignada posteriormente en urls.py del directorio de la aplicación.

PizzeriaDetail utiliza la clase generics.RetrieveUpdateDestroyAPIView para permitir todas las operaciones CRUD en una pizzería determinada. También es necesario importar los modelos a los cuales se desean aplicar las operaciones con su respectivo serializador, ambos son argumentos que permiten que internamente el APIRest se comunique con la base de datos y realice las operaciones necesarias.

Finalmente se debe incluir las urls del APIRest en las urls de la aplicación, para esto se agrega a urlpatterns las rutas para ingresar a las 2 vistas previamente creadas en views.py. La asignación a PizzeriasViewSet se define simplemente como "pizzerías" que al unirla junto a la url de la api que fue configurada en urls.py de la raíz del proyecto queda finalmente como "<http://localhost:8000/api/pizzerias/>".

Este sitio nos devuelve una lista de pizzerías obtenidas mediante GET mientras que se permite la creación mediante POST de un nuevo documento dentro de la colección "Pizzerias" en la Base de datos autonomo3db.



```
1 from django.urls import path
2
3 from django.conf.urls import url
4 from .views import *
5
6 urlpatterns = [
7     url(r'^pizzerias/$', PizzeriasViewSet.as_view(), name='pizzerias'),
8     url(r'^pizzerias/(?P<pk>[0-9]+)/$', PizzeriaDetail.as_view()),
9     # path('snippets/', SnippetDetailView.as_view()),
10 ]
11
12
13
```

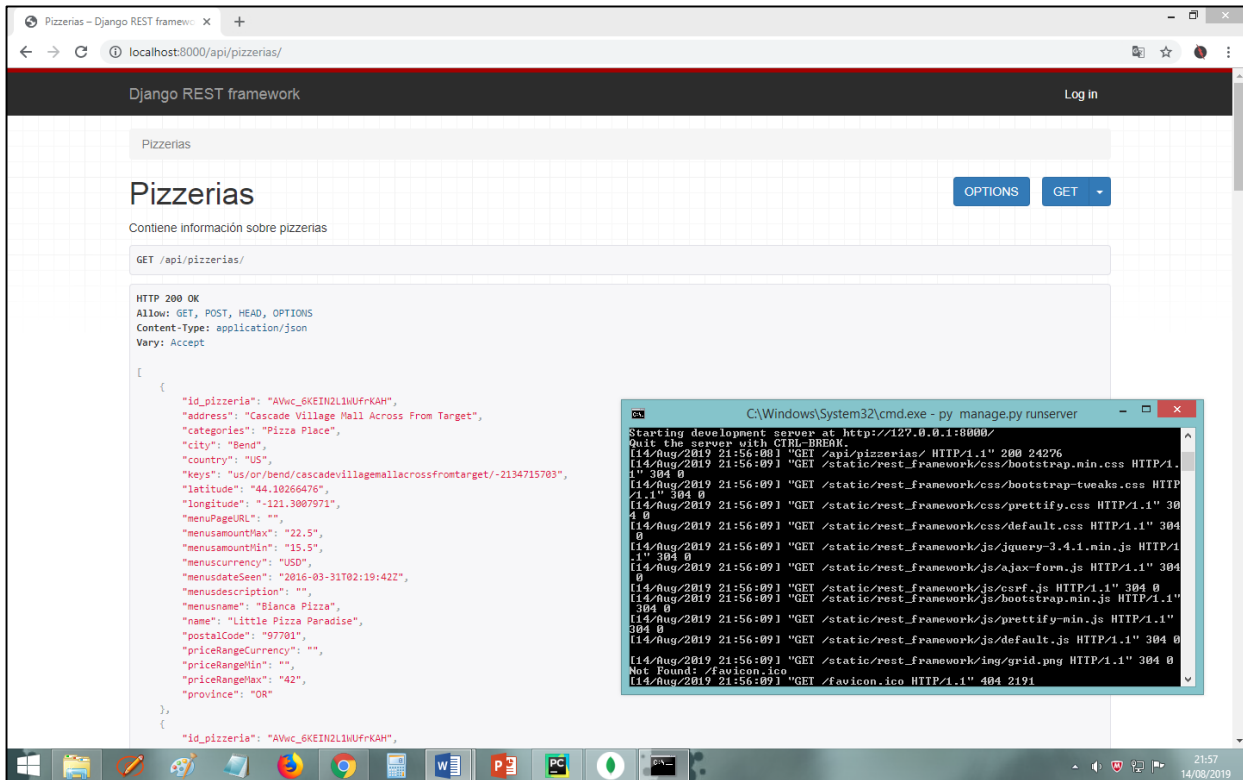
La asignación a PizzeriaDetail se define como "pizzerías/pk" donde pk es la Primary Key de la pizzería que en este caso es un valor numérico a partir de 1, es decir si se desea actualizar o eliminar el objeto con id=1 se debe entrar a: "<http://localhost:8000/api/pizzerias/1/>". Aquí se utilizan las operaciones GET para obtener el elemento, PATCH para modificarlo y DELETE para eliminarlo



#### 4. Sitio web de consulta.

Agregue las capturas de pantalla del sitio web.

GET



Django REST framework

Pizzerias

Contiene información sobre pizzerias

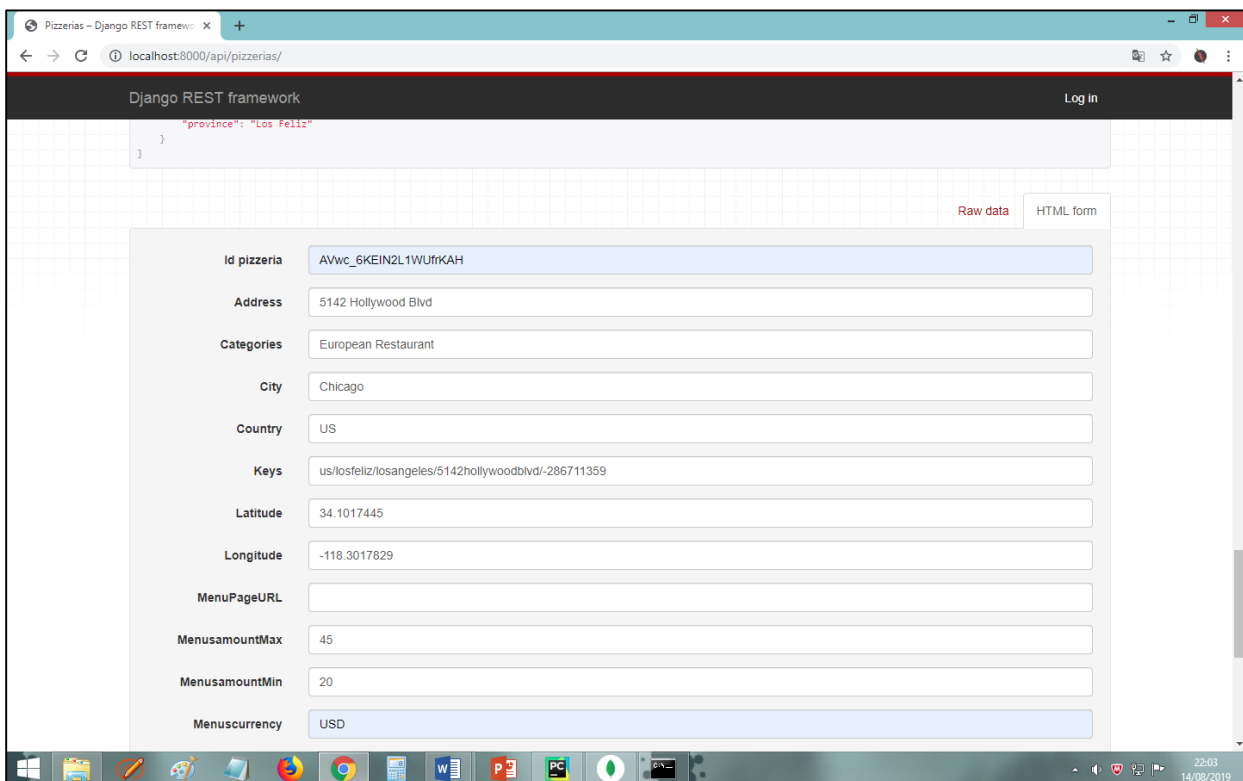
GET /api/pizzerias/

HTTP 200 OK  
Allow: GET, POST, HEAD, OPTIONS  
Content-Type: application/json  
Vary: Accept

```
[
  {
    "id_pizzeria": "AVwc_6KEIN2L1WUfrKAH",
    "address": "Cascade Village Mall Across From Target",
    "categories": "Pizza Place",
    "city": "Bend",
    "country": "US",
    "keys": "us/or/bend/cascadevillagemallacrossfromtarget/-2134715703",
    "latitude": "44.10266476",
    "longitude": "-121.3007971",
    "menuPageURL": "",
    "menumountMax": "22.5",
    "menumountMin": "15.5",
    "menucurrency": "USD",
    "menudateSeen": "2016-03-31T02:19:42Z",
    "menudescription": "",
    "menuname": "Bianca Pizza",
    "postalCode": "97701",
    "priceRangeCurrency": "",
    "priceRangeMin": "",
    "priceRangeMax": "42",
    "province": "OR"
  },
  {
    "id_pizzeria": "AVwc_6KEIN2L1WUfrKAH",
```

C:\Windows\System32\cmd.exe - py manage.py runserver

```
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[14/Aug/2019 21:56:09] "GET /api/pizzerias/ HTTP/1.1" 200 24276
[14/Aug/2019 21:56:09] "GET /static/rest_framework/css/bootstrap.min.css HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/css/bootstrap-tweaks.css HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/css/prettify.css HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/css/default.css HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/js/jquery-3.4.1.min.js HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/js/ajax-form.js HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/js/csrf.js HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/js/bootstrap.min.js HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/js/prettify-min.js HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/js/default.js HTTP/1.1" 304 0
[14/Aug/2019 21:56:09] "GET /static/rest_framework/img/grid.png HTTP/1.1" 304 0
Not found: /favicon.ico
[14/Aug/2019 21:56:09] "GET /favicon.ico HTTP/1.1" 404 2191
```



Django REST framework

Log in

"province": "Los Feliz"

Raw data HTML form

Id pizzeria AVwc\_6KEIN2L1WUfrKAH

Address 5142 Hollywood Blvd

Categories European Restaurant

City Chicago

Country US

Keys us/losfeliz/losangeles/5142hollywoodblvd/-286711359

Latitude 34.1017445

Longitude -118.3017829

MenuPageURL

MenuamountMax 45

MenuamountMin 20

Menucurrency USD



## POST

Pizzerias - Django REST framework

Log in

MenuselectionMax 45

MenuselectionMin 20

Menuselectioncurrency USD

MenuselectiondateSeen 2016-03-31T02:19:42Z

Menuselectiondescription Choose a cool pizza size.

Menuselectionname Bianca Pizza

Name Forever Pizza

PostalCode 97701

PriceRangeCurrency USD

PriceRangeMin 45

PriceRangeMax 86

Province OR

POST

Pizzerias

Contiene información sobre pizzerias

POST /api/pizzerias/

HTTP 201 Created  
Allow: GET, POST, HEAD, OPTIONS  
Content-Type: application/json  
Vary: Accept

```
{
  "id_pizzeria": "AVwc_6KEIN2L1WfrKAH",
  "address": "5142 Hollywood Blvd",
  "categories": "European Restaurant",
  "city": "Chicago",
  "country": "US",
  "keys": "us/losfeliz/losangeles/5142hollywoodblvd/-286711359",
  "latitude": "34.1017445",
  "longitude": "-118.3017829",
  "menuPageURL": "",
  "menuselectionMax": "45",
  "menuselectionMin": "20",
  "menuselectioncurrency": "USD",
  "menuselectiondateSeen": "2016-03-31T02:19:42Z",
  "menuselectiondescription": "Choose a cool pizza size.",
  "menuselectionname": "Bianca Pizza",
  "name": "Forever Pizza",
  "postalCode": "97701",
  "priceRangeCurrency": "USD",
  "priceRangeMin": "45",
  "priceRangeMax": "86",
  "province": "OR"
}
```

OPTIONS GET

C:\Windows\System32\cmd.exe - py manage.py runserver

```
System check identified no issues (0 silenced).
August 14, 2019 - 21:58:53
Django version 2.2.3, using settings 'autonomo3.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[14/Aug/2019 21:58:57] "GET /api/pizzerias/ HTTP/1.1" 200 24853
C:\Users\Usuario\Downloads\DAU\autonomo3\autonomo3\niapp\serializer.py changed.
Reloading.
Matching for file changes with StatReloader
Performing system checks...
System check identified no issues (0 silenced).
August 14, 2019 - 21:59:21
Django version 2.2.3, using settings 'autonomo3.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[14/Aug/2019 22:00:02] "GET /api/pizzerias/ HTTP/1.1" 200 24276
[14/Aug/2019 22:04:41] "POST /api/pizzerias/ HTTP/1.1" 201 15686
```

## DATOS EN JSON

```
localhost8000/api/pizzerias/?format=json
```

```
[{"id_pizzeria": "Awc_6KEINLUMfrKwH", "address": "Cascade Village Mall Across From Target", "categories": "Pizza  
Place", "city": "Bend", "country": "US", "keys": "us/or/bend/cascadevillagemallacrossfrontarget/-2134715703", "latitude": "44.10266476", "longitude": "-121.3007971", "menuPageURL": "", "menumax": "22.5", "me  
nusamount": "15.59", "menusdescription": "2016-03-31T02:19:42Z", "menusname": "Bianca Pizza", "name": "Little Piz  
Paradise", "postalcode": "97701", "pricerangeCurrency": "", "pricerangeIn": "", "pricerangeMax": "42", "pricerangeMin": "0", "province": "OR"}, {"id_pizzeria": "Awvc_6KEINLUMfrKwH", "address": "Cascade Village Mall Across From  
Target", "categories": "Pizze  
Place", "city": "Bend", "country": "US", "keys": "us/or/bend/cascadevillagemallacrossfrontarget/-2134715703", "latitude": "44.10266476", "longitude": "-121.3007971", "menuPageURL": "", "menumax": "18.95",  
nusamount": "18.95", "menusdescription": "2016-03-31T02:19:42Z", "menusname": "Cheese Pizza", "name": "Little Piz  
Paradise", "postalcode": "97701", "pricerangeCurrency": "", "pricerangeIn": "", "pricerangeMax": "50", "pricerangeMin": "0", "province": "OR"}, {"id_pizzeria": "Awvc_6qRByJofQcxkcu", "address": "148 S Barrington  
Ave", "categories": "American Restaurant-Bar-Bakery", "city": "Los  
Angeles", "country": "US", "keys": "us/brentwood/losangeles/148sbarringtonave/-1516414008", "latitude": "34.06456347", "longitude": "-118.4690173", "menuPageURL": "", "menumax": "12", "men  
usamount": "12", "menusdescription": "2015-10-23T03:57:26Z", "menusname": "Pizze- Rharherita", "name": "The  
Brentwood", "postalcode": "90049", "pricerangeCurrency": "USD", "pricerangeIn": "50", "pricerangeMax": "55", "pricerangeMin": "0", "province": "Brentwood"}, {"id_pizzeria": "Awvc_6qRByJofQcxkcu", "address": "148 S Barrington  
Ave", "categories": "American Restaurant-Bar-Bakery", "city": "Los  
Angeles", "country": "US", "keys": "us/brentwood/losangeles/148sbarringtonave/-1516414008", "latitude": "34.06456347", "longitude": "-118.4690173", "menuPageURL": "", "menumax": "13", "men  
usamount": "13", "menusdescription": "2015-10-23T03:57:26Z", "menusname": "Pizze- Rushroom", "name": "The  
Brentwood", "postalcode": "90049", "pricerangeCurrency": "USD", "pricerangeIn": "50", "pricerangeMax": "55", "pricerangeMin": "0", "province": "Brentwood"}, {"id_pizzeria": "Awvc_6qRByJofQcxkcu", "address": "148 S Barrington  
Ave", "categories": "American Restaurant-Bar-Bakery", "city": "Los  
Angeles", "country": "US", "keys": "us/brentwood/losangeles/148sbarringtonave/-1516414008", "latitude": "34.06456347", "longitude": "-118.4690173", "menuPageURL": "", "menumax": "13", "men  
usamount": "13", "menusdescription": "2015-10-23T03:57:26Z", "menusname": "Olives-onions-capers-tomatoes", "name": "The  
Brentwood", "postalcode": "90049", "pricerangeCurrency": "USD", "pricerangeIn": "50", "pricerangeMax": "55", "pricerangeMin": "0", "province": "Brentwood"}, {"id_pizzeria": "Awvc_6qRByJofQcxkcu", "address": "148 S Barrington  
Ave", "categories": "American Restaurant-Bar-Bakery", "city": "Los  
Angeles", "country": "US", "keys": "us/brentwood/losangeles/148sbarringtonave/-1516414008", "latitude": "34.06456347", "longitude": "-118.4690173", "menuPageURL": "", "menumax": "15",  
nusamount": "15", "menusdescription": "2015-10-23T03:57:26Z", "menusname": "Pizze- Salami Piccante", "name": "The  
Brentwood", "postalcode": "90049", "pricerangeCurrency": "USD", "pricerangeIn": "50", "pricerangeMax": "55", "pricerangeMin": "0", "province": "Brentwood"}, {"id_pizzeria": "Awvc_6qRByJofQcxkcu", "address": "148 S Barrington  
Ave", "categories": "American Restaurant-Bar-Bakery", "city": "Los  
Angeles", "country": "US", "keys": "us/brentwood/losangeles/148sbarringtonave/-1516414008", "latitude": "34.06456347", "longitude": "-118.4690173", "menuPageURL": "", "menumax": "15",  
nusamount": "15", "menusdescription": "2015-10-23T03:57:26Z", "menusname": "Pizze- Salami Piccante", "name": "The  
Brentwood", "postalcode": "90049", "pricerangeCurrency": "USD", "pricerangeIn": "50", "pricerangeMax": "55", "pricerangeMin": "0", "province": "Brentwood"}, {"id_pizzeria": "Awvc_6qRByJofQcxkcu", "address": "148 S Barrington  
Ave", "categories": "American Restaurant-Bar-Bakery", "city": "Los  
Angeles", "country": "US", "keys": "us/losfeliz/losangeles/5142hollywoodblvd/-28671359", "latitude": "34.06456347", "longitude": "-118.4690173", "menuPageURL": "", "menumax": "15",  
nusamount": "15", "menusdescription": "2016-06-14T02:33:07Z", "menusname": "Choose a pizza", "name": "The  
Hollywood", "postalcode": "90027", "pricerangeCurrency": "USD", "pricerangeIn": "50", "pricerangeMax": "55", "pricerangeMin": "0", "province": "Brentwood"}, {"id_pizzeria": "Awvc_6qRByJofQcxkcu", "address": "148 S Barrington  
Ave", "categories": "European  
Restaurant", "city": "Chicago", "country": "US", "keys": "us/losfeliz/losangeles/5142hollywoodblvd/-28671359", "latitude": "34.06456347", "longitude": "-118.4690173", "menuPageURL": "", "menumax": "15",  
nusamount": "15", "menusdescription": "2016-03-31T02:19:42Z", "menusname": "Choose a pizza", "name": "The  
Hollywood", "postalcode": "90027", "pricerangeCurrency": "USD", "pricerangeIn": "50", "pricerangeMax": "55", "pricerangeMin": "0", "province": "Brentwood"}, {"id_pizzeria": "Awvc_6qRByJofQcxkcu", "address": "148 S Barrington  
Ave", "categories": "European  
Restaurant", "city": "Chicago", "country": "US", "keys": "us/losfeliz/losangeles/5142hollywoodblvd/-28671359", "latitude": "34.06456347", "longitude": "-118.4690173", "menuPageURL": "", "menumax": "15",  
nusamount": "15", "menusdescription": "2016-03-31T02:19:42Z", "menusname": "Choose a pizza", "name": "The  
Hollywood", "postalcode": "90027", "pricerangeCurrency": "USD", "pricerangeIn": "50", "pricerangeMax": "55", "pricerangeMin": "0", "province": "Brentwood"}]
```

```
C:\Windows\System32\cmd.exe - py manage.py runserver
```

```
System check identified no issues (0 silenced).
August 14, 2019 21:58:53
Django version 2.2.3, using settings 'autonomo3.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[14/Aug/2019 21:58:53] "GET /api/pizzerias/ HTTP/1.1" 200 24953
C:\Users\Usuario\Downloads\DW\autonomo3\autonomo3\snappyserializer.py changed.
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
August 14, 2019 21:59:21
Django version 2.2.3, using settings 'autonomo3.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[14/Aug/2019 22:00:02] "GET /api/pizzerias/ HTTP/1.1" 200 24276
[14/Aug/2019 22:04:41] "POST /api/pizzerias/ HTTP/1.1" 201 15686
[14/Aug/2019 22:05:45] "GET /api/pizzerias/ HTTP/1.1" 200 25491
[14/Aug/2019 22:08:25] "GET /api/pizzerias/format-json HTTP/1.1" 200 5297
```

## GET ELEMENTO CON ID=5

localhost:8000/api/pizzerias/5/

Django REST framework

Log in

Pizzerias / Pizzeria Detail

# Pizzeria Detail

DELETE
OPTIONS
GET

GET /api/pizzerias/5/

```

HTTP 200 OK
Allow: GET, PUT, PATCH, DELETE, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

{
  "id_pizzeria": "AVwc_6qRByJofoQCkxcxa",
  "address": "148 S Barrington Ave",
  "categories": "\u00c0merican Restaurant-Bar-Bakery\u00c0",
  "city": "Los Angeles",
  "country": "US",
  "keys": "us/brentwood/losangeles/148sbarringtonave/-1516414008",
  "latitude": "34.06456347",
  "longitude": "-118.4690173",
  "menuPageURL": "",
  "menuamountMax": "13",
  "menuamountMin": "13",
  "menucurrency": "USD",
  "menustatsSent": "2015-10-23T03:57:26Z",
  "menudescription": "\u00c0\u00c0lives: onions- capers- tomatoes\u00c0",
  "menuname": "\u00c0Pizze- Puttanesca\u00c0",
  "name": "The Brentwood",
  "postalCode": "90049",
  "priceRangeCurrency": "USD",
  "priceRangeMin": "50",
  "priceRangeMax": "55",
  "province": "Brentwood"
}

```

C:\Windows\System32\cmd.exe - py manage.py runserver

```

System check identified no issues (0 silenced).
August 14, 2019 - 21:58:53
Django version 2.2.3, using settings 'autonomo3.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[14/Aug/2019 21:58:57] "GET /api/pizzerias/ HTTP/1.1" 200 24053
C:\Users\Usuario\Downloads\BWW\autonomo3\autonomo3\api\serializers.py changed.
Reloading.
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
August 14, 2019 - 21:59:21
Django version 2.2.3, using settings 'autonomo3.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[14/Aug/2019 22:00:02] "GET /api/pizzerias/ HTTP/1.1" 200 24276
[14/Aug/2019 22:04:41] "POST /api/pizzerias/ HTTP/1.1" 201 15686
[14/Aug/2019 22:06:45] "GET /api/pizzerias/ HTTP/1.1" 200 25491
[14/Aug/2019 22:08:25] "GET /api/pizzerias/format-json HTTP/1.1" 200 5297
[14/Aug/2019 22:09:22] "GET /api/pizzerias/5 HTTP/1.1" 200 17420
[14/Aug/2019 22:09:22] "GET /api/pizzerias/5 HTTP/1.1" 200 17420

```

Raw data

HTML form

## UPDATE

Pizzeria Detail - Django REST framework

Log in

MenusamountMax: 13

MenusamountMin: 13

Menucurrency: USD

MenusdateSeen: 2015-10-23T03:57:26Z

Menusdescription: "Olives- onions- capers- tomatoes"

Menusname: "Pizza- Puttenesca"

Name: The Brentwood

PostalCode: 90049

PriceRangeCurrency: USD

PriceRangeMin: 50

PriceRangeMax: 55

Province: Maine

PUT

Pizzeria Detail

DELETE OPTIONS GET

PUT /api/pizzerias/5/

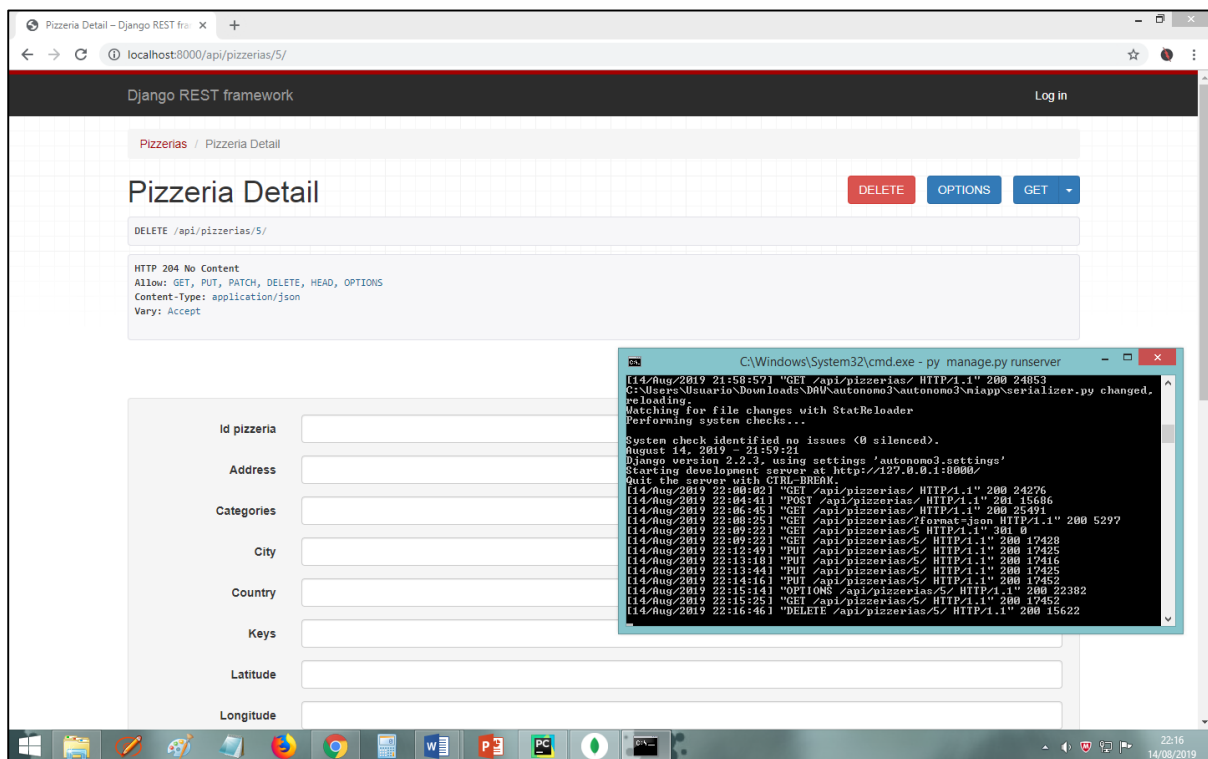
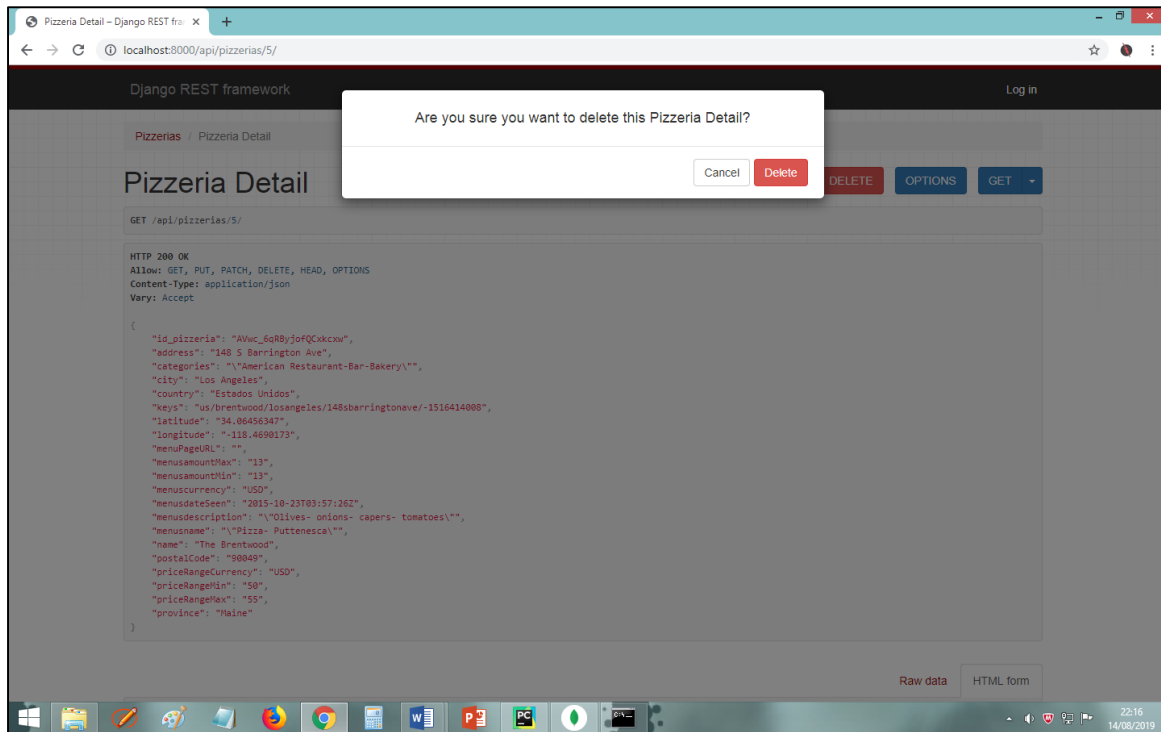
HTTP 200 OK  
Allow: GET, PUT, PATCH, DELETE, HEAD, OPTIONS  
Content-Type: application/json  
Vary: Accept

```
{
  "id_pizzeria": "ANwc_EqRByJofQCkcxw",
  "address": "148 S Barrington Ave",
  "categories": "\\American Restaurant-Bar-Bakery\\",
  "city": "Los Angeles",
  "country": "Estados Unidos",
  "keys": "us/brentwood/losangeles/148sbarringtonave/-1516414088",
  "latitude": "34.06456347",
  "longitude": "-118.4690173",
  "menuPageURL": "",
  "menusamountMax": "13",
  "menusamountMin": "13",
  "menucurrency": "USD",
  "menusdateSeen": "2015-10-23T03:57:26Z",
  "menusdescription": "\\Olives- onions- capers- tomatoes\\",
  "menusname": "\\Pizza- Puttenesca\\",
  "name": "The Brentwood",
  "postalCode": "90049",
  "priceRangeCurrency": "USD",
  "priceRangeMin": "50",
  "priceRangeMax": "55",
  "province": "Maine"
}
```

Raw data HTML form

```
C:\Windows\System32\cmd.exe - py manage.py runserver
Django version 2.2.3, using settings 'autonomo3.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[14/Aug/2019 21:58:57] "GET /api/pizzerias/ HTTP/1.1" 200 24853
C:\Users\Usuario\Downloads\DAW\autonomo3\autonomo3\api\serializers.py changed,
reloading.
Matching for file changes with StatReloader
Performing system checks...
System check identified no issues (0 silenced).
August 14, 2019 - 21:59:21
Django version 2.2.3, using settings 'autonomo3.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[14/Aug/2019 22:00:02] "GET /api/pizzerias/ HTTP/1.1" 200 24276
[14/Aug/2019 22:04:41] "POST /api/pizzerias/ HTTP/1.1" 201 15606
[14/Aug/2019 22:06:45] "GET /api/pizzerias/ HTTP/1.1" 200 25491
[14/Aug/2019 22:08:25] "GET /api/pizzerias/?format=json HTTP/1.1" 200 5297
[14/Aug/2019 22:09:22] "GET /api/pizzerias/5 HTTP/1.1" 201 0
[14/Aug/2019 22:09:22] "GET /api/pizzerias/5/ HTTP/1.1" 200 17428
[14/Aug/2019 22:12:49] "PUT /api/pizzerias/5/ HTTP/1.1" 200 17425
[14/Aug/2019 22:13:18] "PUT /api/pizzerias/5/ HTTP/1.1" 200 17416
[14/Aug/2019 22:13:44] "PUT /api/pizzerias/5/ HTTP/1.1" 200 17425
[14/Aug/2019 22:14:16] "PUT /api/pizzerias/5/ HTTP/1.1" 200 17452
```

## DELETE



## Referencias

Datafiniti. (9 de Agosto de 2019). *Kaggle*. Obtenido de Kaggle: <https://www.kaggle.com/datafiniti/pizza-restaurants-and-the-pizza-they-sell>