Django insert data

Prerequisites[¶](https://learnbatta.com/course/django/insert-data/#prerequisites)

* [Django Models](https://learnbatta.com/course/django/models/)

Django shell[¶](https://learnbatta.com/course/django/insert-data/#django-shell)

* Run the command python manage.py shell open the django shell.
* Write django ORM queries to insert data into the database table.

Django Model - Contact[¶](https://learnbatta.com/course/django/insert-data/#django-model-contact)

* We will be using model Contact from [Django Models](https://learnbatta.com/course/django/models/).

my\_app/models.py

from django.db import models

class Contact(models.Model):

first\_name = models.CharField(max\_length=30)

last\_name = models.CharField(max\_length=30)

email = models.EmailField(max\_length=255)

phone = models.CharField(max\_length=10, null=True)

class Meta:

db\_table = "contact"

insert data using - create()[¶](https://learnbatta.com/course/django/insert-data/#insert-data-using-create)

* Open django shell and import the Contact model`
* write the below query to insert the data

from my\_app.models import Contact

john = Contact.objects.create(

first\_name="John",

last\_name="D",

email="john@example.com"

)

print(john)

# output: <Contact: Contact object (1)>

print(john.id)

# output: 1

* create() method make executes a insert query and insert the data into the database.

insert data using - save()[¶](https://learnbatta.com/course/django/insert-data/#insert-data-using-save)

* To use the save() method we need to create the object instance first.

from my\_app.models import Contact

krish = Contact(

first\_name="Krish",

last\_name="C",

email="krish@example.com"

)

print(krish)

# output: <Contact: Contact object (None)>

print(krish.id)

# output: None

# call .save() to insert it into the database.

krish.save()

print(krish)

# output: <Contact: Contact object (2)>

print(krish.id)

# output: 2

* Data inserted only if we call save() on the object otherwise it won't be inserted into the database.

insert data using - get\_or\_create()[¶](https://learnbatta.com/course/django/insert-data/#insert-data-using-get_or_create)

* get\_or\_create() is used to retrieve the record if exists otherwise it inserts the record into the database.
* It makes two database queries to if object does not exists in the database.

from my\_app.models import Contact

irish, created = Contact.objects.get\_or\_create(

first\_name="Irish",

last\_name="W",

email="irish@example.com"

)

print(created)

# output: True

print(irish)

# output: Contact object (3)

* Above code, executes two queries SELECT and INSERT because the object does not exists in the database.
* Let's try the same code again.

from my\_app.models import Contact

irish, created = Contact.objects.get\_or\_create(

first\_name="Irish",

last\_name="W",

email="irish@example.com"

)

print(created)

# output: False

print(irish)

# output: Contact object (3)

* Above code only executes SELECT query. Because the object already exists

bulk insert using - bulk\_create()[¶](https://learnbatta.com/course/django/insert-data/#bulk-insert-using-bulk_create)

* In some cases, we may need to insert the data in bulk.
* In such cases, most of the people use create() method inside the loop. It will result in multiple database queries which takes more execution time.
* The best way to do it is to use bulk\_create()
* Let's see how we can do that in the below code.

from my\_app.models import Contact

contacts = [

Contact(

first\_name="Berry",

last\_name="Allen",

email="berry@example.com"

),

Contact(

first\_name="Harrison",

last\_name="Wells",

email="harrison@example.com"

),

Contact(

first\_name="Oliver",

last\_name="Queen",

email="oliver@example.com"

),

]

# use bulk\_create() method to do bulk insert

results = Contact.object.bulk\_create(contacts)

print(results)

# output:

# [<Contact: Contact object (4)>,

# <Contact: Contact object (5)>,

# <Contact: Contact object (6)>]

References[¶](https://learnbatta.com/course/django/insert-data/#references)

* <https://docs.djangoproject.com/en/dev/topics/db/queries/>