How To Run/ Consume mobile search API

Document Revision:

Revision #	Date	Author	Description
1.0	June 6, 2021	Sameh Elsayed	How to run/ consume the API

Table of Contents:

1. Pre-requisites.

1. Please refer to the README.md file (attached in the email and in the shared google drive link and github repo as well in doc folder)
    - Section: # **Running instructions -> Pre-requisites**

2. Run the application.

2. Please refer to the README.md file (attached in the email and in the shared google drive link and github repo as well in doc folder)
    - Section: # **Running instructions**

3. Open mobile search Consumer Page

1. I have developed a HTML page + Jquery application to consume the API and display the data in table format (It is there in the shared google drive location and pushed to github as well https://github.com/S-Sayed/mobile-search-api.git)

2. Download/ checkout the code, then you will find HTML page called "**mobile-search-api-consumer.html**", please open it in any browser (I used **chrome**)

3. The below search page will be displayed.

4. Consume the API from HTML + JQuery

- Search using any criteria from the search form, and you will see the total returned no of handsets and table to display the data if any.

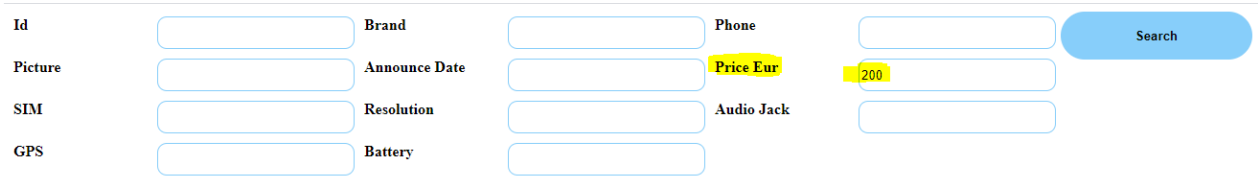
- Lets use different search criteria as follow

- **Without any criteria,** we will get all handsets

Total: 105

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	25846	Apple	Apple iPad Pro 12.9 (2018)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-129-2018.jpg	2018 October	1100	Nano-SIM eSIM	2048 x 2732 pixels	No	Yes with A-GPS	Li-Po 9720 mAh battery (36.71 Wh)
2	22895	Apple	Apple iPad Pro 11	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-11-2018.jpg	2018 October	880	Nano-SIM eSIM	1668 x 2388 pixels	No	Yes with A-GPS	Li-Po 7812 mAh battery (29.45 Wh)
3	28136	Apple	Apple iPhone XS Max	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xs-max-new1.jpg	2018 September	1250	Single SIM	1242 x 2688 pixels	No	Yes with A-GPS	Li-Ion 3174 mAh battery
4	24989	Apple	Apple iPhone XS	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xs-new.jpg	2018 September	1150	Nano-SIM eSIM	1125 x 2436 pixels	No	Yes with A-GPS	Li-Ion 2658 mAh battery (10.13 Wh)
5	28004	Apple	Apple iPhone	https://cdn2.gsmarena.com/vv/bigpic/apple-	2018	950	Nano-SIM	828 x 1792	No	Yes with A-	Li-Ion 2942

- **Using price Eur=200**



Total: 10

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	27999	Apple	Apple iPad mini Wi-Fi	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-mini-final.jpg	2012 October	200	No	768 x 1024 pixels	Yes	No	Li-Po 4490 mAh battery (16.7 Wh)
2	29709	Apple	Apple iPad 2 Wi-Fi	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad2-new.jpg	2011 March	200	No	768 x 1024 pixels	Yes	No	Li-Po 6930 mAh battery (25 Wh)
3	20551	Apple	Apple iPad 2 CDMA	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad2-new.jpg	2011 March	200	Mini-SIM	768 x 1024 pixels	Yes	Yes with A-GPS	Li-Po 6930 mAh battery (25 Wh)
4	25494	Apple	Apple iPhone 4	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-4-ofic-final.jpg	2010 June	200	Micro-SIM	640 x 960 pixels	Yes	Yes with A-GPS	Li-Po 1420 mAh battery
5	27964	Ericsson	Ericsson R380	https://cdn2.gsmarena.com/vv/bigpic/err380b.gif	2000	200	Mini-SIM	Big	No	No	Removable NiMH battery
6	28354	Ericsson	Ericsson	https://cdn2.gsmarena.com/vv/bigpic/er1018sb.gif	1999	200	Mini-SIM	3 x 12 chars	No	No	Removable NiMH 800

- **Using sim=esim**

Id		Brand		Phone		Search
Picture		Announce Date		Price Eur		
SIM	esim	Resolution		Audio Jack		
GPS		Battery				

Total: 18

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	25846	Apple	Apple iPad Pro 12.9 (2018)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-129-2018.jpg	2018 October	1100	Nano-SIM eSIM	2048 x 2732 pixels	No	Yes with A-GPS	Li-Po 9720 mAh battery (36.71 Wh)
2	22895	Apple	Apple iPad Pro 11	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-11-2018.jpg	2018 October	880	Nano-SIM eSIM	1668 x 2388 pixels	No	Yes with A-GPS	Li-Po 7812 mAh battery (29.45 Wh)
3	24989	Apple	Apple iPhone XS	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xs-new.jpg	2018 September	1150	Nano-SIM eSIM	1125 x 2436 pixels	No	Yes with A-GPS	Li-Ion 2658 mAh battery (10.13 Wh)
4	28994	Apple	Apple iPhone XR	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xr-new.jpg	2018 September	850	Nano-SIM eSIM	828 x 1792 pixels	No	Yes with A-GPS	Li-Ion 2942 mAh battery
5	28298	Apple	Apple Watch Series 4	https://cdn2.gsmarena.com/vv/bigpic/apple-watch-series-4-steel.jpg	2018 September	700	eSIM	448 x 368 pixels	No	Yes with A-GPS	Li-Ion battery
			Apple Watch	https://cdn2.gsmarena.com/vv/bigpic/apple-	2018			448 x 368		Yes with A-	

- **Using announce Date=1999 and priceEur=200**

Id		Brand		Phone		Search
Picture		Announce Date	1999	Price Eur	200	
SIM		Resolution		Audio Jack		
GPS		Battery				

Total: 2

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	28354	Ericsson	Ericsson A1018s	https://cdn2.gsmarena.com/vv/bigpic/er1018sb.gif	1999	200	Mini-SIM	3 x 12 chars	No	No	Removable NiMH 800 mAh battery
2	26894	Ericsson	Ericsson I 888	https://cdn2.gsmarena.com/vv/bigpic/eri888b.gif	1999	200	Mini-SIM	3 x 12 chars	No	No	Removable NiMH 800 mAh battery

- **Using id=25846**

Id	25846	Brand		Phone		Search
Picture		Announce Date		Price Eur		
SIM		Resolution		Audio Jack		
GPS		Battery				

Total: 1

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	25846	Apple	Apple iPad Pro 12.9 (2018)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-129-2018.jpg	2018 October	1100	Nano-SIM eSIM	2048 x 2732 pixels	No	Yes with A-GPS	Li-Po 9720 mAh battery (36.71 Wh)

- ## Using brand=Apple

Id		**Brand**	Apple	**Phone**		Search
Picture		**Announce Date**		**Price Eur**		
SIM		**Resolution**		**Audio Jack**		
GPS		**Battery**				

Total: 65

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	25846	Apple	Apple iPad Pro 12.9 (2018)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-129-2018.jpg	2018 October	1100	Nano-SIM eSIM	2048 x 2732 pixels	No	Yes with A-GPS	Li-Po 9720 mAh battery (36.71 Wh)
2	22895	Apple	Apple iPad Pro 11	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-11-2018.jpg	2018 October	880	Nano-SIM eSIM	1668 x 2388 pixels	No	Yes with A-GPS	Li-Po 7812 mAh battery (29.45 Wh)
3	28136	Apple	Apple iPhone XS Max	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xs-max-new1.jpg	2018 September	1250	Single SIM	1242 x 2688 pixels	No	Yes with A-GPS	Li-Ion 3174 mAh battery
4	24989	Apple	Apple iPhone XS	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xs-new.jpg	2018 September	1150	Nano-SIM eSIM	1125 x 2436 pixels	No	Yes with A-GPS	Li-Ion 2658 mAh battery (10.13 Wh)
5	28994	Apple	Apple iPhone XR	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xr-new.jpg	2018 September	850	Nano-SIM eSIM	828 x 1792 pixels	No	Yes with A-GPS	Li-Ion 2942 mAh battery
6	29290	Apple Watch	https://cdn2.gsmarena.com/vv/bigpic/apple-	2018	399		448 x 368		Yes with A-	Li-Ion

- ## Using Phone= XS Max

Id		**Brand**		**Phone**	XS Max	Search
Picture		**Announce Date**		**Price Eur**		
SIM		**Resolution**		**Audio Jack**		
GPS		**Battery**				

Total: 1

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	28136	Apple	Apple iPhone XS Max	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xs-max-new1.jpg	2018 September	1250	Single SIM	1242 x 2688 pixels	No	Yes with A-GPS	Li-Ion 3174 mAh battery

- ## Using resolution=1242 x 2688

Id		**Brand**		**Phone**		Search
Picture		**Announce Date**		**Price Eur**		
SIM		**Resolution**	1242 x 2688	**Audio Jack**		
GPS		**Battery**				

Total: 1

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	28136	Apple	Apple iPhone XS Max	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xs-max-new1.jpg	2018 September	1250	Single SIM	1242 x 2688 pixels	No	Yes with A-GPS	Li-Ion 3174 mAh battery

- ## Using audioJack=yes

Id		**Brand**		**Phone**		Search	
Picture		**Announce Date**		**Price Eur**			
SIM		**Resolution**		**Audio Jack**	yes		
GPS		**Battery**					

Total: 36

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	24748	Apple	Apple iPad 9.7 (2018)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-97-2018.jpg	2018 March	350	Nano-SIM eSIM	1536 x 2048 pixels	Yes	Yes with A-GPS	Li-Ion battery (32.4 Wh)
2	25865	Apple	Apple iPad Pro 12.9 (2017)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-129-2017.jpg	2017 June	900	Nano-SIM eSIM	2732 x 2048 pixels	Yes	Yes with A-GPS	Li-Ion 10891 mAh battery (41 Wh)
3	28335	Apple	Apple iPad Pro 10.5 (2017)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-105-2017.jpg	2017 June	730	Nano-SIM eSIM	1668 x 2224 pixels	Yes	Yes with A-GPS	Li-Ion 8134 mAh battery (30.8 Wh)
4	23770	Apple	Apple iPad 9.7 (2017)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-97-2017.jpg	2017 March	390	Nano-SIM eSIM	1536 x 2048 pixels	Yes	Yes with A-GPS	Li-Ion 8827 mAh battery (32.9 Wh)
5	27459	Apple	Apple iPad Pro 9.7 (2016)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-97.jpg	2016 March	690	Nano-SIM eSIM	1536 x 2048 pixels	Yes	Yes with A-GPS	Li-Ion 7306 mAh battery (27.9 Wh)
			Apple iPhone	https://cdn2.gsmarena.com/vv/bigpic/apple-				640 x 1136		Yes with A-	Li-Po 1624

- ## Using gps=yes

Id		**Brand**		**Phone**		Search	
Picture		**Announce Date**		**Price Eur**			
SIM		**Resolution**		**Audio Jack**			
GPS	yes	**Battery**					

Total: 51

#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	25846	Apple	Apple iPad Pro 12.9 (2018)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-129-2018.jpg	2018 October	1100	Nano-SIM eSIM	2048 x 2732 pixels	No	Yes with A-GPS	Li-Po 9720 mAh battery (36.71 Wh)
2	22895	Apple	Apple iPad Pro 11	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-11-2018.jpg	2018 October	880	Nano-SIM eSIM	1668 x 2388 pixels	No	Yes with A-GPS	Li-Po 7812 mAh battery (29.45 Wh)
3	28136	Apple	Apple iPhone XS Max	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xs-max-new1.jpg	2018 September	1250	Single SIM	1242 x 2688 pixels	No	Yes with A-GPS	Li-Ion 3174 mAh battery
4	24989	Apple	Apple iPhone XS	https://cdn2.gsmarena.com/vv/bigpic/apple-iphone-xs-new.jpg	2018 September	1150	Nano-SIM eSIM	1125 x 2436 pixels	No	Yes with A-GPS	Li-Ion 2658 mAh battery (10.13 Wh)

- ## Using battery= 9720

Id		**Brand**		**Phone**		Search	
Picture		**Announce Date**		**Price Eur**			
SIM		**Resolution**		**Audio Jack**			
GPS		**Battery**	9720				

Total: 1

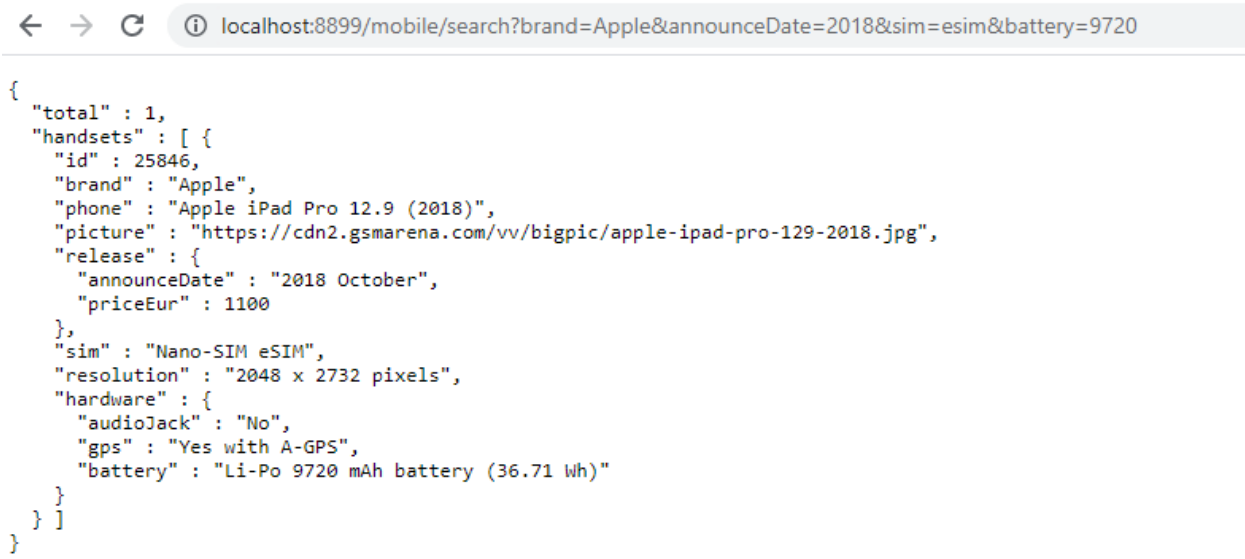
#	Id	Brand	Phone	Picture	Announce Date	Price Eur	SIM	Resolution	Audio Jack	GPS	Battery
1	25846	Apple	Apple iPad Pro 12.9 (2018)	https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-129-2018.jpg	2018 October	1100	Nano-SIM eSIM	2048 x 2732 pixels	No	Yes with A-GPS	Li-Po 9720 mAh battery (36.71 Wh)

4. Consume the API form browser.

- You can access the API by hitting the URL direct form the browser, but please make sure the names of query parameters are as below (they are **case insensitive** for example **brand** and **Brand** are both ok)
  - id
  - brand
  - phone
  - picture
  - announceAate
  - priceEur
  - sim
  - resolution
  - audioJack
  - gps
  - battery

- Lets hit the below URL from the browser **http://localhost:8899/mobile/search?brand=Apple&announceDate=2018&sim=esim&battery=9720**

  and we will get the below JSON data displayed in the browser.



6. API Request and Response

- Once you filled the search form and clicked on “Search” button, the browser will send GET ajax request to the mobile search API where the API URL will be in the following format **http://{serverIpAddress}:{serverPort}/mobile/search?{criteria}** where

    - serverIpAddress placeholder is the server IP that running the mobile-search-api, if it is running on local machine, you can use **localhost**

    - serverPort placeholder is the server port that running the mobile-search-api, in our case, I explicitly configured it to be **8899**

    - criteria placeholder is the criteria to be used in filtering the handsets, for example

        - brand=apple
        - sim=esim
        - priceEur=200
        - brand=apple&sim=esim&priceEur=200

- So the API URL in our case is **http://localhost:8899/mobile/search**

- Lets hit the below request from the browser **http://localhost:8899/mobile/search?brand=Apple&announceDate=2018&sim=esim&battery=9720**

    - In case there is data available, we will get the below response with **HTTP Status Code: 200** in the response header**.**


```
{
  "total" : 1,
  "handsets" : [ {
    "id" : 25846,
    "brand" : "Apple",
    "phone" : "Apple iPad Pro 12.9 (2018)",
    "picture" : "https://cdn2.gsmarena.com/vv/bigpic/apple-ipad-pro-129-2018.jpg",
    "release" : {
      "announceDate" : "2018 October",
      "priceEur" : 1100
    },
    "sim" : "Nano-SIM eSIM",
    "resolution" : "2048 x 2732 pixels",
    "hardware" : {
      "audioJack" : "No",
      "gps" : "Yes with A-GPS",
      "battery" : "Li-Po 9720 mAh battery (36.71 Wh)"
    }
```

- In case there is no data available, we will get the below response with **HTTP Status Code: 404**

http://localhost:8899/mobile/search?brand=sameh&announceDate=2018&sim=esim&battery=9720

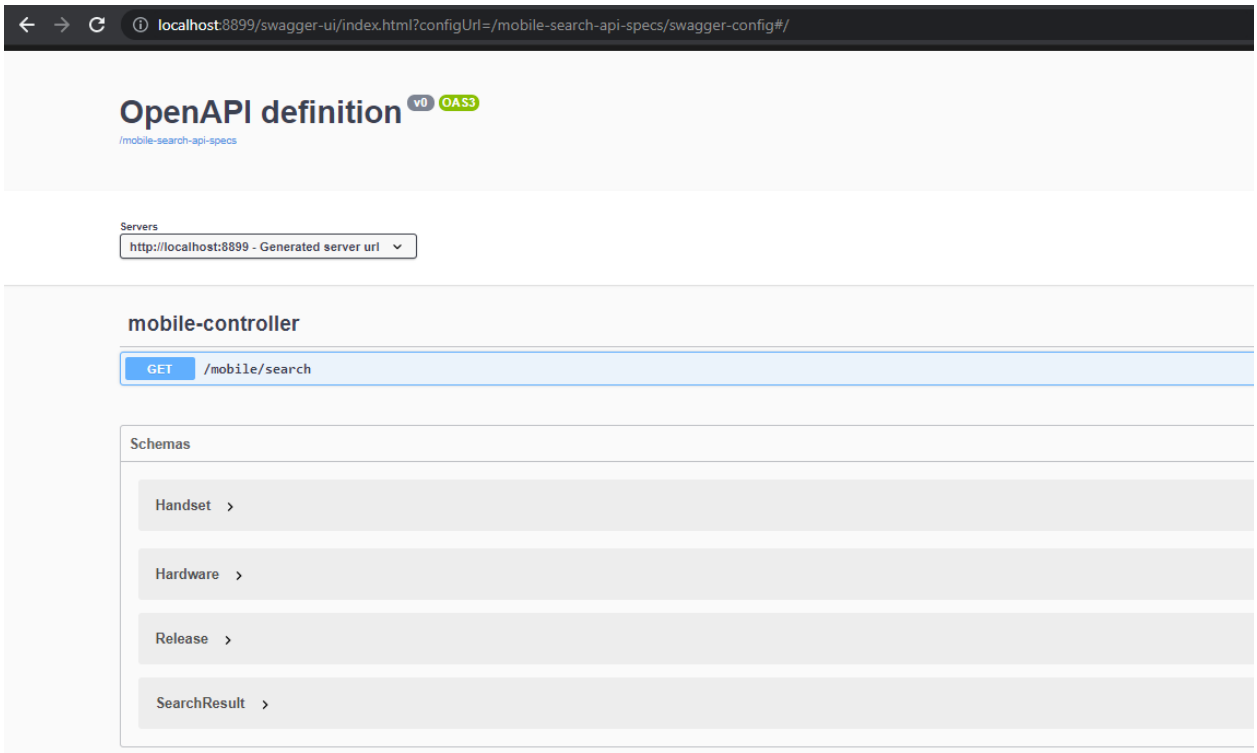

```
{
  "status" : 404,
  "occuredAt" : "2021-06-06 12:13:25",
  "message" : "No handsets found for the following passed criteria {brand=sameh, announceDate=2018, sim=esim, battery=9720}"
}
```


8. Consume the API from Swagger

- To consume the API, you can access the Swagger UI from this link http://localhost:8899/mobile-search-api-consumer-ui.html

- **Swagger UI home Page**

  After running the mobile-search-api.jar / docker image, you can access the Swagger UI using the following link **http://localhost:8899/mobile-search-api-consumer-ui.html**



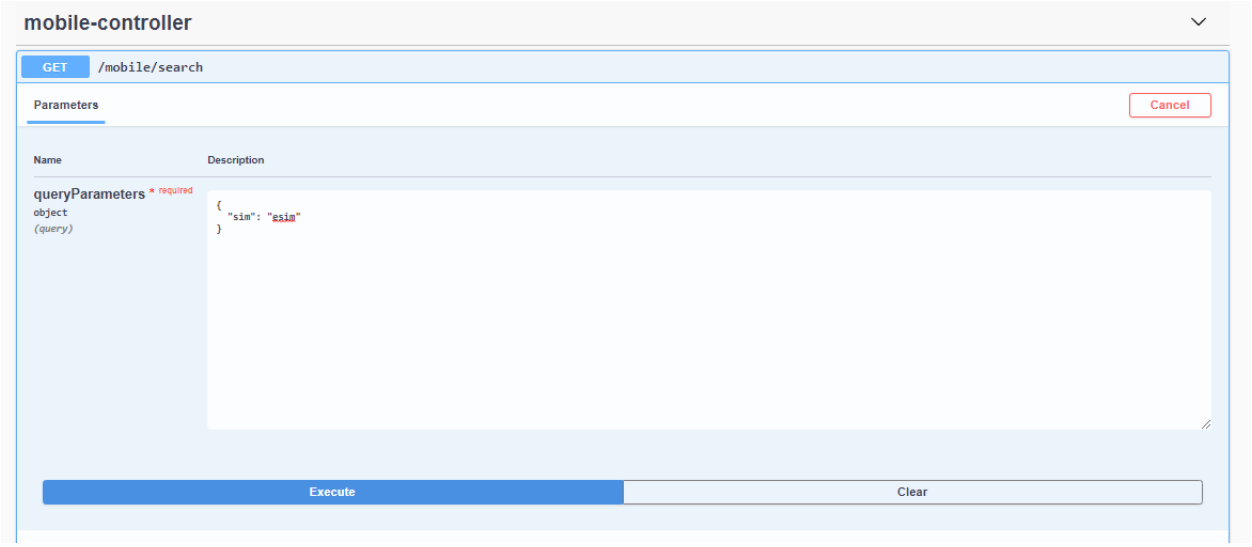
Get /mobile/search Operation.

- If the JSON service is not available, mobile search API will return HTTP status code **500** along with the below **JSON** response.
    - Request query parameters

      {

      "sim": "esim"

      }
    - Request SS form the swagger.



- Response
    - Curl

curl -X GET "http://localhost:8899/mobile/search?sim=esim" -H "accept: application/json"

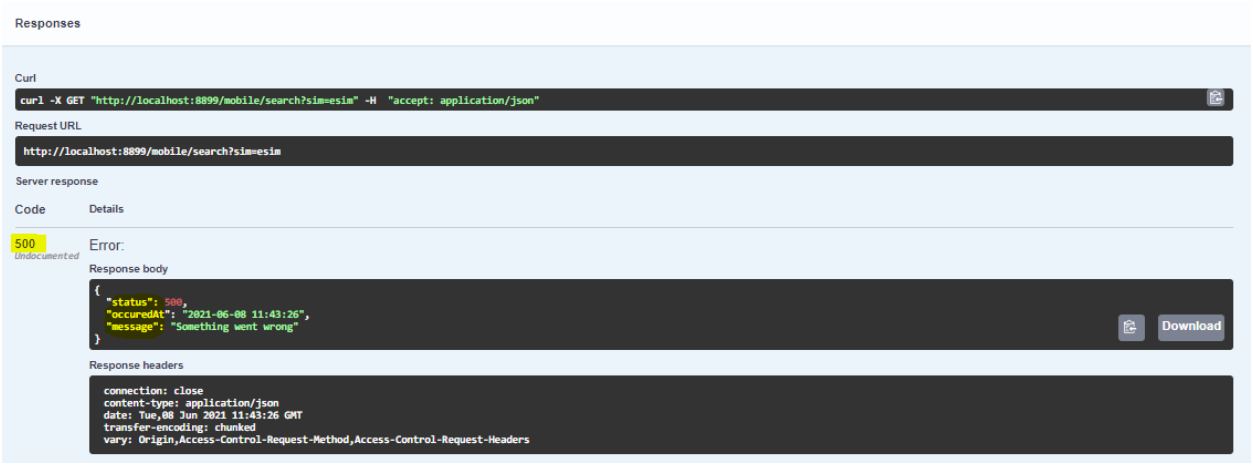
    - Request URL

      http://localhost:8899/mobile/search?sim=esim

- Response Body in JSON format

```
{
  "status": 500,
  "occuredAt": "2021-06-08 11:43:26",
  "message": "Something went wrong"
}
```

- Response SS from the swagger



- If the JSON service is available, and
  - if the search criteria are valid, then mobile search API will return HTTP status code **200** along with JSON response.
  - if the search criteria are not valid, then mobile search API will return HTTP status code **404** along with JSON response