

Proje Özeti:

Proje Adı: Airline Project

Proje Tanımı: Havayolları ve onlara bağlı uçakların eklenebildiği, değiştirilebildiği ve listelenebildiği bir tasarım oluşturma.

Kullanılan Teknolojiler:

- **Django:** Web uygulaması geliştirme için kullanılan framework.
- **Visual Studio Code:** Kodlama ve geliştirme ortamı.
- **JWT (JSON Web Tokens):** Kullanıcı doğrulama ve yetkilendirme için kullanıldı.
- **Postman:** API testleri için kullanıldı.

Proje Fonksiyonları:

- **Kullanıcı Doğrulama ve Yetkilendirme:** JWT Authentication
- **API İşlevi:** Uçakların ve havayollarının eklenebildiği, listelenebildiği, değiştirilebildiği ve silindiği bir uygulama oluşturma.

Postman Sorgulama için URLS:

Obtain Authentication Token: <http://127.0.0.1:8000/api/test-token/>

Create an Airline: <http://127.0.0.1:8000/api/airline/>

Update an Airline: <http://127.0.0.1:8000/api/airline/9/>

Retrieve an Airline: <http://127.0.0.1:8000/api/airline/9/>

List All Airlines: <http://127.0.0.1:8000/api/airline/>

Create an Aircraft: <http://127.0.0.1:8000/api/aircraft/>

Update an Aircraft: <http://127.0.0.1:8000/api/aircraft/9/>

Retrieve an Aircraft: <http://127.0.0.1:8000/api/aircraft/9/>

Delete an Aircraft: <http://127.0.0.1:8000/api/aircraft/delete/>

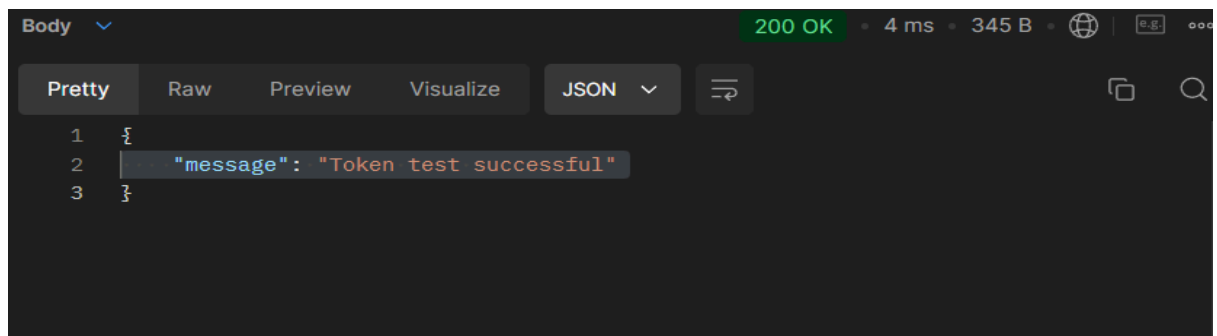
Delete an Airline: <http://127.0.0.1:8000/api/airline/delete/>

Test Aşaması:

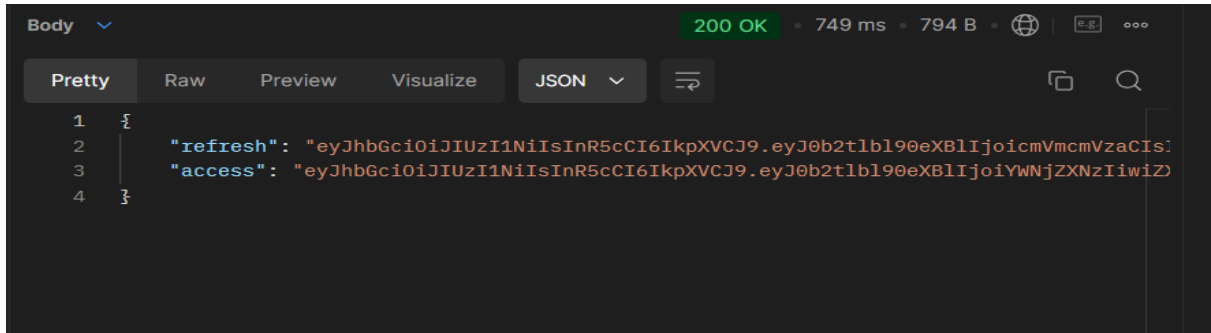
Postman Testleri: Postman'da proje gereksinimlerine uygun testler gerçekleştirildi.

Alınan Hatalar: Access token'a erişimde hata alındı. TokenObtainPairView class'ı kullanarak JWT token'lara erişim hatası düzeltildi.

1) Token Testi Başarılı:



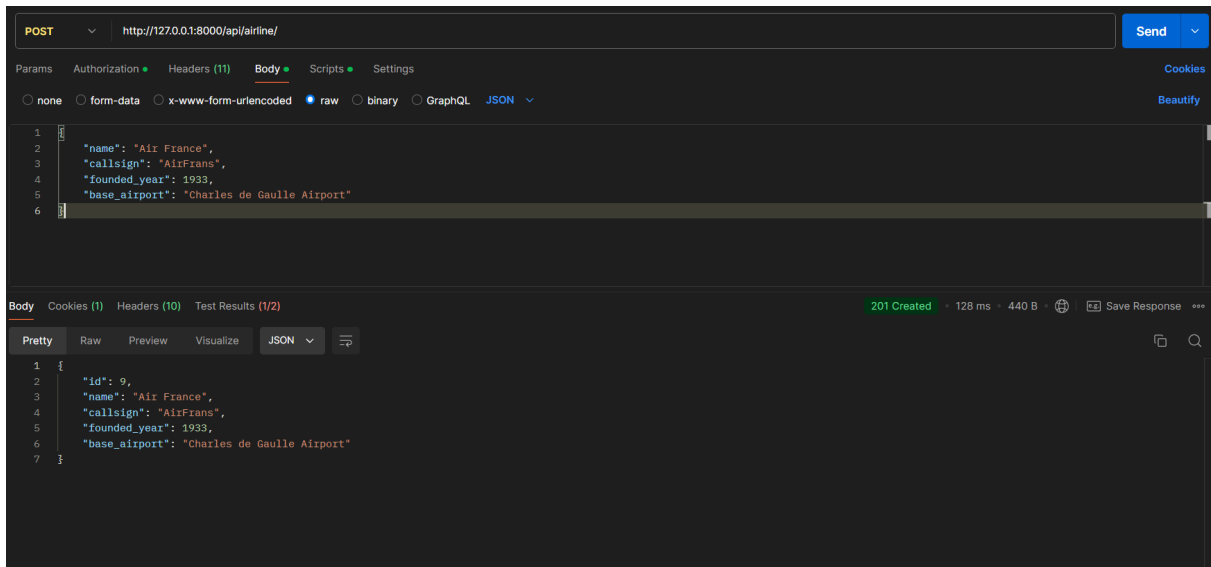
2) Access ve Refresh Token'lar Alındı:



The screenshot shows a REST client interface with a status bar indicating a 200 OK response, 749 ms latency, and 794 B body size. The response body is displayed in JSON format:

```
1 {
2   "refresh": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ0b2t1b190eXB1IjoicmVmcmVzaCIsI
3   "access": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ0b2t1b190eXB1IjoiciYWNjZXRhIiwia
4 }
```

3) Create Airline İşlemi Başarılı:

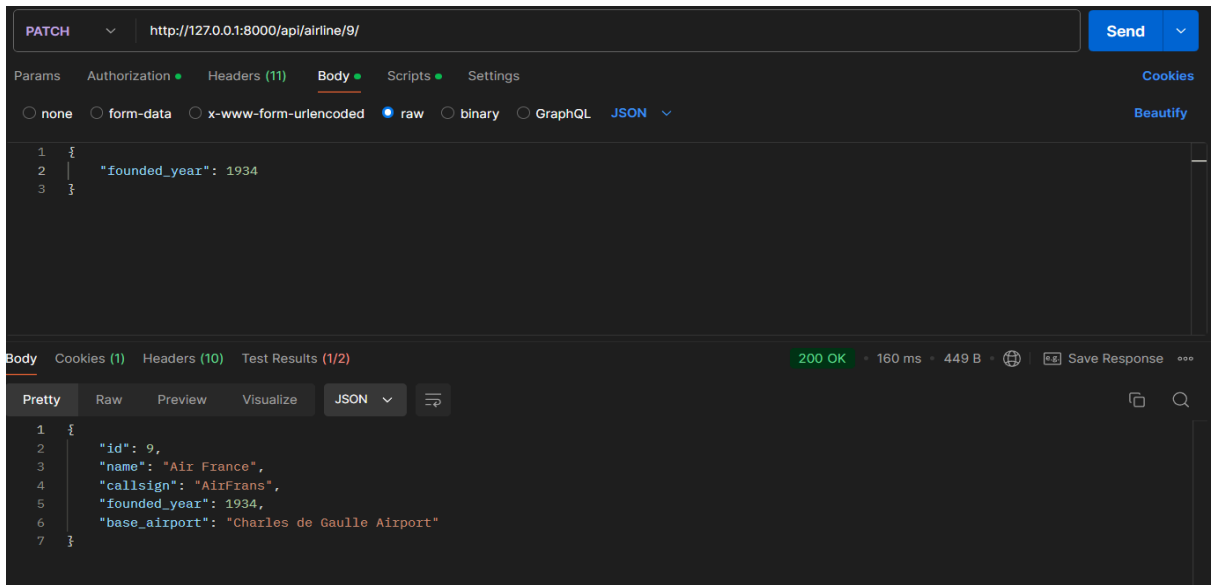


The screenshot shows a REST client interface with a status bar indicating a 201 Created response, 128 ms latency, and 440 B body size. The request body is a JSON object for an airline, and the response body is the created object with an assigned ID:

```
1 {
2   "name": "Air France",
3   "callsign": "AirFrans",
4   "founded_year": 1933,
5   "base_airport": "Charles de Gaulle Airport"
6 }

1 {
2   "id": 9,
3   "name": "Air France",
4   "callsign": "AirFrans",
5   "founded_year": 1933,
6   "base_airport": "Charles de Gaulle Airport"
7 }
```

4) Update an Airline İşlemi Başarılı:



The screenshot shows a REST client interface with a status bar indicating a 200 OK response, 160 ms latency, and 449 B body size. The request body is a JSON object with the updated 'founded_year' value, and the response body is the updated airline object:

```
1 {
2   "founded_year": 1934
3 }

1 {
2   "id": 9,
3   "name": "Air France",
4   "callsign": "AirFrans",
5   "founded_year": 1934,
6   "base_airport": "Charles de Gaulle Airport"
7 }
```

5) Retrieve an Airline İşlemi Başarılı:

The screenshot shows a REST client interface with the following details:

- Method:** GET
- URL:** http://127.0.0.1:8000/api/airline/9/
- Body:** The response is a JSON object:

```
{  "id": 9,  "name": "Air France",  "callsign": "AirFrans",  "founded_year": 1934,  "base_airport": "Charles de Gaulle Airport"}
```
- Status:** 200 OK
- Time:** 153 ms
- Size:** 441 B

6) List All Airlines İşlemi Başarılı:

The screenshot shows a REST client interface with the following details:

- Method:** GET
- URL:** http://127.0.0.1:8000/api/airline/
- Body:** The response is a JSON array of three airline objects:

```
[  {  "id": 2,  "name": "Air China",  "callsign": "Air China",  "founded_year": 1988,  "base_airport": "Beijing Capital International Airport (PEK)"  },  {  "id": 3,  "name": "American Airlines",  "callsign": "American",  "founded_year": 1934,  "base_airport": "Dallas/Fort Worth International Airport (DFW)"  },  {  "id": 4,  "name": "United Airlines",  "callsign": "United",  "founded_year": 1931,  "base_airport": "Chicago O'Hare International Airport (ORD)"  }]
```
- Status:** 200 OK
- Time:** 135 ms
- Size:** 1.03 KB

7) Create an Aircraft İşlem Başarılı:

The screenshot shows a REST client interface with the following details:

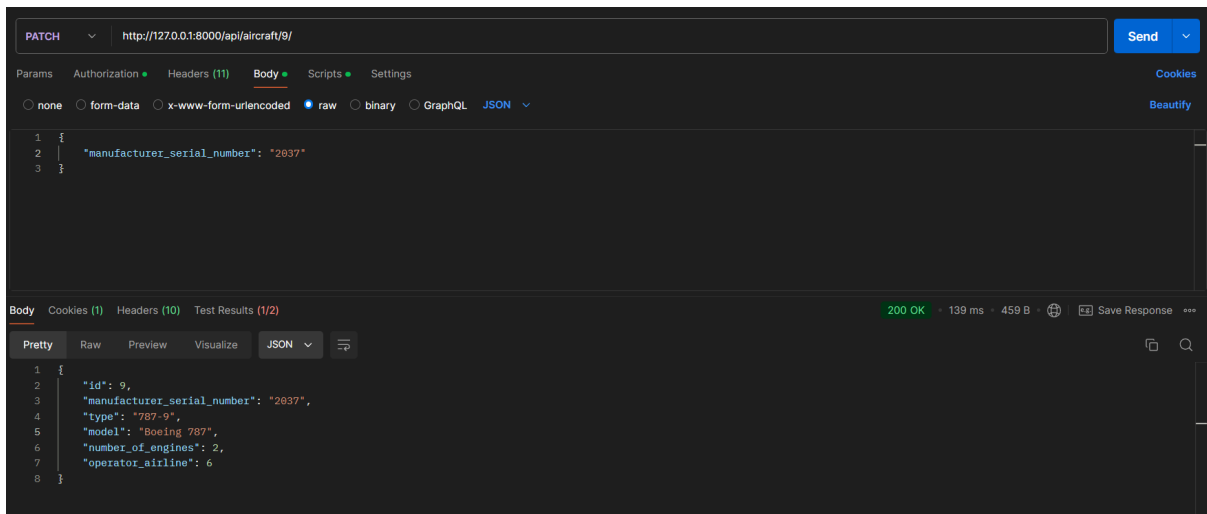
- Method:** POST
- URL:** http://127.0.0.1:8000/api/aircraft/
- Body:** The request body is a JSON object:

```
{  "manufacturer_serial_number": "123456",  "type": "Jet",  "model": "Boeing 737",  "operator_airline": 9,  "number_of_engines": 2}
```
- Status:** 201 Created
- Time:** 158 ms
- Size:** 451 B

The response body (shown below the status bar) is a JSON object:

```
{  "id": 10,  "manufacturer_serial_number": "123456",  "type": "Jet",  "model": "Boeing 737",  "number_of_engines": 2,  "operator_airline": 9}
```

8) Update an Aircraft İşlemi Başarılı:



A screenshot of a Postman interface showing a successful PATCH request. The URL is `http://127.0.0.1:8000/api/aircraft/9/`. The request body is a JSON object: `{ "manufacturer_serial_number": "2837" }`. The response status is `200 OK` with a response time of 139 ms and a body size of 459 B. The response body is a JSON object: `{ "id": 9, "manufacturer_serial_number": "2837", "type": "787-9", "model": "Boeing 787", "number_of_engines": 2, "operator_airline": 6 }`.

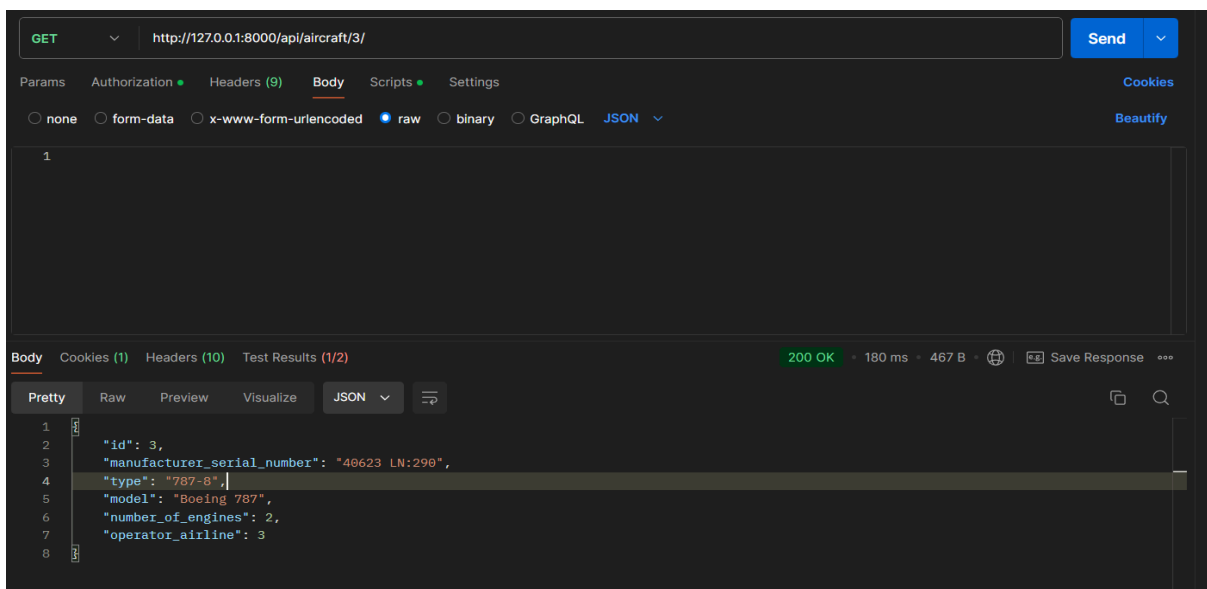
```
PATCH http://127.0.0.1:8000/api/aircraft/9/

{
  "manufacturer_serial_number": "2837"
}
```

```
200 OK 139 ms 459 B

{
  "id": 9,
  "manufacturer_serial_number": "2837",
  "type": "787-9",
  "model": "Boeing 787",
  "number_of_engines": 2,
  "operator_airline": 6
}
```

9) Retrieve an Aircraft İşlemi Başarılı:



A screenshot of a Postman interface showing a successful GET request. The URL is `http://127.0.0.1:8000/api/aircraft/3/`. The response status is `200 OK` with a response time of 180 ms and a body size of 467 B. The response body is a JSON object: `{ "id": 3, "manufacturer_serial_number": "40623 LN:290", "type": "787-8", "model": "Boeing 787", "number_of_engines": 2, "operator_airline": 3 }`.

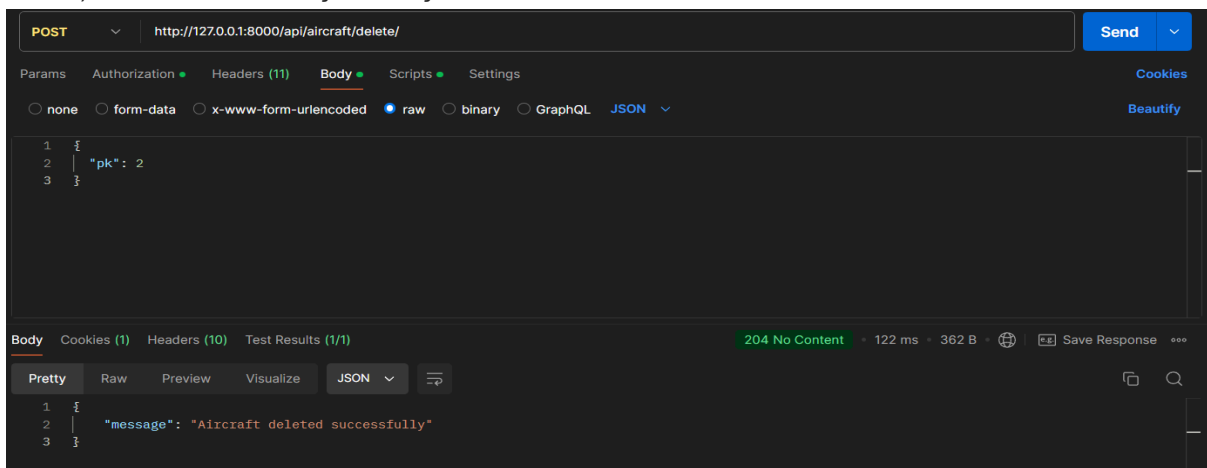
```
GET http://127.0.0.1:8000/api/aircraft/3/

1
```

```
200 OK 180 ms 467 B

{
  "id": 3,
  "manufacturer_serial_number": "40623 LN:290",
  "type": "787-8",
  "model": "Boeing 787",
  "number_of_engines": 2,
  "operator_airline": 3
}
```

10) Delete an Aircraft İşlemi Başarılı:



A screenshot of a Postman interface showing a successful POST request. The URL is `http://127.0.0.1:8000/api/aircraft/delete/`. The request body is a JSON object: `{ "pk": 2 }`. The response status is `204 No Content` with a response time of 122 ms and a body size of 362 B. The response body is a JSON object: `{ "message": "Aircraft deleted successfully" }`.

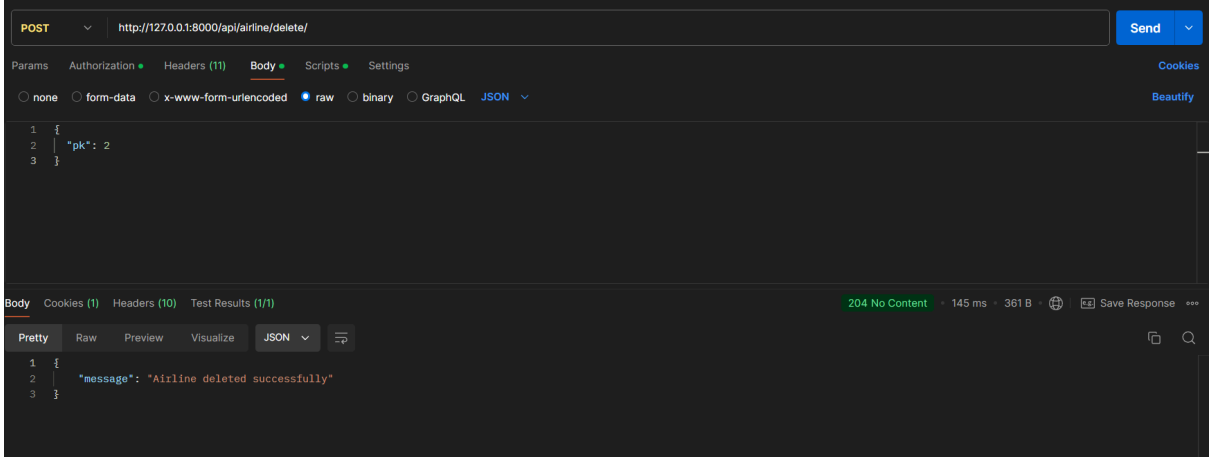
```
POST http://127.0.0.1:8000/api/aircraft/delete/

{
  "pk": 2
}
```

```
204 No Content 122 ms 362 B

{
  "message": "Aircraft deleted successfully"
}
```

11) Delete an Airline İşlemi Başarılı:



Sonuç:

- Projede istenilen uçak ekleme, listeleme ve değiştirme kısımları sorunsuz olarak çalışmaktadır.
- Havayolları kısmı gereksinimlere göre eklenip, listelenip, değiştirilebilmektedir.
- Sisteme erişimi olan kullanıcılar ve kullanıcı grupları Authentication and Authorization başlığı altında görüntülenebilmektedir.
- Panel içerisindeki search kısımları düzgün bir şekilde çalışmaktadır.

Ekler:

- [Proje Github Link](#)
- [Medium Link](#)