

First, run the “run_server.py” file located in backend folder. Then the server will run on localhost and a particular port. Then run ngrok on that port on which the server is running. You need to download ngrok binary according to your operating system.

This is screenshot when I run ngrok on mac operating system. When I ran run_server.py, it was running on port no 5000. I ran ngrok using “./ngrok http 5000 --region=eu”. Then ngrok generates a url. Use that url in auth0 rule.

```
ngrok by @inconshreveable (Ctrl+C to stop)

Session Status      online
Account             aditya.thanekar@gmail.com (Plan: Free)
Version             2.3.35
Region              Europe (eu)
Web Interface        http://127.0.0.1:4040
Forwarding           http://4a3aafa78c4e.eu.ngrok.io -> http://localhost:5000
Forwarding           https://4a3aafa78c4e.eu.ngrok.io -> http://localhost:5000

Connections         ttl    opn    rt1    rt5    p50    p90
                   6      0      0.00   0.00   0.01   0.03
```

Replace the part of url which I marked in red. Change the url in rule “Fetch roles and other information from database” which you can find in rules. Every time you run ngrok, the url is different.

Fetch roles and other information from database

Script

```
1 function addRolesFromSqlServer(user, context, callback) {
2   const axios = require('axios@0.19.2');
3   const assignedRolesInDashboard = (context.authorization || {}).roles;
4   const assignedRolesInDatabase = [];
5
6   const options = { method: 'POST',
7     //change this url according to url you get after running ngrok.
8     url: http://4a3aafa78c4e.eu.ngrok.io/auth0_access_employee',
9     headers: { 'content-type': 'application/json' },
10    data: `{"email":"${user.email}"}`
11  };
12  axios(options)
13    .then( res => {
14      if(res.data.success === true) {
```

Some issues with ngrok you might face:

It happened with me. When I ran ngrok on mac while connected to my home wifi, following was the result.

```
ngrok by @inconshreveable (Ctrl+C to quit)
Session Status      reconnecting (Get https://dns.google.com/resolve?cd=true&name=tu
Version             2.3.35
Region              Europe (eu)
Web Interface        http://127.0.0.1:4040
Connections
  ttl    opn    rt1    rt5    p50    p90
    0     0     0.00  0.00  0.00  0.00
```

So when turned on hotspot from my mobile phone and connected my computer to that hotspot, that issue was solved as follows.

```
ngrok by @inconshreveable (Ctrl+C to quit)
Session Status      online
Account             aditya.thanekar@gmail.com (Plan: Free)
Version             2.3.35
Region              Europe (eu)
Web Interface        http://127.0.0.1:4040
Forwarding           http://4a3aafa78c4e.eu.ngrok.io -> http://localhost:5000
Forwarding           https://4a3aafa78c4e.eu.ngrok.io -> http://localhost:5000
Connections
  ttl    opn    rt1    rt5    p50    p90
    6     0     0.00  0.00  0.01  0.03
```

Following are the rules which are created. They must be on for the things to work. Also the order of rules is very important. So don't change the order. Change the ngrok url in the rule which I marked in red.

↕ Fetch roles and other information from database	<input checked="" type="checkbox"/>
↕ check whether roles in database match roles in dashboard	<input type="checkbox"/>
↕ Get token for management api	<input type="checkbox"/>
↕ Get ids of all roles in the dashboard	<input type="checkbox"/>
↕ Assign role if not assigned	<input type="checkbox"/>
↕ remove role from user assigned in dashboard if it doesnt match role in database	<input type="checkbox"/>
↕ Fetch roles assigned to user	<input type="checkbox"/>
↕ Fetch permissions from dashboard	<input type="checkbox"/>
↕ delete unnecessary fields from token	<input type="checkbox"/>