

Отчет по лабораторной работе №6 по курсу
"Разработка REST API с использованием Django REST
Framework."

Выполнил:

Студент группы

ИУ5-55Б

Бахман А.А.

Задание:

С использованием Django REST Framework разработайте REST API для одной модели (одной таблицы базы данных).

Текст программы:

urls.py

```
from django.contrib import admin
from app import views as app_views
from django.urls import include, path
from rest_framework import routers

router = routers.DefaultRouter()
router.register(r'app', app_views.AppViewSet)

# Wire up our API using automatic URL routing.
# Additionally, we include login URLs for the browsable API.
urlpatterns = [
    path('', include(router.urls)),
    path('api-auth/', include('rest_framework.urls',
                             namespace='rest_framework')),

    path('admin/', admin.site.urls),
]
```

models.py

```
from django.db import models

class People(models.Model):
    name = models.CharField(max_length=50, verbose_name="Имя")
    age = models.DecimalField(max_digits=8, decimal_places=2,
    verbose_name="Возраст")
    sex = models.BooleanField(verbose_name="Пол")#true man, false woman
    date_modified = models.DateTimeField(auto_now=True, verbose_name="Когда
последний раз обновлялось значение акции?")
```

serializers.py

```
from app.models import People
from rest_framework import serializers

class PeopleSerializer(serializers.ModelSerializer):
    class Meta:
        # Модель, которую мы сериализуем
        model = People
        # Поля, которые мы сериализуем
        fields = ["pk", "name", "age", "sex", "date_modified"]
```

views.py

```
from rest_framework import viewsets
from app.serializers import PeopleSerializer
from app.models import People
```

```
class AppViewSet(viewsets.ModelViewSet):
    """
    API endpoint, который позволяет просматривать и редактировать акции компаний
    """
    # queryset всех пользователей для фильтрации по дате последнего изменения
    queryset = People.objects.all().order_by('date_modified')
    serializer_class = PeopleSerializer # Сериализатор для модели
```

Результат работы:

← → ↻ 🏠 ⓘ localhost:8000/app/

🌐 Сервисы 🌐 Google 🌐 Яндекс 🌐 YouTube 🌐 GISMETEO: погода... 🌐 Википедия — с

Django REST framework

Api Root / App List

App List

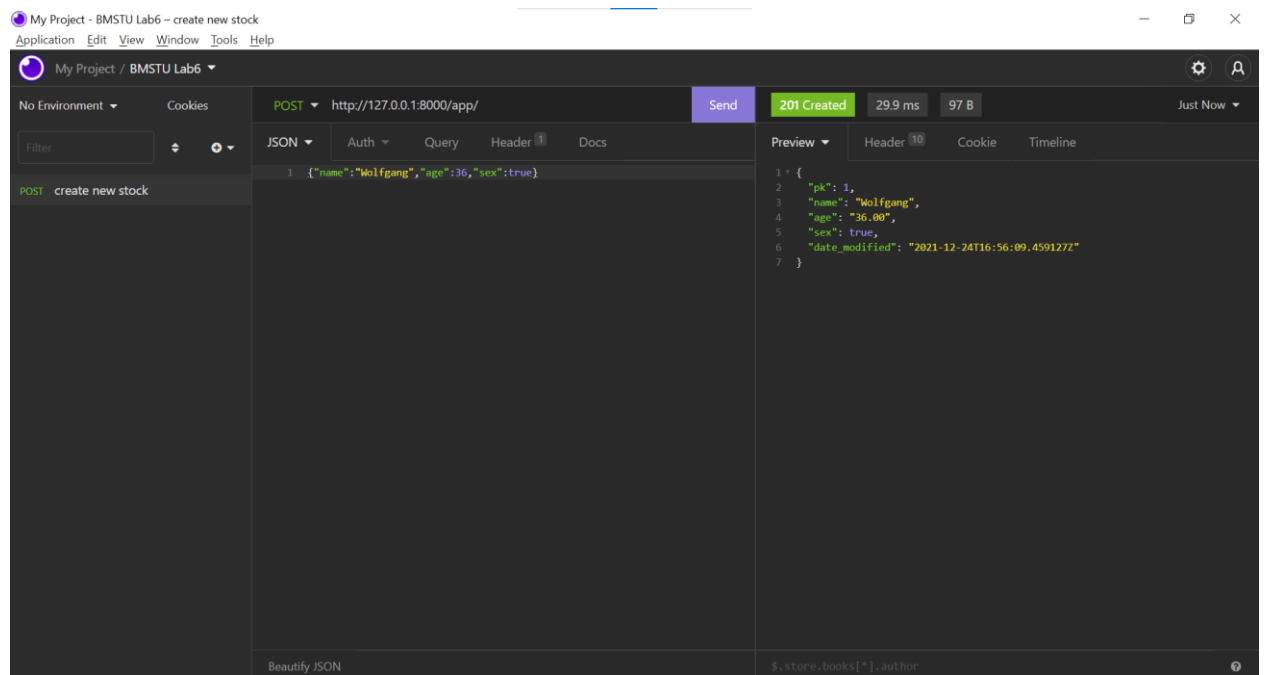
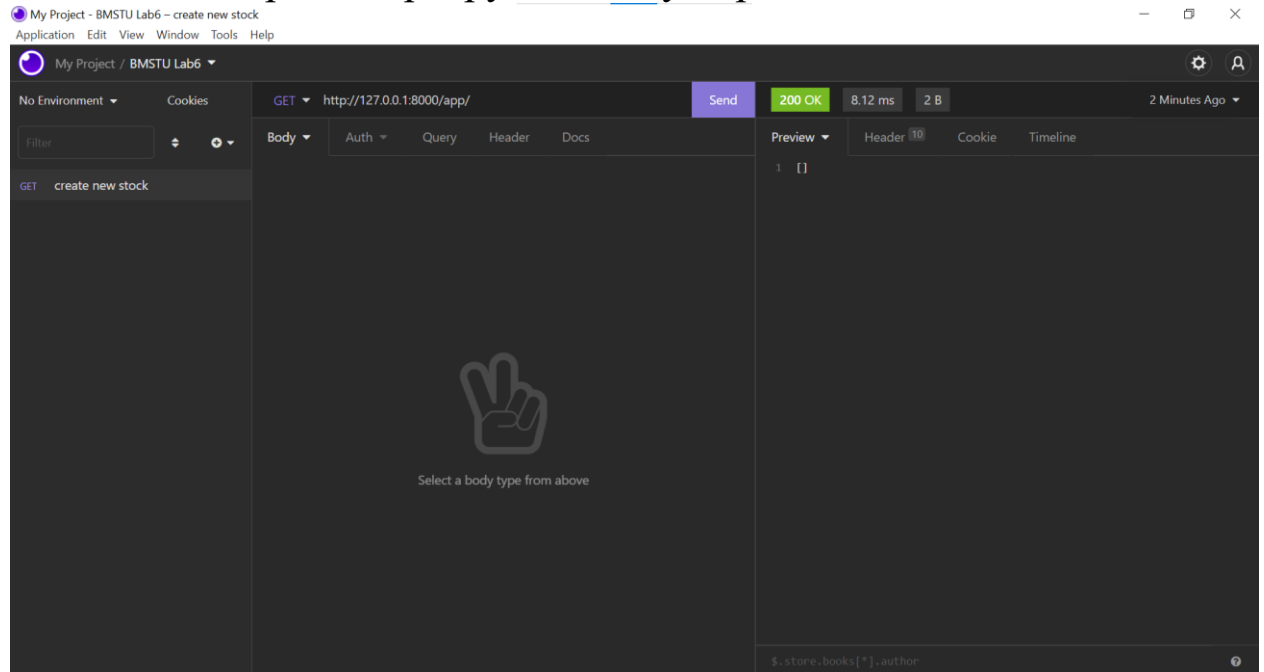
API endpoint, который позволяет просматривать и редактировать акции компаний

GET /app/

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

```
[
  {
    "pk": 6,
    "name": "Bauman N.E.",
    "age": "35.00",
    "sex": true,
    "date_modified": "2021-12-26T19:31:20.816886Z"
  },
  {
    "pk": 7,
    "name": "EINSTEIN",
    "age": "70.00",
    "sex": true,
    "date_modified": "2021-12-26T19:32:00.451673Z"
  }
]
```

Посылаем запросы серверу используя приложение insomnia:



My Project - BMSTU Lab6 - create new stock

Application Edit View Window Tools Help

My Project / BMSTU Lab6

No Environment Cookies

GET http://127.0.0.1:8000/app/ Send 200 OK 11.6 ms 296 B Just Now

Filter

GET create new stock

JSON Auth Query Header 1 Docs

```
1 { "name": "Shakira", "age": 44, "sex": false }
```

Preview Header 10 Cookie Timeline

```
1 * [
2 * {
3 *   "pk": 1,
4 *   "name": "Wolfgang",
5 *   "age": "36.00",
6 *   "sex": true,
7 *   "date_modified": "2021-12-24T16:56:09.459127Z"
8 * },
9 * {
10 *   "pk": 2,
11 *   "name": "Legolas",
12 *   "age": "1500.00",
13 *   "sex": true,
14 *   "date_modified": "2021-12-24T16:57:57.486152Z"
15 * },
16 * {
17 *   "pk": 3,
18 *   "name": "Shakira",
19 *   "age": "44.00",
20 *   "sex": false,
21 *   "date_modified": "2021-12-24T16:58:29.602182Z"
22 * }
23 ]
```

Beautify JSON

\$.store.books[*].author

My Project - BMSTU Lab6 - create new stock

Application Edit View Window Tools Help

My Project / BMSTU Lab6

No Environment Cookies

PUT http://127.0.0.1:8000/app/1/ Send 200 OK 19.2 ms 110 B Just Now

Filter

PUT create new stock

JSON Auth Query Header 1 Docs

```
1 { "name": "WolfgangAmadeusMozart", "age": 35, "sex": true }
```

Preview Header 10 Cookie Timeline

```
1 {
2   "pk": 1,
3   "name": "WolfgangAmadeusMozart",
4   "age": "35.00",
5   "sex": true,
6   "date_modified": "2021-12-24T17:03:14.176538Z"
7 }
```

Beautify JSON

\$.store.books[*].author

My Project - BMSTU Lab6 - create new stock

Application Edit View Window Tools Help

My Project / BMSTU Lab6

No Environment Cookies

GET http://127.0.0.1:8000/app/ Send 200 OK 14.9 ms 309 B Just Now

Filter

GET create new stock

JSON Auth Query Header 1 Docs

```
1 { "name": "WolfgangAmadeusMozart", "age": 35, "sex": true }
```

Preview Header 10 Cookie Timeline

```
1 * [
2 * {
3 *   "pk": 2,
4 *   "name": "Legolas",
5 *   "age": "1500.00",
6 *   "sex": true,
7 *   "date_modified": "2021-12-24T16:57:57.486152Z"
8 * },
9 * {
10 *   "pk": 3,
11 *   "name": "Shakira",
12 *   "age": "44.00",
13 *   "sex": false,
14 *   "date_modified": "2021-12-24T16:58:29.602718Z"
15 * },
16 * {
17 *   "pk": 1,
18 *   "name": "WolfgangAmadeusMozart",
19 *   "age": "35.00",
20 *   "sex": true,
21 *   "date_modified": "2021-12-24T17:03:14.176538Z"
22 * }
23 ]
```

Beautify JSON

\$.store.books[*].author

My Project - BMSTU Lab6 - create new stock

Application Edit View Window Tools Help

My Project / BMSTU Lab6

No Environment Cookies

DELETE http://127.0.0.1:8000/app/3/ Send 204 No Content 11 ms 0 B Just Now

Filter

DEL create new stock

Body Auth Query Header Docs

Preview Header 9 Cookie Timeline

No body returned for response

Select a body type from above

My Project / BMSTU Lab6

No Environment Cookies


GET create new stock

GET http://127.0.0.1:8000/app/ Send 200 OK 11.5 ms 100 B Just Now

Body Auth Query Header Docs

Preview Header 10 Cookie Timeline

1 [2 { 3 "pk": 2, 4 "name": "Legolas", 5 "age": "1500.00", 6 "sex": true, 7 "date_modified": "2021-12-24T16:57:57.486152Z" 8 } 9]



Select a body type from above

\$.store.books[*].author