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## API Documentation

### External Server

- **<https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/apiName>**

### API Server

- **<https://ec2-3-142-218-191.us-east-2.compute.amazonaws.com:63221/api/apiName>**

(api calls work if either making call using the api or external server URL)

### API Endpoints list:

- add\_device
- add\_equipment
- add\_manufacturer
- check\_device\_exists
- check\_manufacturer\_exists
- check\_serialNum\_exists
- get\_lastEquipAutoID
- list\_devices
- list equipments
- list\_manufacturers
- modify\_device
- modify\_equipment
- modify\_manufacturer
- search\_device
- search\_manufacturer
- search\_serialNum
- view\_single\_equipment

## add\_device

- Required parameters
  - device\_input
    - name of device being added
- output upon success
  - ["Status: **Success**"; "MSG: \"Device successfully added\""; "Action: none"]
- Output upon failure
  - ["Status: **ERROR**"; "MSG: Missing device name input."; "Action: add\_device"]
  - ["Status: ERROR"; "MSG: Device input is too long, must be less than '32' characters"; "Action: add\_device"]
  - ["Status: ERROR"; "MSG: Device name has invalid input"; "Action: add\_device"]
  - ["Status: ERROR"; "MSG: Device name already exists"; "Action: add\_device"]
- Example call

[https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/add\\_device?device\\_input=mouse](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/add_device?device_input=mouse)

## add\_equipment

- Required parameters
  - next\_device\_num
    - auto id of next entry in equipment table (auto increment could not be added to my table as server would crash, solution is to get the max id then +1)
  - device
    - device number
  - manufacturer
    - manufacturer number
  - serialNum
    - serial number
- output upon success
  - ["Status: Success"; "MSG: \"Equipment successfully added\""; "Action: none"]
- Output upon failure

- ["Status: ERROR","MSG: Missing auto id for the insert.,"Action: get\_lastEquipAutoID"]
- ["Status: ERROR","MSG: Missing device id.,"Action: add\_equipment"]
- ["Status: ERROR","MSG: Missing manufacturer id.,"Action: add\_equipment"]
- ["Status: ERROR","MSG: Missing serial number.,"Action: add\_equipment"]
- ["Status: ERROR","MSG: Serial number input is too long, must be less than '90' characters","Action: add\_equipment"]
- ["Status: ERROR","MSG: Serial number has invalid input","Action: add\_equipment"]
- ["Status: ERROR","MSG: Auto id has invalid input","Action: add\_equipment"]
- ["Status: ERROR","MSG: Manufacturer number has invalid input","Action: add\_equipment"]
- ["Status: ERROR","MSG: Device number has invalid input","Action: add\_equipment"]
- ["Status: ERROR","MSG: Serial number already exists","Action: add\_equipment"]
- ["Status: ERROR","MSG: Device number doesn't exist or is inactive","Action: add\_equipment"]
- ["Status: ERROR","MSG: Manufacturer number doesn't exist or is inactive","Action: add\_equipment"]
- ["Status: ERROR","MSG: next\_device\_num value is not the next auto id index in equipment table","Action: get\_lastEquipAutoID"]
- Example call

[https://ec2-3-149-213-79.us-east-](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/add_equipment?next_device_num=4999432&device=2&manufacturer=4&serialNum=SN-1114)

[2.compute.amazonaws.com/api/add\\_equipment?next\\_device\\_num=4999432&device=2&manufacturer=4&serialNum=SN-1114](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/add_equipment?next_device_num=4999432&device=2&manufacturer=4&serialNum=SN-1114)

## **add\_manufacturer**

- Required parameters
  - manufacturer\_input
    - name of manufacturer being added (**by default when adding, status is set to active**)
- output upon success

- ["Status: Success","MSG: \"Manufacturer successfully added\\\"\",\"Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: Missing manufacturer name input.","Action: add\_manufacturer"]
  - ["Status: ERROR","MSG: Manufacturer input is too long, must be less than '32' characters","Action: add\_manufacturer"]
  - ["Status: ERROR","MSG: Manufacturer name has invalid input","Action: add\_manufacturer"]
  - ["Status: ERROR","MSG: Manufacturer name already exists","Action: add\_device"]
- Example call

[https://ec2-3-149-213-79.us-east-](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/add_manufacturer?manufacturer_input=delssss)

[2.compute.amazonaws.com/api/add\\_manufacturer?manufacturer\\_input=delssss](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/add_manufacturer?manufacturer_input=delssss)

#### **check\_device\_exists** (returns number of records matched)

- Required parameters
  - device\_input
    - name of device being checked exists in device types table
- Output upon success
  - No matches, device name doesn't exist
    - ["Status: Success","MSG: 0","Action: none"]
  - Does exist
    - ["Status: Success","MSG: 1","Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: Missing device name input.","Action: check\_device\_exists"]
  - ["Status: ERROR","MSG: Device input is too long, must be less than '32' characters","Action: check\_device\_exists "]
  - ["Status: ERROR","MSG: Device name has invalid input","Action: check\_device\_exists "]
- Example call

[https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/check\\_device\\_exists?device\\_input=projector](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/check_device_exists?device_input=projector)

**check\_manufacturer\_exists** (returns number of records matched)

- Required parameters
  - manufacturer\_input
    - name of manufacturer being checked exists in manufacturers table
- Output upon success
  - No matches, doesn't exist
    - ["Status: Success","MSG: 0","Action: none"]
  - Does exist
    - ["Status: Success","MSG: 1","Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: Missing manufacturer name input.,"Action: check\_manufacturer\_exists"]
  - ["Status: ERROR","MSG: Manufacturer input is too long, must be less than '32' characters","Action: check\_manufacturer\_exists "]
  - ["Status: ERROR","MSG: Manufacturer name has invalid input","Action: check\_manufacturer\_exists "]
- Example call

[https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/check\\_device\\_exists?device\\_input=projector](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/check_device_exists?device_input=projector)

**check\_serialNum\_exists** (returns number of records matched)

- Required parameters
  - serialNum
    - serial number being checked exists
- Output upon success
  - No matches, doesn't exist
    - ["Status: Success","MSG: 0","Action: none"]
  - Does exist
    - ["Status: Success","MSG: 1","Action: none"]

- https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/check\_serialNum\_exists?serialNum=SN-13

- No Required parameters
- Output upon success
  - ["Status: Success","MSG: 4999433","Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: There are no records in the equipments table, cannot retrieve the index.","Action: add\_equipment"]
- Example call

## list devices

- [illegible]

- Example call

[https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/list\\_devices](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/list_devices)

**list equipments** (used to query the equipment records in the view page)

- Required parameters
  - list\_deviceNum
    - list of equipment ids from search page
  - first\_num
    - LIMIT value for query (set to 1000)
- Output upon success
  - ["Status: Success","MSG:
 

```
{
  "device_num": ["2", "3", "4", "5"],
  "device_type_name": ["television", "laptop", "computer", "vehicle"],
  "manufacturer_name": ["LG", "Huawei", "Google", "Nissan"],
  "serial_num": ["SN-9b52d2d9ddf2070191b82e3fe9130e8f486ba538095ad3d8456bd31020d3629a", "SN-593fceb1885e631ff813e1083328d374167b9de7bc9aa8decec22b3d1a76d1c", "SN-b06d4121d45ae5b98016bbe75e0be1bcf5e1570fecaa36c591c41d4a05325d73", "SN-9be50d680058bcd7e0e9ecb121ae80ec05a9d6a642bb61ce092bd2ff20a153e0"],
  "status": ["active", "active", "active", "active"]}

```

 Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: Missing first\_num LIMIT attribute for query","Action: list equipments"]
  - ["Status: ERROR","MSG: Missing list of equipment ids as comma separated values","Action: list equipments"]
  - ["Status: ERROR","MSG: first\_num LIMIT number has invalid input or is not 1000 (cannot adjust this value)","Action: list equipments"]
  - ["Status: ERROR","MSG: values in equipment list are invalid","Action: list equipments"]
- Example call

[https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/list equipments?first\\_num=1000&list\\_deviceNum=2,3,4,5](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/list equipments?first_num=1000&list_deviceNum=2,3,4,5)

## **list\_manufacturers**

- No Required parameters
- Output upon success
  - ["Status: Success","MSG: {\"1\": \"Microsoft\", \"2\": \"Sony\", \"3\": \"LG\", \"4\": \"Chrysler\", \"5\": \"KIA\", \"6\": \"OnePlus\", \"7\": \"Samsung\", \"8\": \"Apple\", \"9\": \"Ford\", \"10\": \"IBM\", \"11\": \"Epson\", \"12\": \"GM\", \"13\": \"Westinghouse\", \"14\": \"Optoma\", \"15\": \"Hyundai\", \"16\": \"VIZIO\", \"17\": \"Panasonic\", \"18\": \"HP\", \"19\": \"Dell\", \"20\": \"Lenovo\", \"21\": \"TCL\", \"22\": \"Jeep\", \"23\": \"Acer\", \"24\": \"Asus\", \"25\": \"Hisense\", \"26\": \"Generic\", \"27\": \"ViewSonic\", \"28\": \"Chevrolet\", \"29\": \"Insignia\", \"30\": \"Gateway\", \"31\": \"Huawei\", \"32\": \"Google\", \"33\": \"Toyota\", \"34\": \"Nokia\", \"35\": \"Motorola\", \"36\": \"Nissan\", \"40\": \"TestMan1\", \"43\": \"delssss\"}","Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: There are no records in the manufacturers table","Action: add\_manufacturers"]
- Example call

[https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/list\\_manufacturers](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/list_manufacturers)

## **modify\_device**

- Required parameters
  - device\_input
    - new device name (or keep the same)
  - status
    - active or inactive
  - device\_type\_num
    - device type id



- Output upon success
  - ["Status: Success","MSG: \"Successfully modified specified device #26 to jgjgy and status: active\\\"","Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: Missing device name input.","Action: modify\_device"]
  - ["Status: ERROR","MSG: Missing status.","Action: modify\_device"]
  - ["Status: ERROR","MSG: Missing device type id.","Action: modify\_device"]
  - ["Status: ERROR","MSG: Device input is too long, must be less than '32' characters","Action: modify\_device"]
  - ["Status: ERROR","MSG: Device name has invalid input","Action: modify\_device"]
  - ["Status: ERROR","MSG: Status has invalid input, must either be active or inactive","Action: modify\_device"]
  - ["Status: ERROR","MSG: Device type id has invalid input","Action: modify\_device"]
  - ["Status: ERROR","MSG: Device name already exists","Action: modify\_device"]
  - ["Status: ERROR","MSG: Device type id does not exist or is set to inactive","Action: modify\_device"]
- Example call

[https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/modify\\_device?device\\_input=jgjgy&status=active&device\\_type\\_num=26](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/modify_device?device_input=jgjgy&status=active&device_type_num=26)

## **modify\_manufacturer**

- Required parameters
  - manufacturer\_input
    - new manufacturer name (or keep the same)
  - status
    - active or inactive
  - manufacturer\_type\_num
    - manufacturer id
- Output upon success
  - ["Status: Success","MSG: \"Successfully modified specified manufacturer #43 to aaaa and status: active\\\"","Action: none"]

- Output upon failure
  - ["Status: ERROR","MSG: Missing manufacturer name input.,"Action: modify\_manufacturer"]
  - ["Status: ERROR","MSG: Missing status.,"Action: modify\_manufacturer"]
  - ["Status: ERROR","MSG: Missing manufacturer id.,"Action: modify\_manufacturer"]
  - ["Status: ERROR","MSG: Manufacturer input is too long, must be less than '32' characters","Action: modify\_manufacturer"]
  - ["Status: ERROR","MSG: Manufacturer name has invalid input","Action: modify\_manufacturer"]
  - ["Status: ERROR","MSG: Status has invalid input, must either be active or inactive","Action: modify\_manufacturer"]
  - ["Status: ERROR","MSG: Manufacturer id has invalid input","Action: modify\_manufacturer"]
  - ["Status: ERROR","MSG: Manufacturer id does not exist or is set to inactive","Action: modify\_manufacturer"]
  - ["Status: ERROR","MSG: Manufacturer name already exists","Action: modify\_manufacturer"]
- Example call

[https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/modify\\_manufacturer?manufacturer\\_input=aaaaaaaa&status=active&manufacturer\\_num=43](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/modify_manufacturer?manufacturer_input=aaaaaaaa&status=active&manufacturer_num=43)

## **modify\_equipment**

- Required parameters
  - serial\_num
    - serial number
  - status
    - active or inactive
  - device\_type\_num
    - device type id
  - device\_num
    - equipment id
  - manufacturer\_num

- manufacturer id
- Output upon success
  - ["Status: Success","MSG: \"Successfully modified the equipment record\\\"","Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: Missing equipment id for the insert.","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Missing device id.","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Missing manufacturer id.","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Missing status.","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Missing serial number.","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Serial number input is too long, must be less than '90' characters","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Serial number has invalid input","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Equipment id has invalid input","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Device number has invalid input","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Manufacturer number has invalid input","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Status has invalid input, must either be active or inactive","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Equipment id doesn't exist or is inactive","Action: list equipments"]
  - ["Status: ERROR","MSG: Serial number already exists","Action: modify\_equipment"]
  - ["Status: ERROR","MSG: Device number doesn't exist or is inactive","Action: list\_devices"]
  - ["Status: ERROR","MSG: Manufacturer number doesn't exist or is inactive","Action: list\_manufacturers"]
- Example call

[https://ec2-3-149-213-79.us-east-](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/modify_equipment?device_num=4999432&device_type_num=3&manufacturer_num=4&status=inactive&serial_num=SN-00000)

[2.compute.amazonaws.com/api/modify\\_equipment?device\\_num=4999432&device\\_type\\_num=3&manufacturer\\_num=4&status=inactive&serial\\_num=SN-00000](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/modify_equipment?device_num=4999432&device_type_num=3&manufacturer_num=4&status=inactive&serial_num=SN-00000)

**IMPORTANT: the code for the web endpoints rely on the search endpoints outputting an empty array if has no matches (so does not output a message in this scenario due to code checking if array is empty upon knowing that there were no matches)**

**search\_device** (search equipments by device name. Returns equipment ids that match)

- Required parameters
  - search\_input
    - device name
  - first\_num
    - LIMIT value for query (set to 1000)
- optional parameters
  - inactive\_option
    - if set to “True” will query inactive equipment records (BY DEFAULT only searches active equipment records)
- Output upon success
  - ["Status: Success","MSG: [\"4999423\\\", \"4999424\\\", \"4999429\\\"]","Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: Missing device name input to search by.","Action: search\_device"]
  - ["Status: ERROR","MSG: Missing first\_num LIMIT attribute for query","Action: search\_device"]
  - ["Status: ERROR","MSG: Input is too long, must be less than '32' characters","Action: search\_device"]
  - ["Status: ERROR","MSG: first\_num LIMIT number has invalid input or is not 1000 (cannot adjust this value)","Action: search\_device"]
  - ["Status: ERROR","MSG: Search input is invalid","Action: search\_device"]
  - ["Status: ERROR","MSG: Device name trying to search by does not exist","Action: list\_devices"]
- Example call

[https://ec2-3-149-213-79.us-east-](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/search_device?search_input=TestDevice1&first_num=1000&inactive_option=True)

[2.compute.amazonaws.com/api/search\\_device?search\\_input=TestDevice1&first\\_num=1000&inactive\\_option=True](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/search_device?search_input=TestDevice1&first_num=1000&inactive_option=True)

**search\_manufacturer** (search equipments by manufacturer name. Returns equipment ids that match)

- Required parameters
  - search\_input
    - manufacturer name
  - first\_num
    - LIMIT value for query (set to 1000)
- optional parameters
  - inactive\_option
    - if set to “True” will query inactive equipment records (BY DEFAULT only searches active equipment records)
- Output upon success
  - ["Status: Success","MSG: [\"4999423\\\", \"4999424\\\", \"4999429\\\"]","Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: Missing manufacturer name input to search by.,"Action: search\_manufacturer"]
  - ["Status: ERROR","MSG: Missing first\_num LIMIT attribute for query","Action: search\_manufacturer "]
  - ["Status: ERROR","MSG: Input is too long, must be less than '32' characters","Action: search\_manufacturer "]
  - ["Status: ERROR","MSG: first\_num LIMIT number has invalid input or is not 1000 (cannot adjust this value)","Action: search\_manufacturer "]
  - ["Status: ERROR","MSG: Search input is invalid","Action: search\_manufacturer "]
  - ["Status: ERROR","MSG: Manufacturer name trying to search by does not exist","Action: list\_manufacturers"]
- Example call

[https://ec2-3-149-213-79.us-east-](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/search_manufacturer?search_input=TestMan1&first_num=1000&inactive_option=True)

[2.compute.amazonaws.com/api/search\\_manufacturer?search\\_input=TestMan1&first\\_num=1000&inactive\\_option=True](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/search_manufacturer?search_input=TestMan1&first_num=1000&inactive_option=True)

**search\_serialNum** (search equipments by serial Number. Returns equipment ids that match)

- Required parameters
  - search\_input
    - serial number
  - first\_num
    - LIMIT value for query (set to 1000)
- optional parameters
  - inactive\_option
    - if set to “True” will query inactive equipment records (BY DEFAULT only searches active equipment records)
- Output upon success
  - ["Status: Success","MSG: [\"4999423\"]","Action: none"]
- Output upon failure
  - ["Status: ERROR","MSG: Missing serial number input to search by.","Action: search\_serialNum"]
  - ["Status: ERROR","MSG: Missing first\_num LIMIT attribute for query","Action: search\_serialNum "]
  - ["Status: ERROR","MSG: Input is too long, must be less than '90' characters","Action: search\_serialNum"]
  - ["Status: ERROR","MSG: first\_num LIMIT number has invalid input or is not 1000 (cannot adjust this value)","Action: search\_serialNum "]
  - ["Status: ERROR","MSG: Search input is invalid","Action: search\_serialNum "]
- Example call

https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/search\_serialNum?search\_input=SN-13&first\_num=1000&inactive\_option=True

### **view\_single\_equipment**

- Required parameters
  - device\_num
    - equipment id
- Output upon success
  - ["Status: Success","MSG: {\"device\_type\_name\\\": \"TestDevice1\\\", \"manufacturer\_name\\\": \"TestMan1\\\", \"serial\_num\\\": \"SN-

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17\\",\\\\"status\\\\":\\\\"inactive\\\\"\\",\\\\"device_type_num\\\\":\\\\"15\\\\"\\",\\\\"man  
ufacturer_num\\\\":\\\\"40\\\\"}\\\"\\\", \"Action: none\"]
```

- Output upon failure
  - ["Status: ERROR","MSG: Missing equipment id.,"Action: view\_single\_equipment"]
  - ["Status: ERROR","MSG: Equipment id has invalid input","Action: view\_single\_equipment"]
  - ["Status: ERROR","MSG: Equipment id doesn't exist","Action: list equipments"]
- Example call

[https://ec2-3-149-213-79.us-east-](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/view_single_equipment?device_num=3)

[2.compute.amazonaws.com/api/view\\_single\\_equipment?device\\_num=3](https://ec2-3-149-213-79.us-east-2.compute.amazonaws.com/api/view_single_equipment?device_num=3)