

## # Task 1

### **What is the main purpose behind using the virtual environment?**

If you are working on different projects, you may face the problem with projects that depend on different versions of libraries.

To prevent such clutter, developers often create a virtual environment for a project to keep the development environment and system environment clean.

### **How to create a virtual environment?**

We can use Virtualenv .

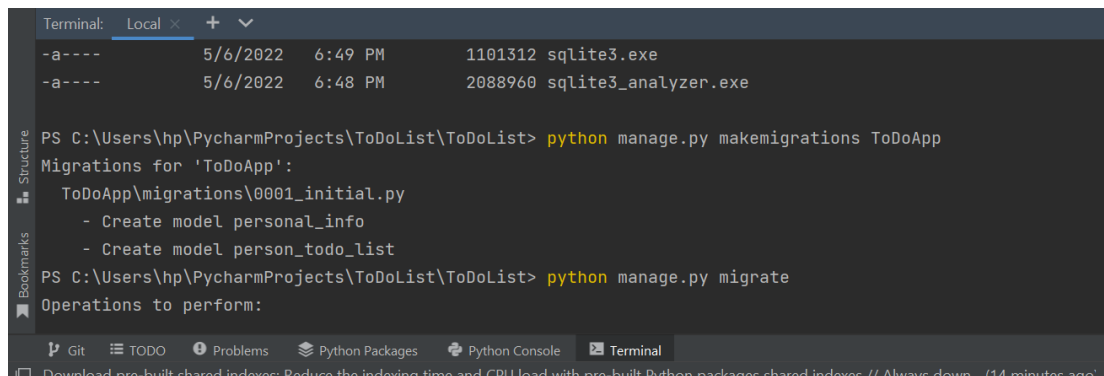
Virtualenv can create several different virtual environments that do not overlap each other in the system.

Creation of virtual environments is done by executing the command venv:

```
python -m venv .venv
```

## # Task 2:

In terminal:



```
Terminal: Local x + v
-a---- 5/6/2022 6:49 PM 1101312 sqlite3.exe
-a---- 5/6/2022 6:48 PM 2088960 sqlite3_analyzer.exe

PS C:\Users\hp\PycharmProjects\ToDoList\ToDoList> python manage.py makemigrations ToDoApp
Migrations for 'ToDoApp':
  ToDoApp\migrations\0001_initial.py
    - Create model personal_info
    - Create model person_todo_list
PS C:\Users\hp\PycharmProjects\ToDoList\ToDoList> python manage.py migrate
Operations to perform:
```

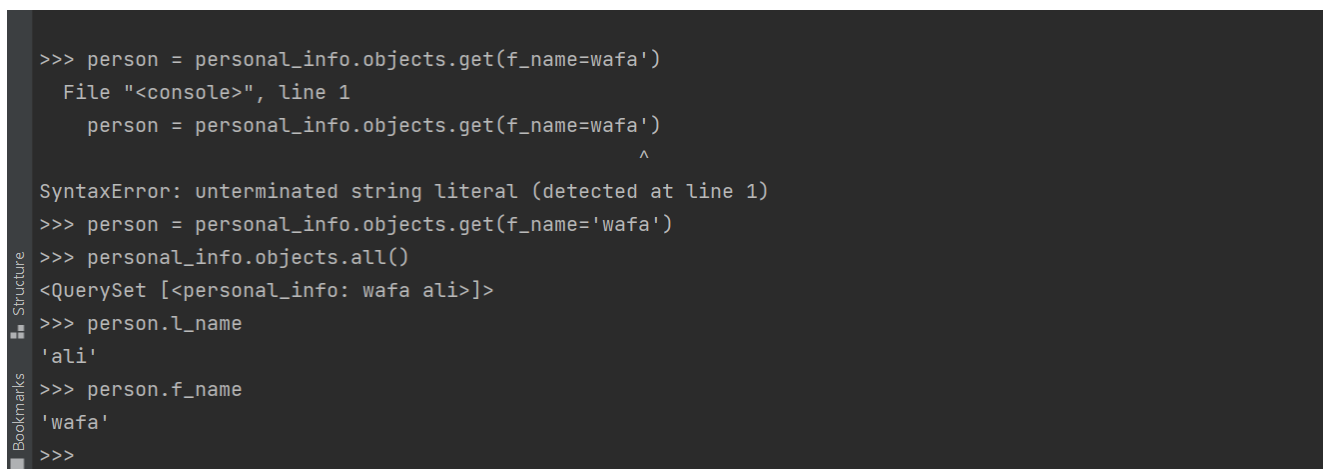
```
from ToDoApp.models import personal_info

person = personal_info(f_name='wafa', l_name='ali')

person.save()

person = personal_info.objects.get(f_name='wafa')

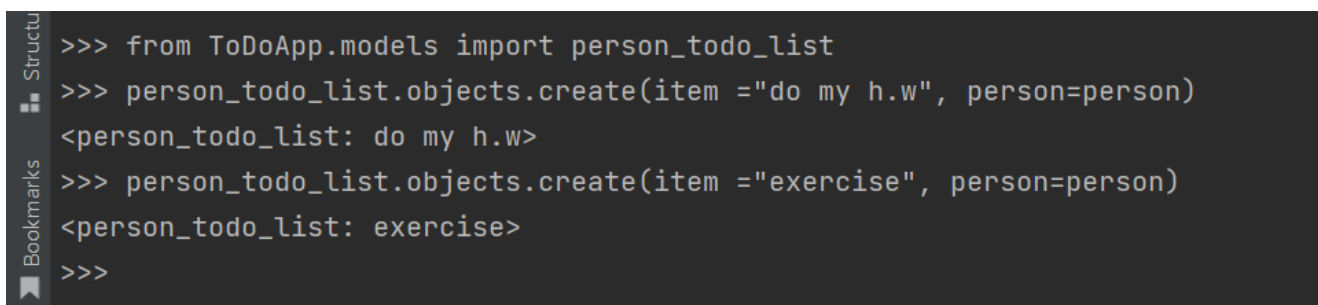
personal_info.objects.all()
```



```
>>> person = personal_info.objects.get(f_name=wafa')
File "<console>", line 1
    person = personal_info.objects.get(f_name=wafa')
                                         ^
SyntaxError: unterminated string literal (detected at line 1)
>>> person = personal_info.objects.get(f_name='wafa')
>>> personal_info.objects.all()
<QuerySet [<personal_info: wafa ali>]>
>>> person.l_name
'ali'
>>> person.f_name
'wafa'
>>>
```

```
from ToDoApp.models import person_todo_list

person_todo_list.objects.create(item="do my h.w", person=person)
```



```
>>> from ToDoApp.models import person_todo_list
>>> person_todo_list.objects.create(item="do my h.w", person=person)
<person_todo_list: do my h.w>
>>> person_todo_list.objects.create(item="exercise", person=person)
<person_todo_list: exercise>
>>>
```

```
person_todo_list.objects.filter(f_name='wafa')
```

```
Terminal: Local x + v
>>> person_todo_list.objects.filter(person_id=1)
<QuerySet [<person_todo_list: do my h.w>, <person_todo_list: exercise>]>
>>>
```

personal\_info table

Table: ToDoApp_personal_info			
	id	f_name	l_name
	Filter	Filter	Filter
1	1	wafa	ali

person\_todo\_list table

Table: ToDoApp_person_todo_list			
	id	item	person_id
	Filter	Filter	Filter
1	1	do my h.w	1
2	2	exercise	1

models.py

```
views.py x models.py x urls.py x
2
3
4 # Create your models here.
5
6 class personal_info(models.Model):
7     f_name = models.CharField(max_length=50, help_text="Your first name .")
8     l_name = models.CharField(max_length=50, help_text="Your last name")
9
10     def __str__(self):
11         return self.f_name + ' ' + self.l_name
12
13
14 class person_todo_list(models.Model):
15     item = models.CharField(max_length=100, help_text='add your to do list item')
16     person = models.ForeignKey(personal_info, on_delete=models.CASCADE)
17
18     def __str__(self):
19         return self.item
20
```