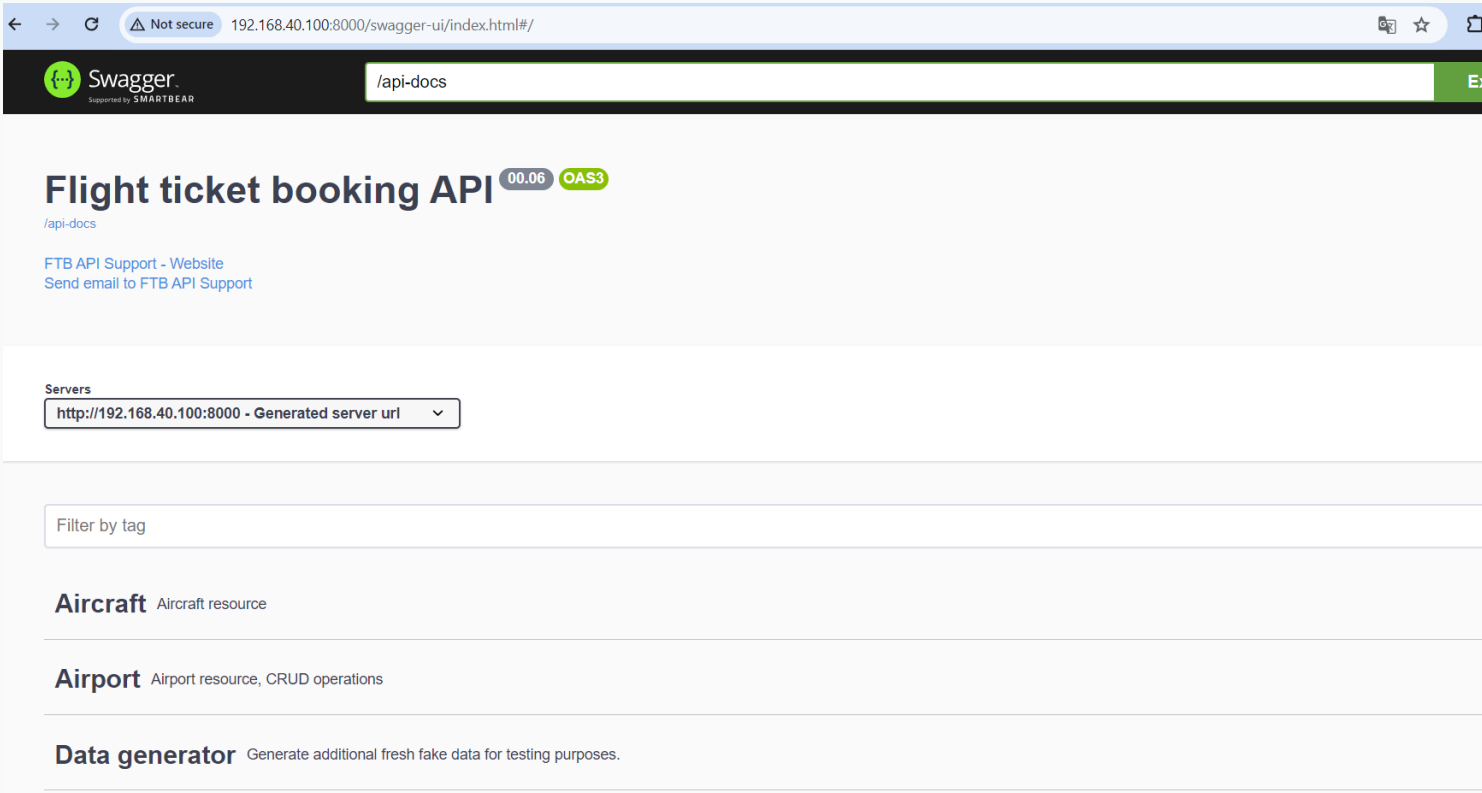
Part 1. Consider the GET request: /api/v0/aircrafts/export

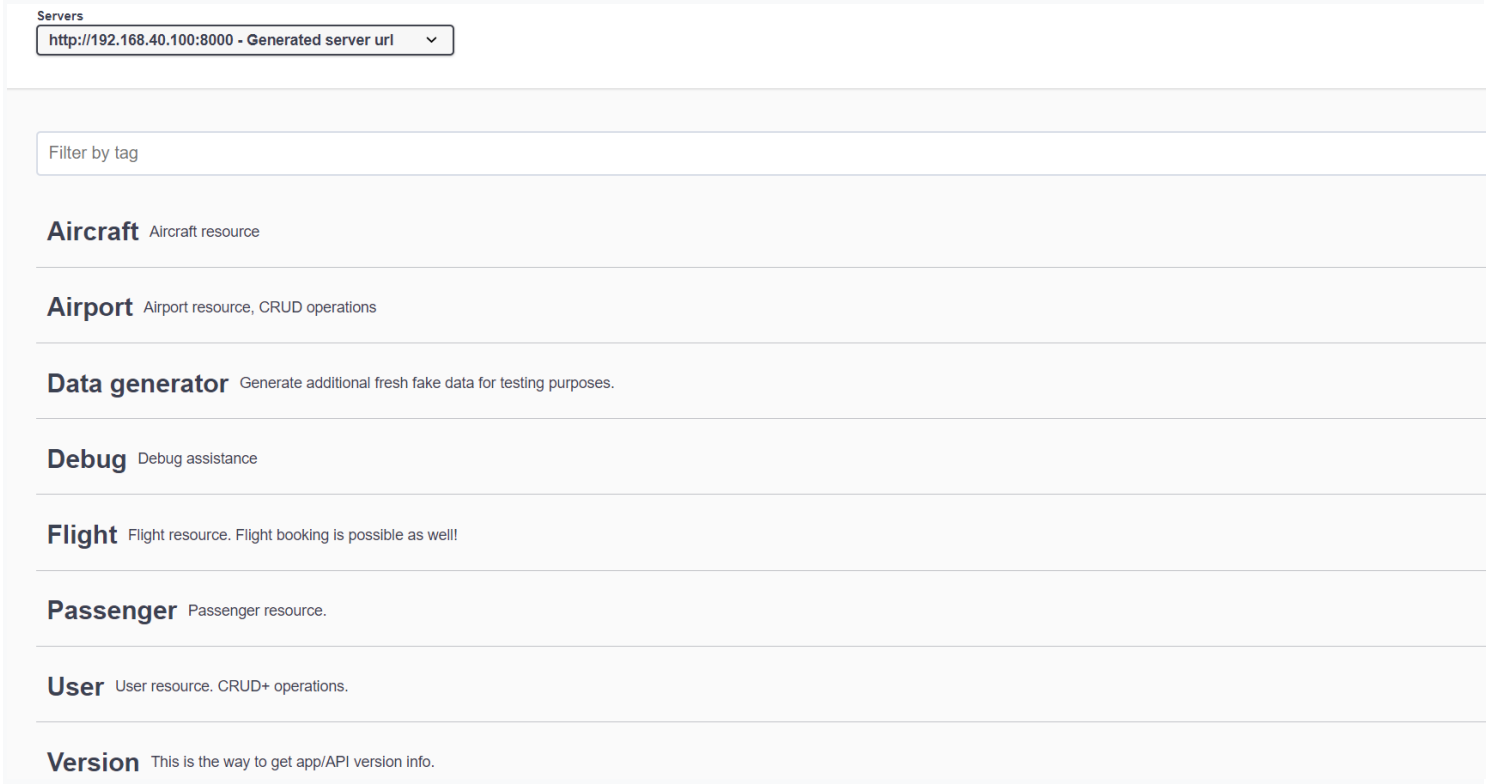
- **Read the documentation in Swagger http://192.168.40.100:8000/swagger-ui/index.html#/Aircraft/exportAllAsCsvFile and describe what this method does.**

Login with user: john and password: john123
http://192.168.40.100:8000/swagger-ui/index.html#/Aircraft/exportAllAsCsvFile and we can see

Documentation about Flight ticket booking API



We can see such different buttons:



When we click on each button we can see all commands that we can do with this api Flight ticket booking API and all responses are written here. We cat delete, get, patch, post, put the information with this API. By clicking on all buttons we can see detailed menu :

Aircraft

Aircraft resource

DELETE

/api/v0/aircrafts/{id}

Attempt to delete an entity by its id.

GET

/api/v0/aircrafts/{id}

Get an entity by its id.

GET

/api/v0/aircrafts

Get all entities available.

GET

/api/v0/aircrafts/paged

Get entities as a paged list.

GET

/api/v0/aircrafts/page/{number}

Get entities available on the page.

GET

/api/v0/aircrafts/model/{modelName}

Attempt to get an aircraft by its model name.

GET

/api/v0/aircrafts/manufacturer/{manufacturerName}

Attempt to get an aircraft by its manufacturer name.

GET

/api/v0/aircrafts/export

Attempt to export all aircraft records to CSV file.

Parameters

Try it out

No parameters

Responses

Code	Description	Links
200	OK Media type */* Controls `Accept` header. **Example Value** Schema {}	*No links*

400

Bad Request

No links

Media type

/

Example Value
Schema


```
{
  "timestamp": "2023-12-12T10:33:58.672Z",
  "status": "string",
  "message": "string",
  "details": [
    "string"
  ]
}
```


PATCH

/api/v0/aircrafts/{id}

Partial update using JSON-Patch operations.

POST

/api/v0/aircrafts

Attempt to create an entity by using its DTO.

POST

/api/v0/aircrafts/import

Attempt to import aircraft data from CSV file.

POST

/api/v0/aircrafts/import/async

Attempt to import aircraft data from CSV file asynchronously.

PUT

/api/v0/aircrafts/{id}

Attempt to update an entity by using its DTO.

For example we can see information form our own app with port 8108 about flights . Let us take flightid 56

http://192.168.40.100:8108/swagger-ui/index.html#/Flight/findById_2

Responses

Curl

```
curl -X 'GET' \
  'http://192.168.40.100:8108/api/v0/flights/56' \
  -H 'accept: */*'
```

Request URL

```
http://192.168.40.100:8108/api/v0/flights/56
```

Server response

Code	Details
200	Response body


```
{
  "flightId": 56,
  "flightNumber": "IA-TEX101",
  "departureAirportCode": "CID",
  "destinationAirportCode": "TEX",
  "departureDate": [
    2023,
    10,
    7
  ],
  "arrivalDate": [
    2023,
    10,
    7
  ],
  "departureTime": "09:00",
  "arrivalTime": "15:00",
  "gate": "12",
  "status": "12",
  "flightCharge": 100,
  "aircraftId": 36,
  "passengerIds": [
    36
  ],
  "id": 56
}
```


Response headers

- **How to run this method from curl? What happened?**

We can see the info about flight with flightid= 56 with command curl

curl -v -X "GET" http://192.168.40.100:8108/api/v0/flights/56 --user "john:john123"

```
C:\Users\irapa>curl -v -X "GET" http://192.168.40.100:8108/api/v0/flights/56 --user "john:john123"
Note: Unnecessary use of -X or --request, GET is already inferred.
*   Trying 192.168.40.100:8108...
* Connected to 192.168.40.100 (192.168.40.100) port 8108
* Server auth using Basic with user 'john'
> GET /api/v0/flights/56 HTTP/1.1
> Host: 192.168.40.100:8108
> Authorization: Basic am9objpqb2huMTIz
> User-Agent: curl/8.4.0
> Accept: */*
>
< HTTP/1.1 200
< Set-Cookie: JSESSIONID=786A8F88CE13C99394B3AF4647624292; Path=/; HttpOnly
< X-Content-Type-Options: nosniff
< X-XSS-Protection: 1; mode=block
< Cache-Control: no-cache, no-store, max-age=0, must-revalidate
< Pragma: no-cache
< Expires: 0
< X-Frame-Options: SAMEORIGIN
< Content-Type: application/json
< Transfer-Encoding: chunked
< Date: Tue, 12 Dec 2023 15:04:56 GMT
<
{"flightId":56,"flightNumber":"IA-TEX101","departureAirportCode":"CID","destinationAirportCode":"TEX","departureDate":[2023,10,7],"arrivalDate":[2
"departureTime":"09:00","arrivalTime":"15:00","gate":"12","status":"12","flightCharge":100.0,"aircraftId":36,"passengerIds":[36],"id":56}* Connect
host 192.168.40.100 left intact
```

- **How to redirect the result to a file instead of a terminal?**

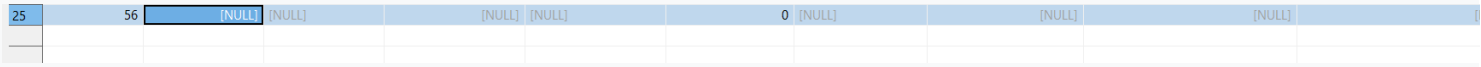
curl -v -X "GET" http://192.168.40.100:8108/api/v0/flights/56 --user "john:john123" | cat > flights

All info about this flight will be in file flights

```
[ipapara@c7-sandbox ~]$ cat flights
{"flightId":56,"flightNumber":"IA-TEX101","departureAirportCode":"CID","destinationAirportCode":"TEX","departureDate":[2023,10,7],"arrivalDate":[2023,10,7],"departureTime":"09:0
ime":"15:00","gate":"12","status":"12","flightCharge":100.0,"aircraftId":36,"passengerIds":[36],"id":56}[ipapara@c7-sandbox ~]$ ^C
[ipapara@c7-sandbox ~]$
```

- **Say, we need to see an empty result to check how the method works in this case. What preparation needs to be done in the system?**

We can do empty info in all fields in this flight with flightid 56 manually in DB



And then use get with Fligt

Flight Flight resource. Flight booking is possible as well!

Curl

```
curl -X 'GET' \
  'http://192.168.40.100:8108/api/v0/flights/56' \
  -H 'accept: */*'
```

Request URL

```
http://192.168.40.100:8108/api/v0/flights/56
```

Server response

Code	Details
200	Response body

```
{
  "flightId": 56,
  "flightNumber": null,
  "departureAirportCode": null,
  "destinationAirportCode": null,
  "departureDate": null,
  "arrivalDate": null,
  "departureTime": null,
  "arrivalTime": null,
  "gate": null,
  "status": null,
  "flightCharge": 0,
  "aircraftId": 0,
  "passengerIds": [],
  "id": 56
}
```

Response headers

```
cache-control: no-cache,no-store,max-age=0,must-revalidate
connection: keep-alive
content-type: application/json
date: Tue,12 Dec 2023 15:20:10 GMT
expires: 0
keep-alive: timeout=60
pragma: no-cache
transfer-encoding: chunked
x-content-type-options: nosniff
x-frame-options: SAMEORIGIN
```

With curl from cmd

```
C:\Users\irapa>curl -v -X "GET" http://192.168.40.100:8108/api/v0/flights/56 --user "john:john123"
Note: Unnecessary use of -X or --request, GET is already inferred.
*   Trying 192.168.40.100:8108...
* Connected to 192.168.40.100 (192.168.40.100) port 8108
* Server auth using Basic with user 'john'
> GET /api/v0/flights/56 HTTP/1.1
> Host: 192.168.40.100:8108
> Authorization: Basic am9objpqb2huMTIz
> User-Agent: curl/8.4.0
> Accept: */*
>
< HTTP/1.1 200
< Set-Cookie: JSESSIONID=81B0DF936708E3282627C11ED736D0B5; Path=/; HttpOnly
< X-Content-Type-Options: nosniff
< X-XSS-Protection: 1; mode=block
< Cache-Control: no-cache, no-store, max-age=0, must-revalidate
< Pragma: no-cache
< Expires: 0
< X-Frame-Options: SAMEORIGIN
< Content-Type: application/json
< Transfer-Encoding: chunked
< Date: Tue, 12 Dec 2023 16:34:38 GMT
<
{"flightId":56,"flightNumber":null,"departureAirportCode":null,"destinationAirportCode":null,"departureDate":null,"arrivalDate":null,"departureTime
rrivalTime":null,"gate":null,"status":null,"flightCharge":0.0,"aircraftId":0,"passengerIds":[],"id":56}* Connection #0 to host 192.168.40.100 left
```

Part 2. Explain the components of URI:

- **https://john.doe@www.example.com:8080/forum/questions/?tag=networking&order=newest#top**

  Https - protocol component specifies which protocol being used to access the resource

  john.doe@www.example.com - host

  8080 - port component, which specifies the port number where the server is listening

  /forum/questions/ - path component specifies the location of the resource on the server

  ?tag=networking&order=newest#top - parameters component contains additional information that the server can use to process the request.

- **telnet://192.0.5.105:23/**

  Telnet - here we use telnet protocol

  192.0.5.105 - it is an IP address

  23 - port

Part 3* (optional for 100 points): Explain each component of the following command:

curl -i -H 'X-USER-IDENTITY-DOMAIN-NAME: OAuthTestTenant125' -H 'Authorization: Basic MzAzYTI0OTItZDY0Zi00ZTA0LWI3OGYtYjQzMzAwNDczMTJiOll5Sk5NSkdFc0ZqUkxWZVZsdVMz' -H 'Content-Type: application/x-www-form-urlencoded;charset=UTF-8' --request POST https://<idm-domain>.identity.<data-center>.oraclecloud.com/oauth/tokens -d 'grant_type=password &username=tenantAdminUser &password=Fusionapps1&scope=http://www.example.com'

i (or --include): Includes the HTTP response headers in the output along with the response body.

H (or --header): Sets a specific HTTP request header. It can be used to pass various parameters, such as setting an authorization token or other custom headers.

'X-USER-IDENTITY-DOMAIN-NAME: OAuthTestTenant125' This header specifies the name of the identity domain

-H 'Authorization: Basic MzAzYTI0OTItZDY0Zi00ZTA0LWI3OGYtYjQzMzAwNDczMTJiOll5Sk5NSkdFc0ZqUkxWZVZsdVMz' - header

This header specifies the authorization credentials.

'Content-Type: application/x-www-form-urlencoded;charset=UTF-8' -header. This header specifies the type of content that is being sent in the request

--request option in curl is used to specify the HTTP method to be used in the request. This option allows you to explicitly set the type of HTTP request you want to perform.

POST - it is our HTTP method

https://<idm-domain>.identity.<data-center>.oraclecloud.com/oauth/tokens - This is the URL that is being used to obtain the access token.

-d 'grant_type=password &username=tenantAdminUser &password=Fusionapps1&scope=http://www.example.com'

This option is used to specify the data that is being sent in the request body. In this case, it is grant_type=password &username=tenantAdminUser&password=Fusionapps1&scope=http://www.example.com.