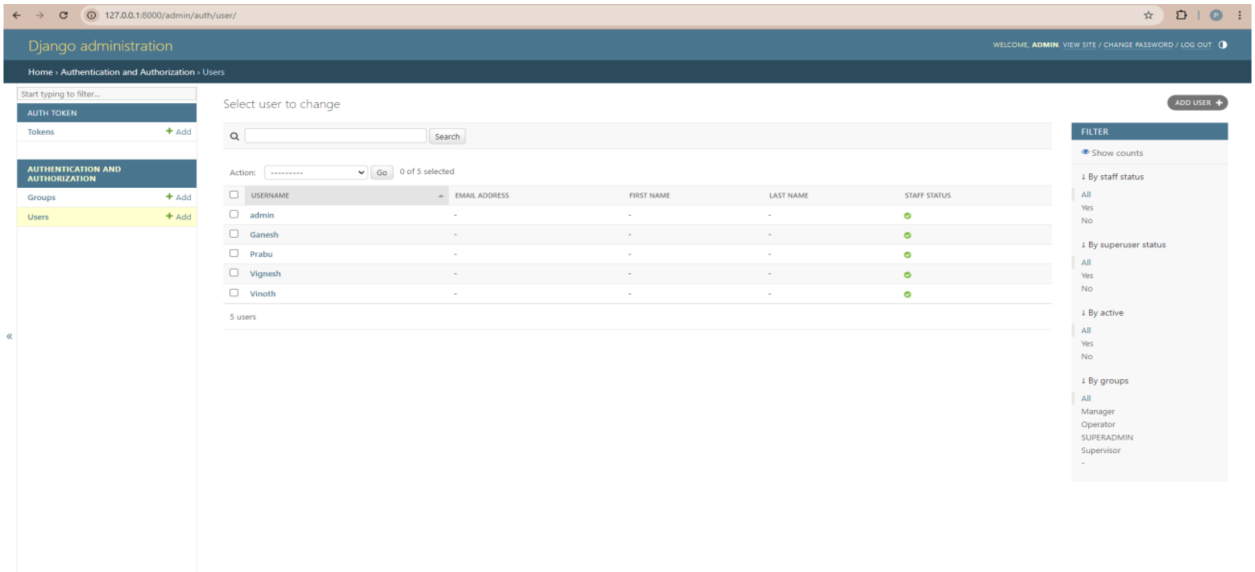
1. I Have created the Django admin username: admin pass :admin@123 and I am created the 4 users based on that User groups


127.0.0.1:8000/admin/auth/user/
Django administration
WELCOME, ADMIN. VIEW SITE / CHANGE PASSWORD / LOG OUT
Home › Authentication and Authorization › Users
Start typing to filter...
AUTH TOKEN
Tokens + Add
AUTHENTICATION AND AUTHORIZATION
Groups + Add
Users + Add
ADD USER +
Search
Action: --------- Go

Select user to change

0 of 5 selected

□	USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS
□	admin	-	-	-	✓
□	Ganesh	-	-	-	✓
□	Prabu	-	-	-	✓
□	Vignesh	-	-	-	✓
□	Vinoth	-	-	-	✓

5 users

FILTER

Show counts

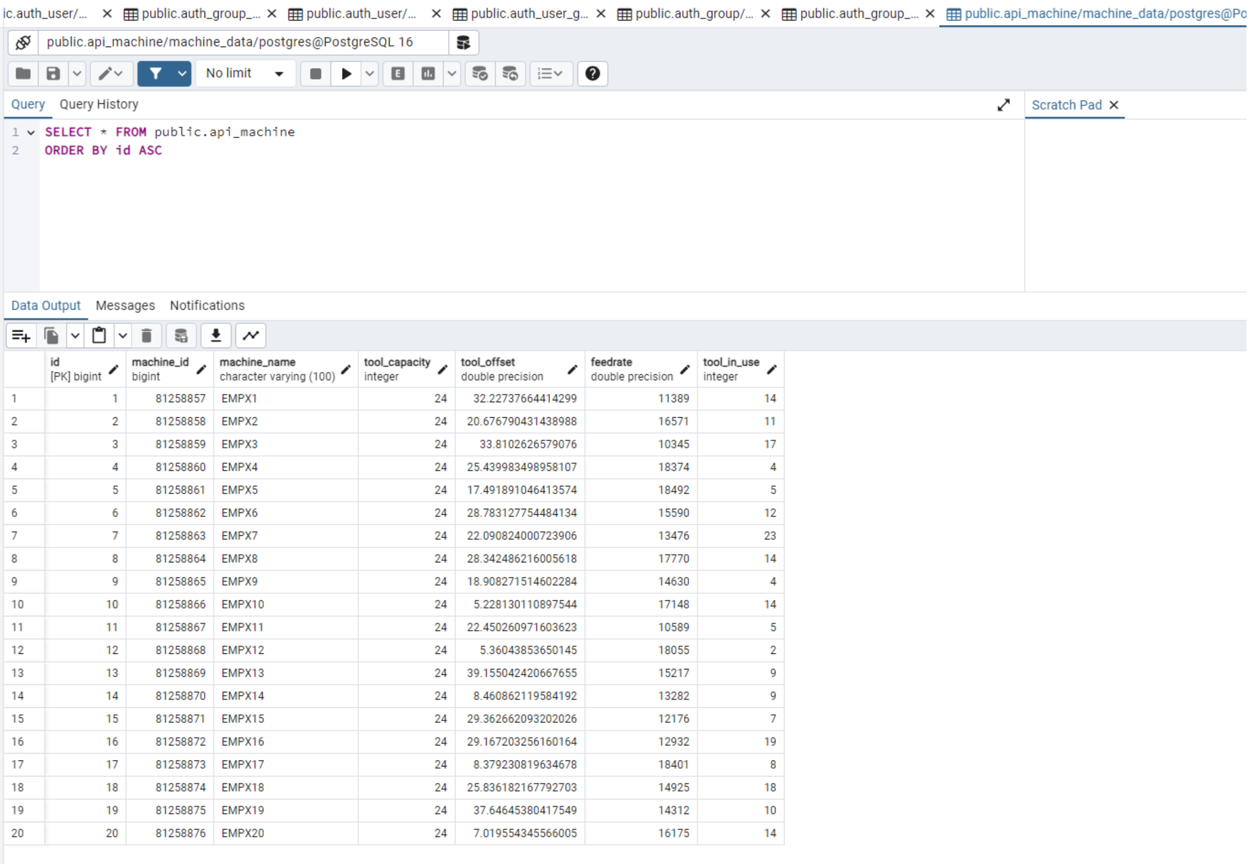
↓ By staff status
All
Yes
No

↓ By superuser status
All
Yes
No

↓ By active
All
Yes
No

↓ By groups
All
Manager
Operator
SUPERADMIN
Supervisor
-

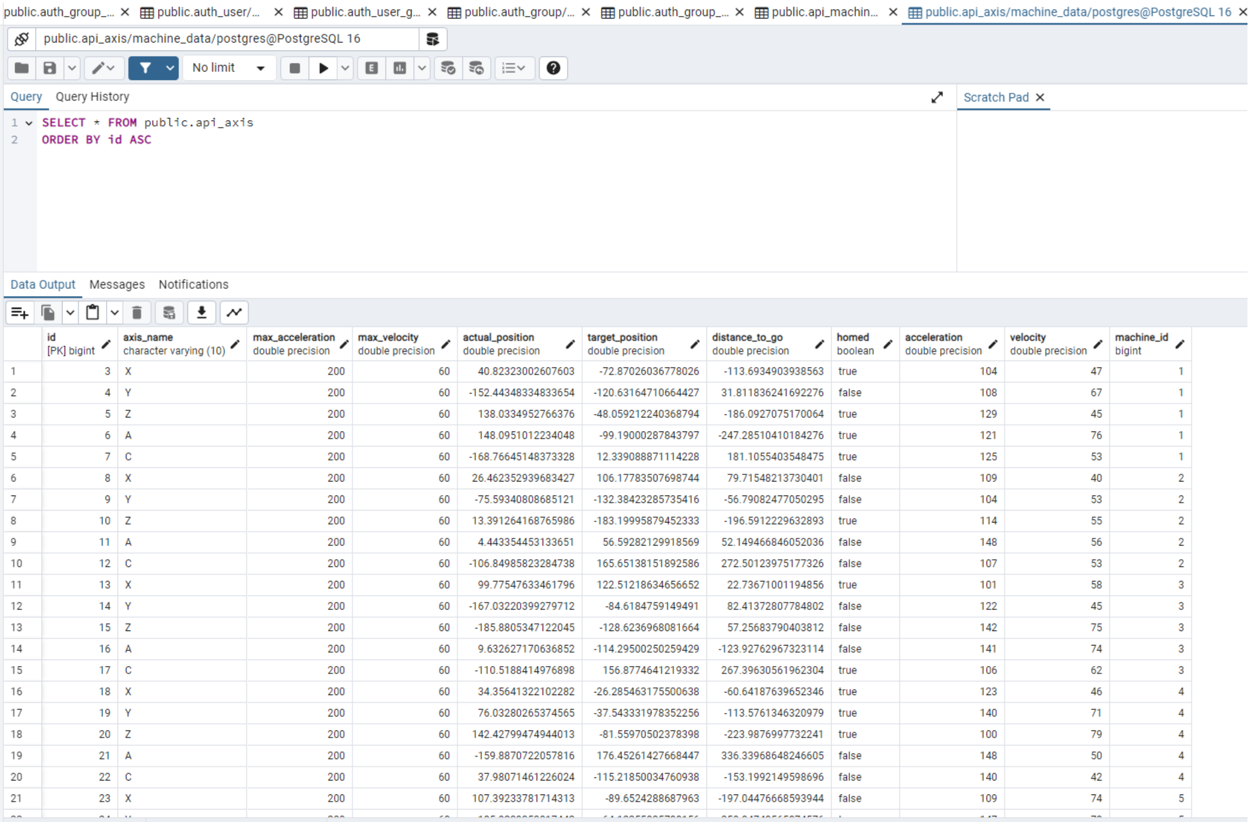
I have created the machine data based on Django models and datas are inserted into based on part 1 assignment requirement.



```
SELECT * FROM public.api_machine
ORDER BY id ASC
```

	id [PK] bigint	machine_id bigint	machine_name character varying (100)	tool_capacity integer	tool_offset double precision	feedrate double precision	tool_in_use integer
1	1	81258857	EMPX1	24	32.22737664414299	11389	14
2	2	81258858	EMPX2	24	20.676790431438988	16571	11
3	3	81258859	EMPX3	24	33.8102626579076	10345	17
4	4	81258860	EMPX4	24	25.439983498958107	18374	4
5	5	81258861	EMPX5	24	17.491891046413574	18492	5
6	6	81258862	EMPX6	24	28.783127754484134	15590	12
7	7	81258863	EMPX7	24	22.090824000723906	13476	23
8	8	81258864	EMPX8	24	28.342486216005618	17770	14
9	9	81258865	EMPX9	24	18.908271514602284	14630	4
10	10	81258866	EMPX10	24	5.228130110897544	17148	14
11	11	81258867	EMPX11	24	22.450260971603623	10589	5
12	12	81258868	EMPX12	24	5.36043853650145	18055	2
13	13	81258869	EMPX13	24	39.155042420667655	15217	9
14	14	81258870	EMPX14	24	8.460862119584192	13282	9
15	15	81258871	EMPX15	24	29.362662093202026	12176	7
16	16	81258872	EMPX16	24	29.167203256160164	12932	19
17	17	81258873	EMPX17	24	8.379230819634678	18401	8
18	18	81258874	EMPX18	24	25.836182167792703	14925	18
19	19	81258875	EMPX19	24	37.64645380417549	14312	10
20	20	81258876	EMPX20	24	7.019554345566005	16175	14

I have created the axis data based on Django models and datas are inserted into based on part 1 assignment requirement.

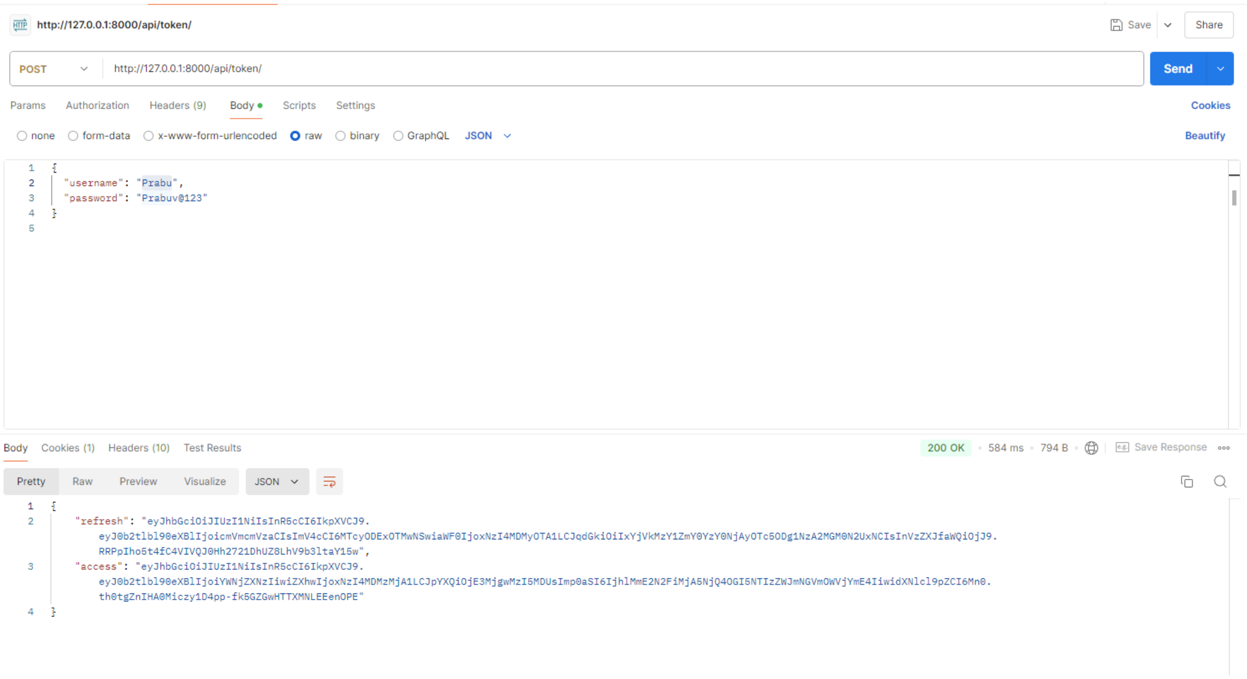


```sql
SELECT * FROM public.api_axis
ORDER BY id ASC
```

	id [PK] bigint	axis_name character varying (10)	max_acceleration double precision	max_velocity double precision	actual_position double precision	target_position double precision	distance_to_go double precision	homed boolean	acceleration double precision	velocity double precision	machine_id bigint
1	3	X	200	60	40.82323002607603	-72.87026036778026	-113.6934903938563	true	104	47	1
2	4	Y	200	60	-152.44348334833654	-120.63164710664427	31.811836241692276	false	108	67	1
3	5	Z	200	60	138.0334952766376	-48.059212240368794	-186.0927075170064	true	129	45	1
4	6	A	200	60	148.0951012234048	-99.19000287843797	-247.28510410184276	true	121	76	1
5	7	C	200	60	-168.76645148373328	12.339088871114228	181.1055403548475	true	125	53	1
6	8	X	200	60	26.462352939683427	106.17783507698744	79.71548213730401	false	109	40	2
7	9	Y	200	60	-75.59340808685121	-132.38423285735416	-56.79082477050295	false	104	53	2
8	10	Z	200	60	13.391264168765986	-183.19995879452333	-196.5912229632893	true	114	55	2
9	11	A	200	60	4.443354453133651	56.59282129918569	52.149466846052036	false	148	56	2
10	12	C	200	60	-106.84985823284738	165.65138151892586	272.50123975177326	false	107	53	2
11	13	X	200	60	99.77547633461796	122.51218634656652	22.73671001194856	true	101	58	3
12	14	Y	200	60	-167.03220399279712	-84.6184759149491	82.41372807784802	false	122	45	3
13	15	Z	200	60	-185.8805347122045	-128.6236968081664	57.25683790403812	false	142	75	3
14	16	A	200	60	9.632627170636852	-114.29500250259429	-123.92762967323114	false	141	74	3
15	17	C	200	60	-110.5188414976898	156.8774641219332	267.39630561962304	true	106	62	3
16	18	X	200	60	34.35641322102282	-26.285463175500638	-60.64187639652346	true	123	46	4
17	19	Y	200	60	76.03280265374565	-37.543331978352256	-113.5761346320979	true	140	71	4
18	20	Z	200	60	142.42799474944013	-81.55970502378398	-223.9876997732241	true	100	79	4
19	21	A	200	60	-159.8870722057816	176.45261427668447	336.33968648246605	false	148	50	4
20	22	C	200	60	37.98071461226024	-115.21850034760938	-153.1992149598696	false	140	42	4
21	23	X	200	60	107.39233781714313	-89.6524288687963	-197.04476668593944	false	109	74	5

Now I am logged in user name Prabu he is an superadmin I gave the all the permission.

Here while I am login at the time showing the access and refresh token



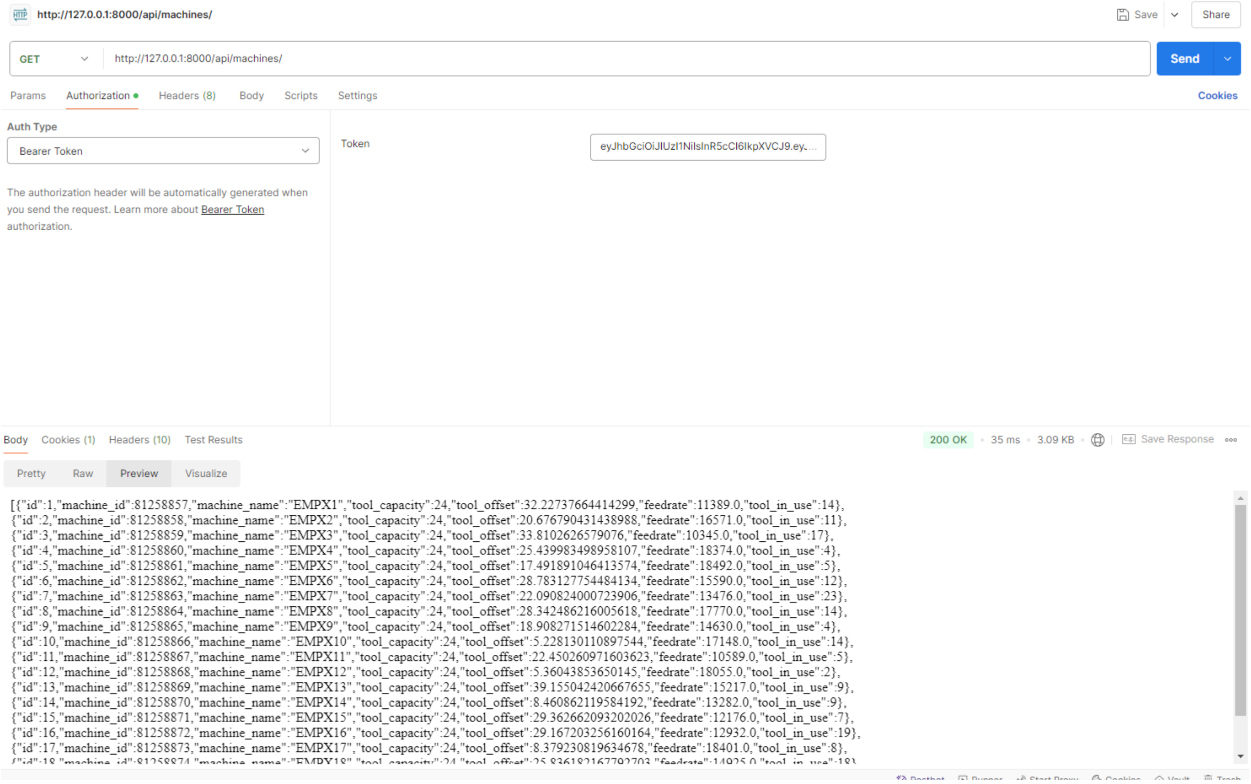
POST http://127.0.0.1:8000/api/token/

```json
{
  "username": "Prabu",
  "password": "Prabuv@123"
}
```

200 OK · 584 ms · 794 B

```json
{
    "refresh": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.
        eyJ0b2tlbl90eXBlIjoicmVmcmVzaCIsImV4cCI6MTcyODExOTMwNSwiaWF0IjoxNzI4MDMyOTA1LCJqdGkiOiIxYjVkMzY1ZmY0YzY0NjAyOTc5ODg1NzA2MGM0N2UxNCIsInVzZXJfaWQiOjJ9.
        RRPpIho5t4fC4VIVQJ0Hh2721DhUZ8LhV9b3ltaY15w",
    "access": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.
        eyJ0b2tlbl90eXBlIjoiYWNjZXNzIiwiZXhwIjoxNzI4MDMzMjA1LCJpYXQiOjE3MjgwMzI5MDUsImp0aSI6IjhlMmE2N2FiMjA5NjQ4OGI5NTIzZWJmNGVmOWVjYmE4IiwidXNlcl9pZCI6Mn0.
        th0tgZnIHA0Miczy1D4pp-fk5GZGwHTTXMNLEEenOPE"
}
```

Now in this url http://127.0.0.1:8000/api/machines/ its showing the all machine datas


http://127.0.0.1:8000/api/machines/

GET http://127.0.0.1:8000/api/machines/

Auth Type: Bearer Token

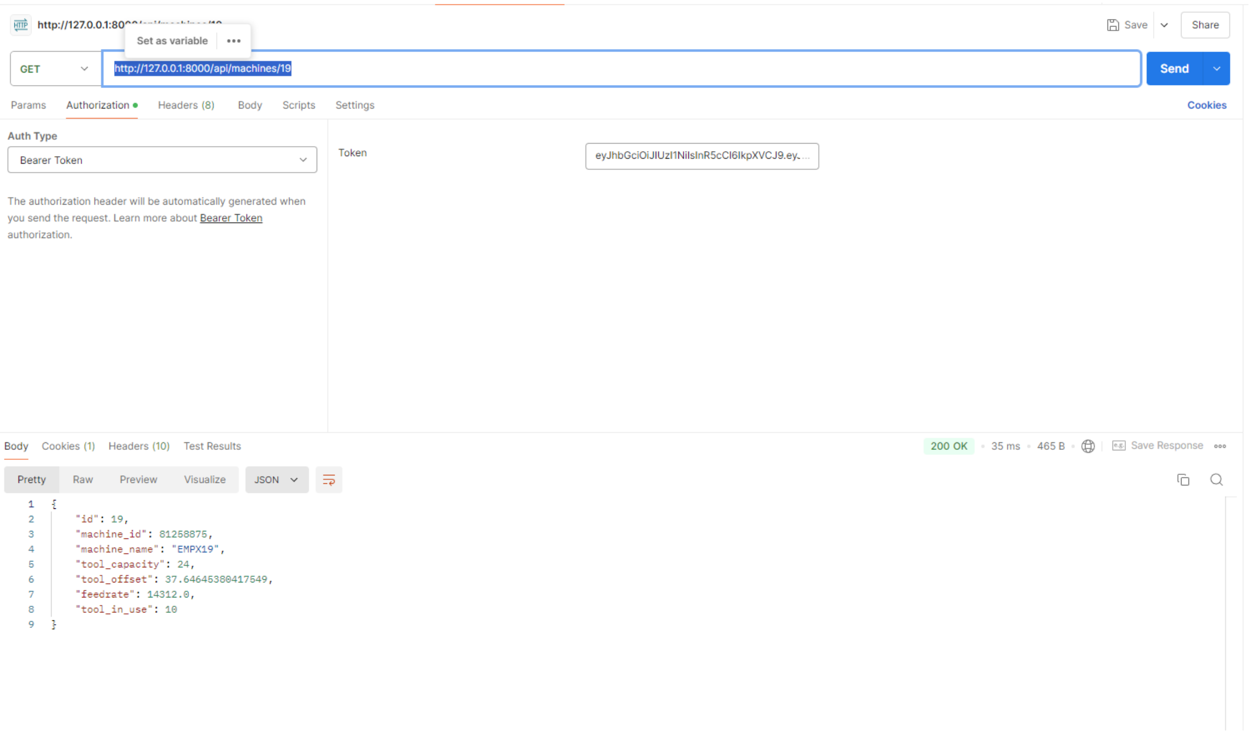
Token: eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.ey...

The authorization header will be automatically generated when you send the request. Learn more about Bearer Token authorization.

200 OK · 35 ms · 3.09 KB

```
[{"id":1,"machine_id":81258857,"machine_name":"EMPX1","tool_capacity":24,"tool_offset":32.22737664414299,"feedrate":11389.0,"tool_in_use":14},
{"id":2,"machine_id":81258858,"machine_name":"EMPX2","tool_capacity":24,"tool_offset":20.676790431438988,"feedrate":16571.0,"tool_in_use":11},
{"id":3,"machine_id":81258859,"machine_name":"EMPX3","tool_capacity":24,"tool_offset":33.8102626579076,"feedrate":10345.0,"tool_in_use":17},
{"id":4,"machine_id":81258860,"machine_name":"EMPX4","tool_capacity":24,"tool_offset":25.439983498958107,"feedrate":18374.0,"tool_in_use":4},
{"id":5,"machine_id":81258861,"machine_name":"EMPX5","tool_capacity":24,"tool_offset":17.491891046413574,"feedrate":18492.0,"tool_in_use":5},
{"id":6,"machine_id":81258862,"machine_name":"EMPX6","tool_capacity":24,"tool_offset":28.783127754484134,"feedrate":15590.0,"tool_in_use":12},
{"id":7,"machine_id":81258863,"machine_name":"EMPX7","tool_capacity":24,"tool_offset":22.090824000723906,"feedrate":13476.0,"tool_in_use":23},
{"id":8,"machine_id":81258864,"machine_name":"EMPX8","tool_capacity":24,"tool_offset":28.342486216005618,"feedrate":17770.0,"tool_in_use":14},
{"id":9,"machine_id":81258865,"machine_name":"EMPX9","tool_capacity":24,"tool_offset":18.908271514602284,"feedrate":14630.0,"tool_in_use":4},
{"id":10,"machine_id":81258866,"machine_name":"EMPX10","tool_capacity":24,"tool_offset":5.228130110897544,"feedrate":17148.0,"tool_in_use":14},
{"id":11,"machine_id":81258867,"machine_name":"EMPX11","tool_capacity":24,"tool_offset":22.450260971603623,"feedrate":10589.0,"tool_in_use":5},
{"id":12,"machine_id":81258868,"machine_name":"EMPX12","tool_capacity":24,"tool_offset":5.36043853650145,"feedrate":18055.0,"tool_in_use":2},
{"id":13,"machine_id":81258869,"machine_name":"EMPX13","tool_capacity":24,"tool_offset":39.155042420667655,"feedrate":15217.0,"tool_in_use":9},
{"id":14,"machine_id":81258870,"machine_name":"EMPX14","tool_capacity":24,"tool_offset":8.460862119584192,"feedrate":13282.0,"tool_in_use":9},
{"id":15,"machine_id":81258871,"machine_name":"EMPX15","tool_capacity":24,"tool_offset":29.362662093202026,"feedrate":12176.0,"tool_in_use":7},
{"id":16,"machine_id":81258872,"machine_name":"EMPX16","tool_capacity":24,"tool_offset":29.167203256160164,"feedrate":12932.0,"tool_in_use":19},
{"id":17,"machine_id":81258873,"machine_name":"EMPX17","tool_capacity":24,"tool_offset":8.379230819634678,"feedrate":18401.0,"tool_in_use":8},
{"id":18,"machine_id":81258874,"machine_name":"EMPX18","tool_capacity":24,"tool_offset":25.836182167792703,"feedrate":14925.0,"tool_in_use":18},
```

Now in this url http://127.0.0.1:8000/api/machines/19 displaying the only 19 th machine value


http://127.0.0.1:8000/api/machines/19

GET http://127.0.0.1:8000/api/machines/19

Auth Type: Bearer Token

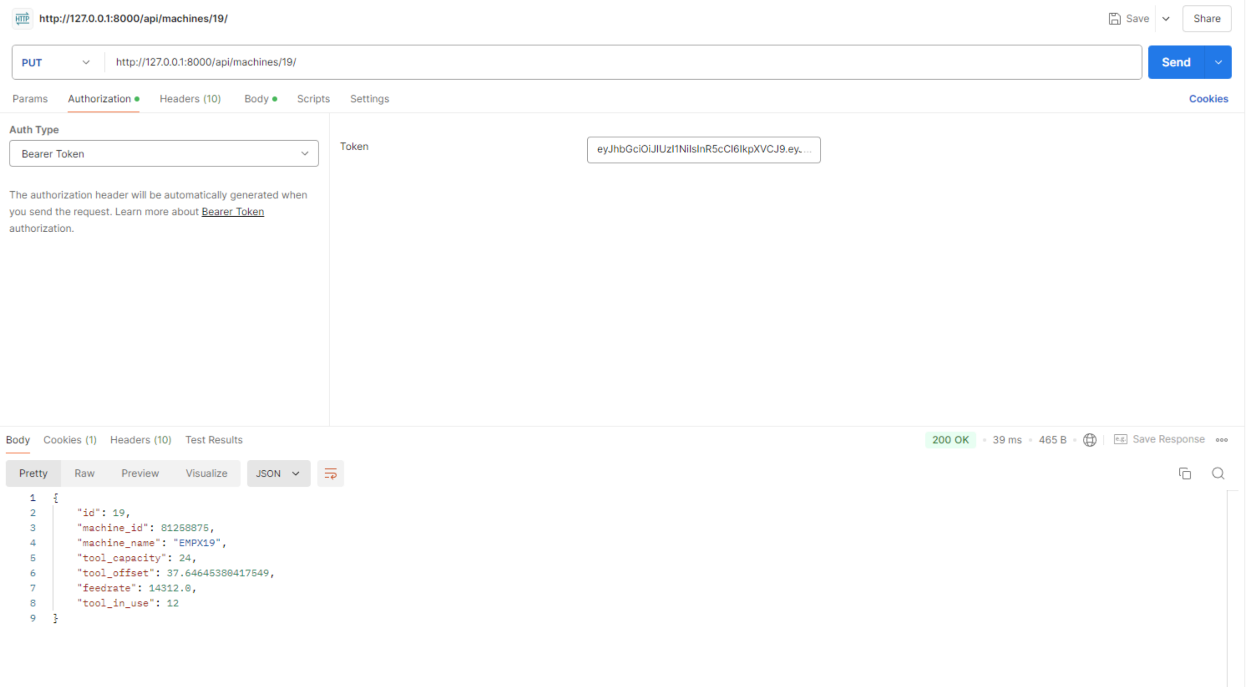
Token: eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.ey...

The authorization header will be automatically generated when you send the request. Learn more about Bearer Token authorization.

200 OK · 35 ms · 465 B

```json
{
    "id": 19,
    "machine_id": 81258875,
    "machine_name": "EMPX19",
    "tool_capacity": 24,
    "tool_offset": 37.64645380417549,
    "feedrate": 14312.0,
    "tool_in_use": 10
}
```

Next I am updating the values in Prabu – superadmin login in this url http://127.0.0.1:8000/api/machines/19/ using update method



http://127.0.0.1:8000/api/machines/19/

PUT http://127.0.0.1:8000/api/machines/19/

Auth Type: Bearer Token

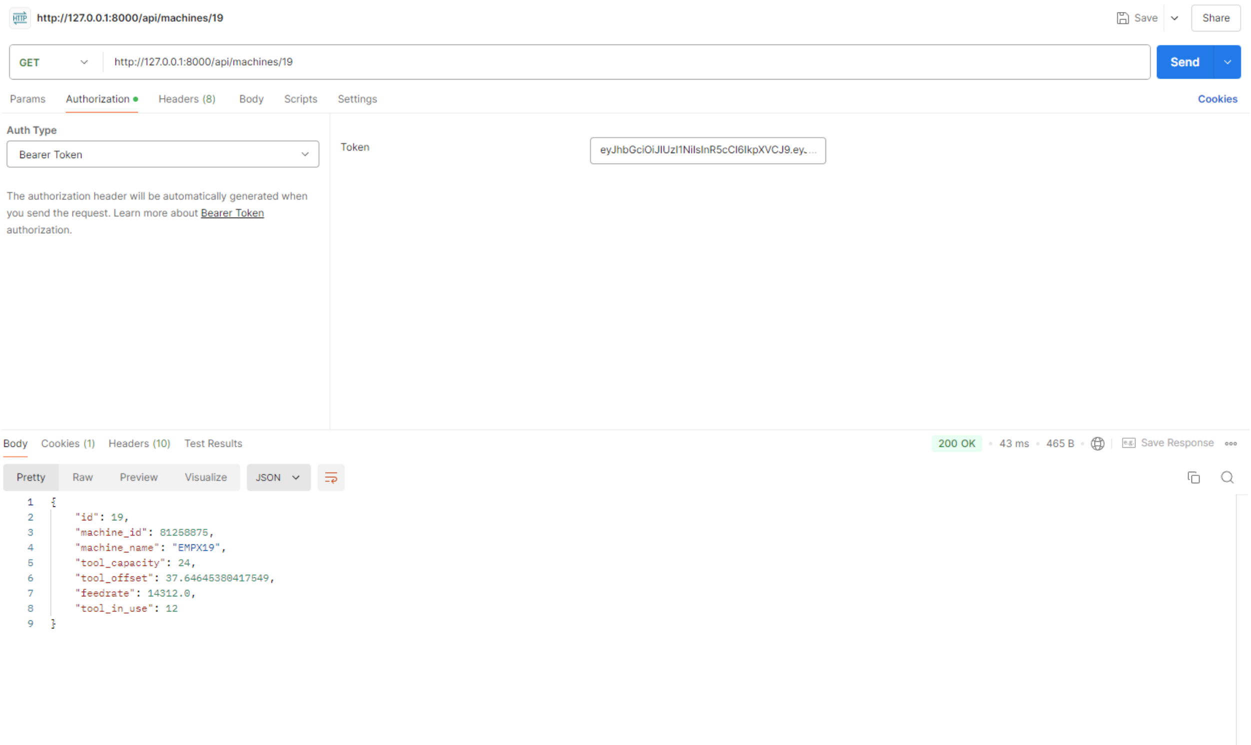
Token: eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.ey...

The authorization header will be automatically generated when you send the request. Learn more about Bearer Token authorization.

200 OK · 39 ms · 465 B

```
{
    "id": 19,
    "machine_id": 81258875,
    "machine_name": "EMPX19",
    "tool_capacity": 24,
    "tool_offset": 37.64645380417549,
    "feedrate": 14312.0,
    "tool_in_use": 12
}
```

Here I attach the updated value showing get method



http://127.0.0.1:8000/api/machines/19

GET http://127.0.0.1:8000/api/machines/19

Auth Type: Bearer Token

Token: eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.ey...

The authorization header will be automatically generated when you send the request. Learn more about Bearer Token authorization.

200 OK · 43 ms · 465 B

```
{
    "id": 19,
    "machine_id": 81258875,
    "machine_name": "EMPX19",
    "tool_capacity": 24,
    "tool_offset": 37.64645380417549,
    "feedrate": 14312.0,
    "tool_in_use": 12
}
```