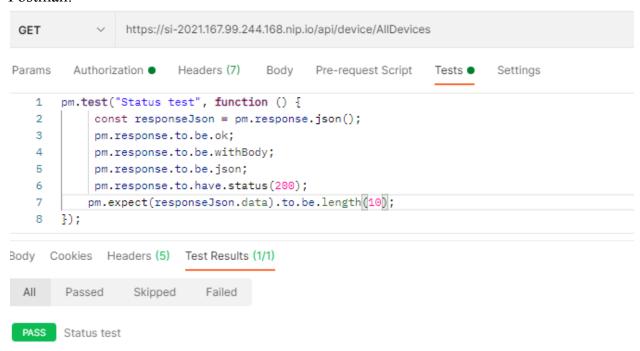
GRUPA 4: TESTOVI SPRINT 1 I SPRINT 2

Testna strategija: kroz alat "Postman" testirati kreirane rute na način da se prvo generišu JWT tokeni za korisnike koji su u bazi podataka i da se istestiraju slučajevi za očekivane izlaze i dobro unijete parametre, te za invalidan JWT token i invalidne parametre (gdje je moguće slati dodatne parametre).

api/device/AllDevices

U ovom testu smo poslali JWT kao Bearer token u polju Authorization, a kao odgovor dobijen je JSON koji navodi sve masine kojim user moze pristupiti. Test napisan kroz Postman:



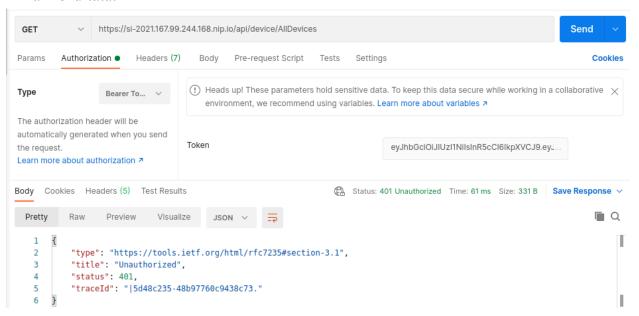
Prikaz rezultata:

```
https://si-2021.167.99.244.168.nip.io/api/device/AllDevices
                                                                                                                          Send
 GET
Params
         Authorization • Headers (7)
                                        Body
                                               Pre-request Script
                                                                           Settings
                                                                                                                               Cookies
Body Cookies Headers (5) Test Results
                                                                            Status: 200 OK Time: 68 ms Size: 3.02 KB Save Response V
  Pretty
                   Preview
                               Visualize
   2
            "data": [
   3
                     "deviceId": 15,
   4
                     "name": "Desktop PC 2",
   5
                    "location": "Sarajevo - Ložionička",
   6
                     "locationLongitude": 18.43,
   8
                    "locationLatitude": 43.5,
   9
                    "status": true,
   10
                     "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
                     "installationCode": "KBIH-2-code",
   11
   12
                    "deviceGroups": [],
   13
                     "errorLogs": [],
                     "userTasks": []
   14
   16
   17
                     "deviceId": 17,
                     "name": "Desktop PC 2",
```

Ukoliko JWT nije ispravan izbacuje se greška Unauthorized. Test napisan kroz Postman:



Prikaz rezultata:

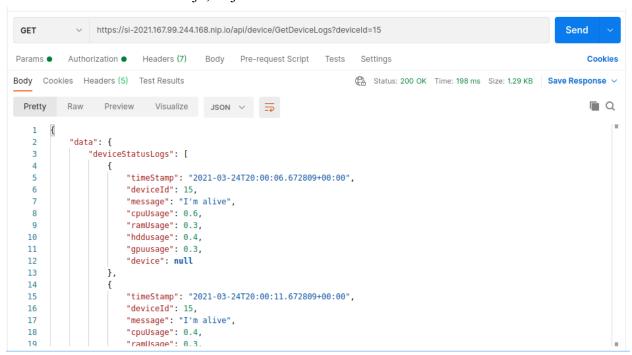


api/device/GetDeviceLogs

• Korisnik pored JWT-a salje i id masine za koju želi da vidi logove, te kao rezultat dobija sve logove te mašine. Test napisan kroz Postman:



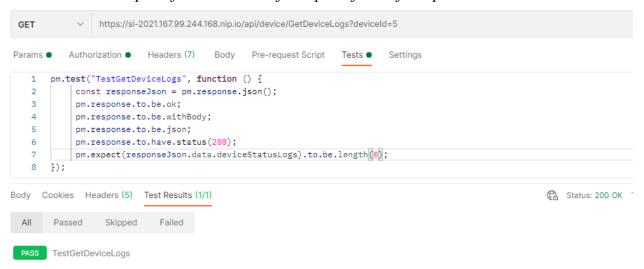
Prikaz rezultata za Id uređaja, koji iznosi 15.



 Pored id-ja moguće je poslati dodatnu informaciju o početnom i krajnjem datumu za pregledanje logova.

```
GET
             v https://si-2021.167.99.244.168.nip.io/api/device/GetDeviceLogs?deviceId=15&startDate=2021-03-23&endDate=2021-
                                                                                                                         Send
           Authorization • Headers (7)
                                          Body Pre-request Script Tests Settings
                                                                                                                              Cookies
Params •
                                                                            Status: 200 OK Time: 66 ms Size: 1.29 KB Save Response V
Body Cookies Headers (5) Test Results
  Pretty
                    Preview
                                                                                                                               ■ Q
            "data": {
                "deviceStatusLogs": [
    3
    4
    5
                         "timeStamp": "2021-03-24T20:00:06.672809+00:00",
    6
                        "deviceId": 15,
                         "message": "I'm alive",
                        "cpuUsage": 0.6,
    8
                        "ramUsage": 0.3,
    9
   10
                        "hddusage": 0.4,
                         "gpuusage": 0.3,
   11
   12
                        "device": null
   13
   14
   15
                        "timeStamp": "2021-03-24T20:00:11.672809+00:00",
                        "deviceId": 15,
   16
   17
                         "message": "I'm alive",
                         "cpuUsage": 0.4,
   18
```

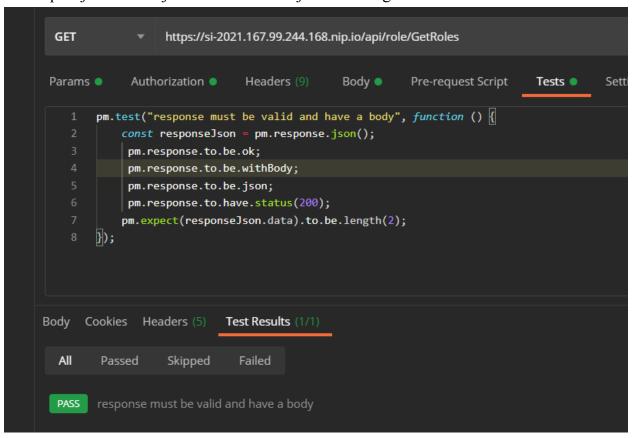
• Ukoliko se pošalje id mašine koja ne postoji dobije se prazan niz.



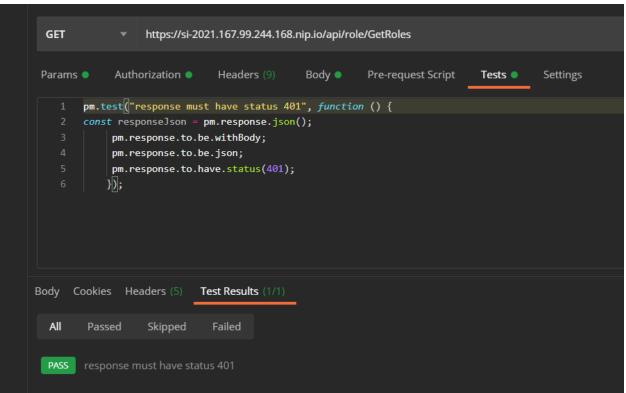
```
https://si-2021.167.99.244.168.nip.io/api/device/GetDeviceLogs?deviceId=123
                                                                                                                             Send
 GET
                                                                              Settings
            Authorization •
                             Headers (7)
                                                   Pre-request Script
Params •
                                                                                                                                  Cookies
Body Cookies Headers (5)
                            Test Results
                                                                               Ch Status: 200 OK Time: 65 ms Size: 524 B
                                                                                                                         Save Response V
  Pretty
                                Visualize
            Raw
                    Preview
    2
             "data": {
    3
                 "deviceStatusLogs": [],
    4
                 "averageGPUUsage": 0.0,
    5
                 "averageCPUUsage": 0.0,
    6
                 "averageRamUsage": 0.0,
                 "averageHDDUsage": 0.0
    7
    8
    9
             "newAccessToken": "eyJhbGci0iJIUzI1NiIsInR5cCI6IkpXVCJ9.
                 eyJpZCI6MiwiZWlhaWwi0iJhYXlpxIdAYXlhLmNvbSIsInJvbGVJZCI6MiwiZ3JvdXBJZCI6bnVsbCwiaWF0IjoxNjE2Nzg2NjEyLCJleHAi0
                 jE2MTY30Dg0MTJ9.StBurjoregL3TJnOmym6PUJKLulMkA7fydI7iCZ6JfU"
   10
```

api/role/getRoles

• U ovom testu smo poslali JWT kao Bearer token u polju Authorization, a kao odgovor dobijen je JSON koji navodi sve role. Test napisan kroz Postman koji provjerava da li je status 200 i da li je dužina odgovora 2.



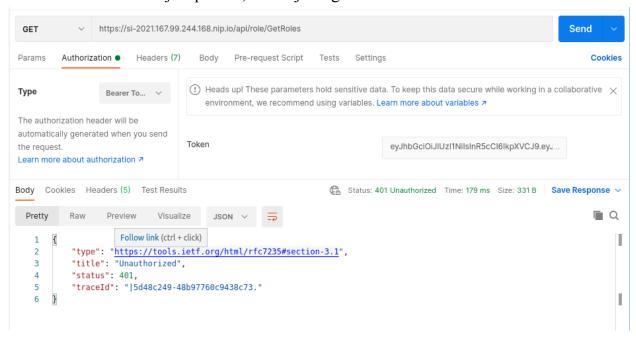
• Kada se pošalje nevalidan token



• Prikaz rezultata:

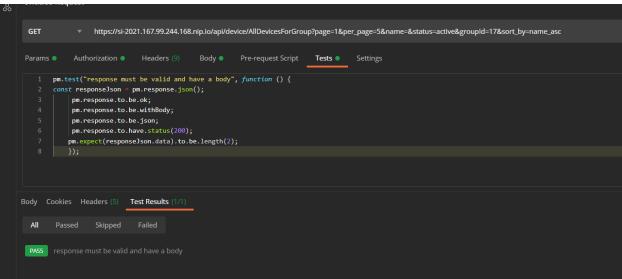
```
GET
                  https://si-2021.167.99.244.168.nip.io/api/role/GetRoles
                                                                                                                          Send
Params
          Authorization •
                          Headers (7)
                                                Pre-request Script
                                                                   Tests
                                                                                                                               Cookies
Body Cookies Headers (5) Test Results
                                                                             Status: 200 OK Time: 193 ms Size: 509 B Save Response V
                                                                                                                                ■ Q
  Pretty
                    Preview
                               Visualize
    1
    2
            "data": [
    3
    4
                     "roleId": 1,
                     "name": "SuperAdmin",
                     "users": []
    6
    8
    q
                     "roleId": 2,
   10
                     "name": "MonitorSuperAdmin",
                     "users": []
   11
   12
   13
            "newAccessToken": "eyJhbGci0iJIUzI1NiIsInR5cCI6IkpXVCJ9.
   14
                eyJpZCI6MiwiZWlhaWwi0iJhYXlpxIdAYXlhLmNvbSIsInJvbGVJZCI6MiwiZ3JvdXBJZCI6bnVsbCwiaWF0IjoxNjE2Nzg10TkzLCJleHAi0
                jE2MTY30Dc30TN9.G812jWtpcsjQr1f0rQZ-Kq_uJMnQs7gkjXvTw5wWtxk"
   15
```

• Ukoliko JWT nije ispravan, izbacuje se greška Unauthorized.

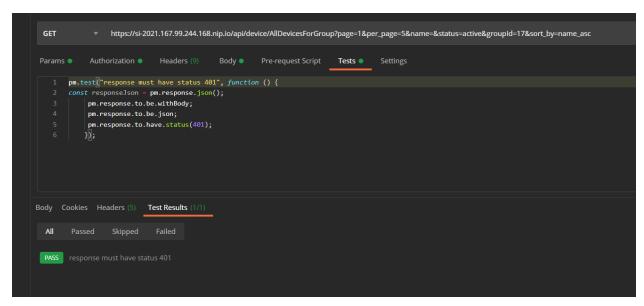


/api/device/AllDevicesForGroup

Test za validan Id grupe



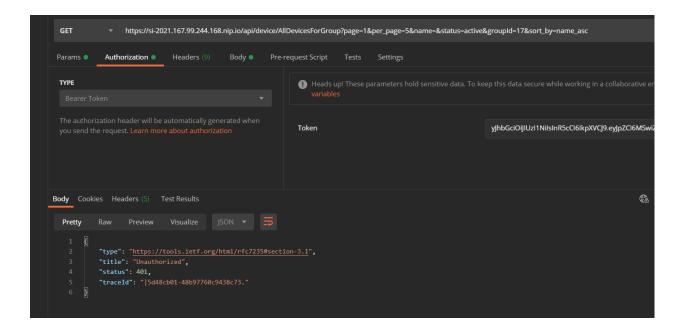
• Test sa nevalidnim tokenom



Prikaz rezultata:

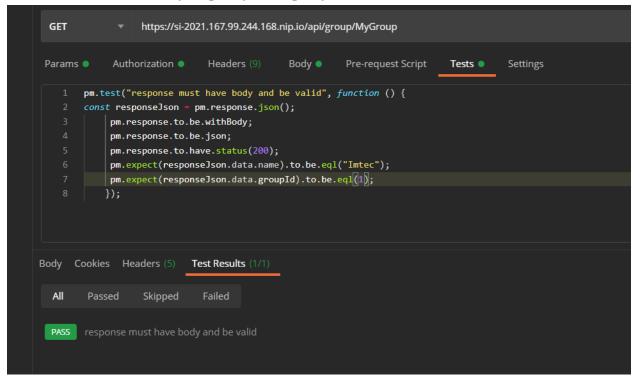
Ukoliko se proslijedi Id grupe za koju korisnik ima pristup, rezultat za unešenog korisnika je sljedeći:

• Ukoliko je token neispravan

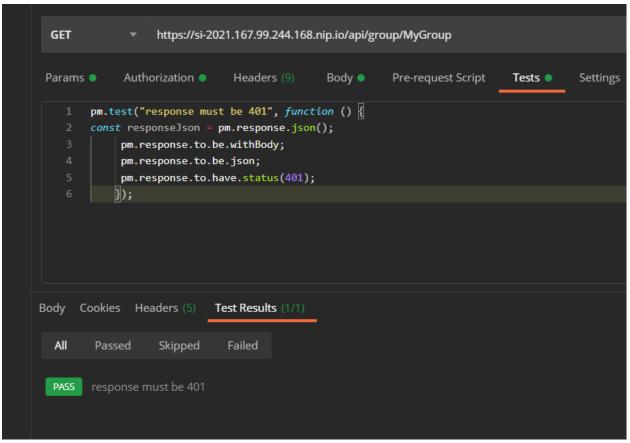


/api/group/MyGroup

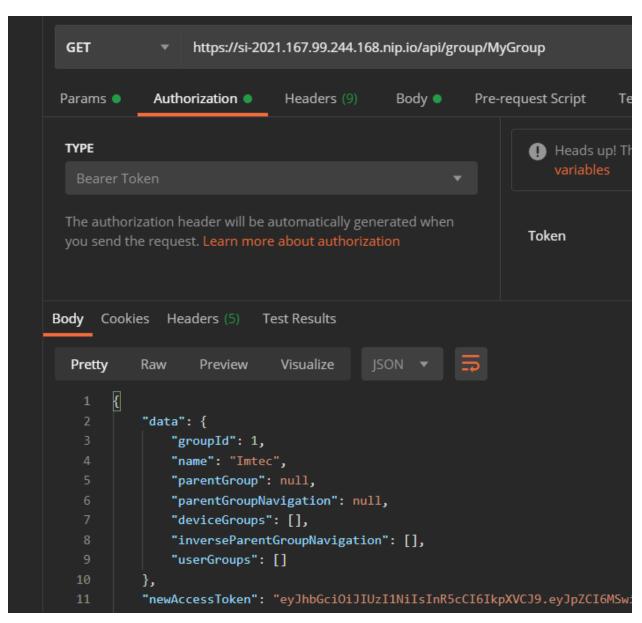
- U ovom testu smo poslali JWT kao Bearer token u polju Authorization, a kao odgovor dobije se grupa, kojoj user pripada, u JSON formatu.
- Test napisan u postmanu: test ispituje situaciju da li je grupa koja je dodijeljena korisniku 1 i da li je u pitanju kompanija Imtec.



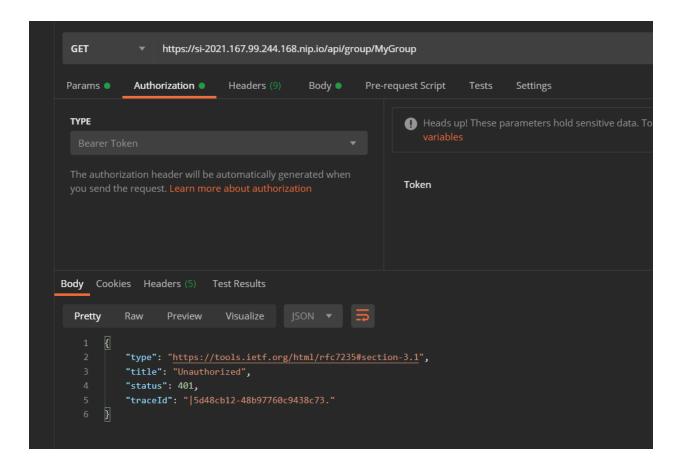
• Test ako je token nevalidan



Prikaz rezultata:



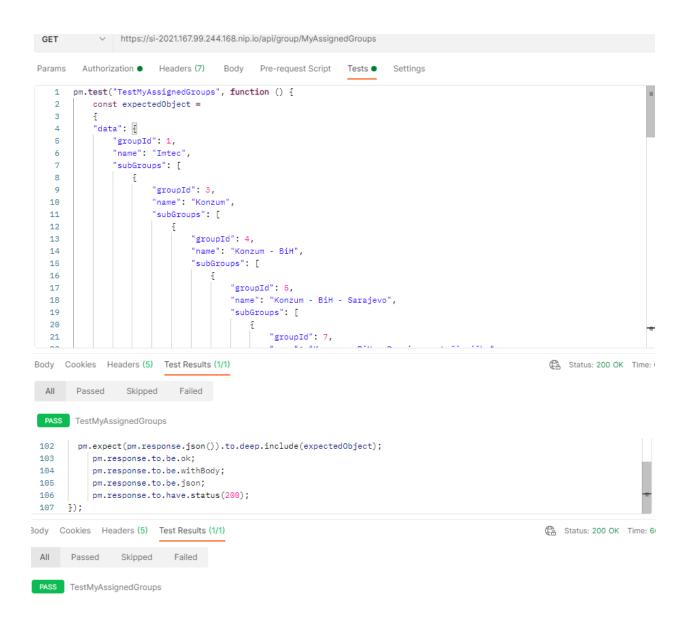
• ukoliko je neispravan token



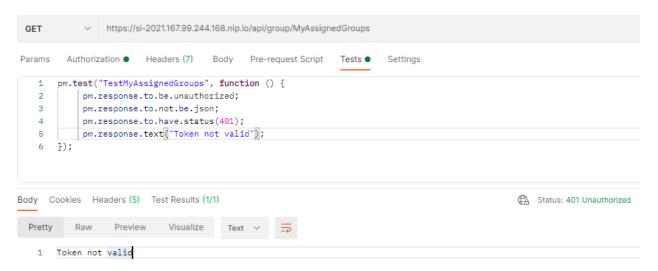
/api/group/MyAssignedGroups

• U ovom testu smo poslali JWT kao Bearer token u polju Authorization. Ukoliko je korisnikova rola Superadmin i ukoliko grupa pripada korisnikovom stablu, vraća se hijerarhija, stablo grupa kao response u JSON formatu.

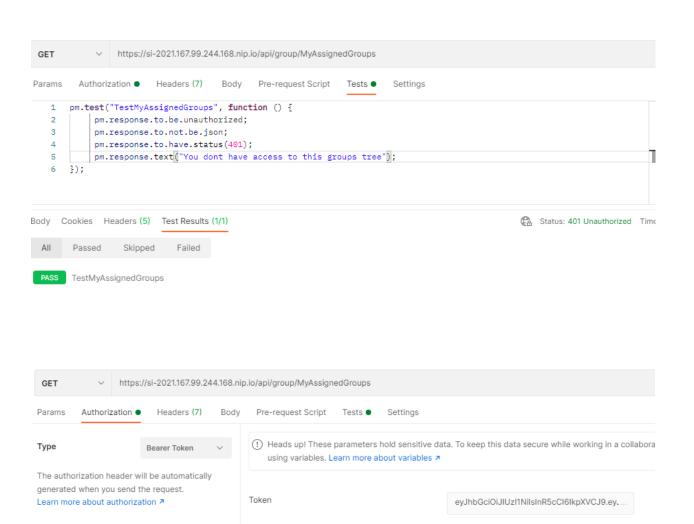
U testu se ispituje da li je status ok, da li je odgovor u obliku JSON-a, te da li je objekat u responsu očekivani objekat.



 ako je token neispravan
 U testu se ispituje da li je status 401, greška Unauthorized i da li je poruka očekivana.



• Ukoliko rola nije superadmin U testu se ispituje da li je status 401, greška Unauthorized i da li je poruka očekivana.



1 You don't have access to this groups tree

Visualize

Text ∨

Body Cookies Headers (5) Test Results (0/1)

Preview

Pretty

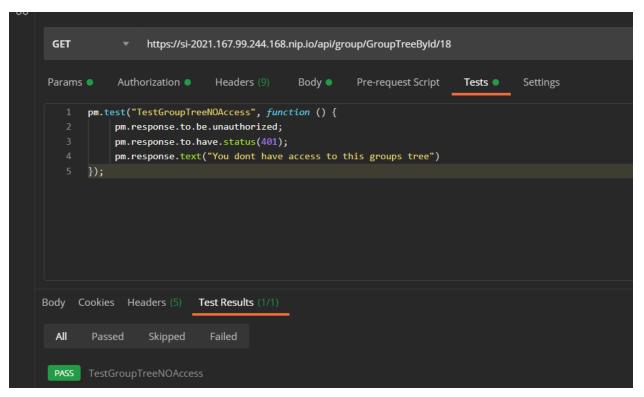
Ca Status: 401 Unauthorized Time: 18

/api/group/GroupTreeById/{groupId}

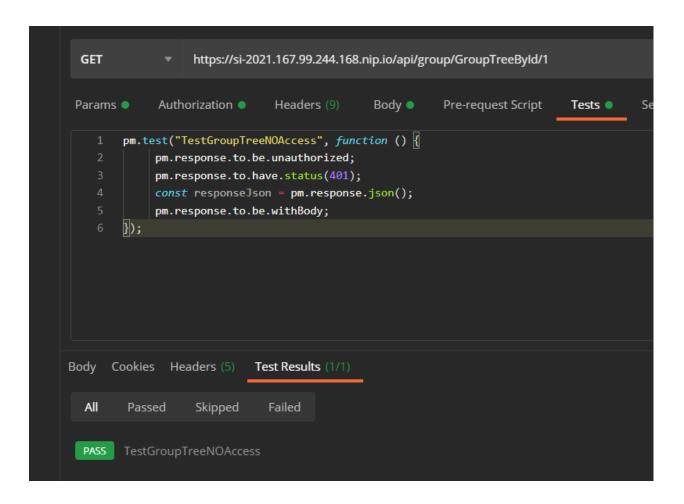
Test pisan u postmanu

Test da output bude ekvivalentan sa očekivanim i status 200:

Test ukoliko je poslan id grupe kojoj korisnik nema pravo pristupa



Test ukoliko je token nevalidan



Prikaz rezultata:

• ispravan groupId, tj. Id grupe za koju korisnik koji je logovan ima pravo pristupa

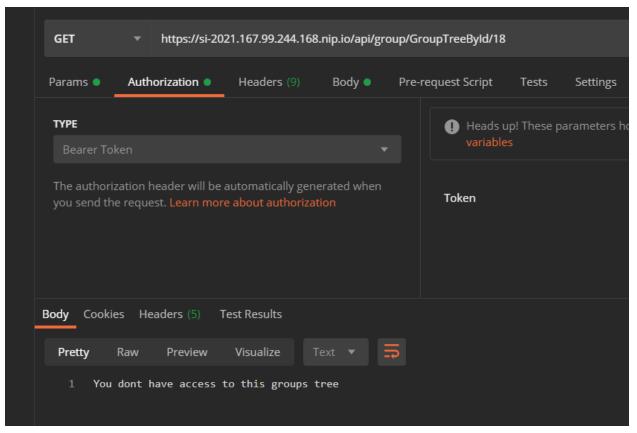
```
https://si-2021.167.99.244.168.nip.io/api/group/GroupTreeByld/1
  GET
                                               Body • Pre-request Script
                                                                                       Settings
Body Cookies Headers (5) Test Results
  Pretty
                "groupId": 1,
                "name": "Imtec",
                "subGroups": [
                        "groupId": 3,
                        "subGroups": [
                                "groupId": 4,
                                "name": "Konzum - BiH",
                                "subGroups": [
                                        "groupId": 5,
                                        "subGroups": [
                                                "groupId": 7,
                                                "name": "Konzum - BiH - Sarajevo - Ložionička",
                                                "subGroups": [],
```

```
https://si-2021.167.99.244.168.nip.io/api/group/GroupTreeByld/1
 GET
              Authorization • Headers (9)
                                               Body •
                                                          Pre-request Script
 Params •
                                                                               Tests
                                                                                        Settings
Body Cookies Headers (5) Test Results
  Pretty
                                "subGroups": [],
                        "devices": []
                        "groupId": 10,
                        "name": "DM",
                         "subGroups": [
                                "groupId": 12,
                                "name": "DM - BiH",
                                 "subGroups": [
                                         "groupId": 14,
                                        "name": "DM - BiH - Mostar",
                                         "subGroups": [
                                                 "groupId": 16,
                                                 "name": "DM - BiH - Mostar - MepasMall",
                                                 "subGroups": [],
```

```
https://si-2021.167.99.244.168.nip.io/api/group/GroupTreeByld/1
      GET
                  Authorization •
                                      Headers (9)
                                                      Body •
                                                                  Pre-request Script
                                                                                                 Settings
    Body Cookies Headers (5) Test Results
      Pretty
                                                        "subGroups": [],
                                                        "devices": []
                                                       "groupId": 17,
                                                       "name": "DM - BiH - Mostar - Braće Fejić",
"subGroups": [],
                                                       "devices": []
                                               "groupId": 15,
                                               "name": "DM - BiH - Bihać",
                                               "subGroups": [],
                                               "devices": []
                                      "groupId": 13,
Q Find and Replace
```

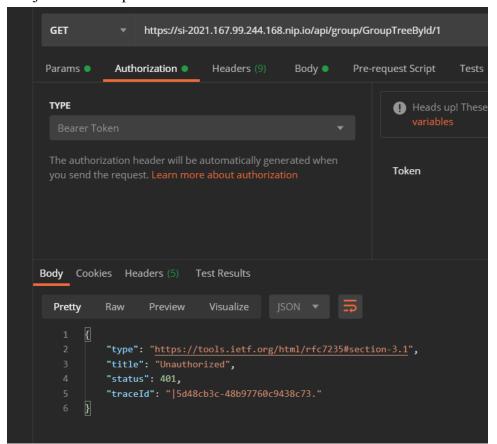
```
https://si-2021.167.99.244.168.nip.io/api/group/GroupTreeByld/1
  GET
              Authorization •
                                  Headers (9)
                                                  Body •
                                                              Pre-request Script
 Params •
                                                                                   Tests
                                                                                            Setti
Body
       Cookies Headers (5)
                              Test Results
             Raw
                                 Visualize
  Pretty
                     Preview
                                           "groupId": 15,
                                           "name": "DM - BiH - Bihać",
                                           "subGroups": [],
                                           "devices": []
                                  ],
                                  "devices": []
                                  "groupId": 13,
                                  "name": "DM - Srbija",
                                  "subGroups": [],
                                  "devices": []
                          "devices": []
                 ],
                 "devices": []
             },
             "newAccessToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6MSwiZW1haWwiOi
```

• ova ruta za Id grupe za koju logovani korisnik nema pravo pristupa:



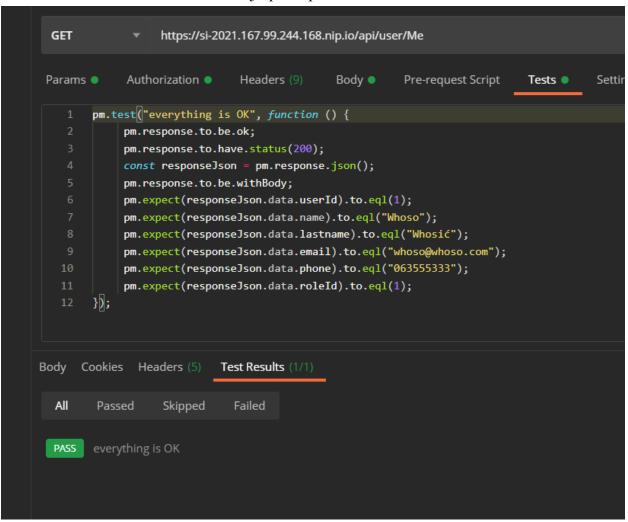
Što znaci da je ovo ok urađeno.

• ako je token neispravan

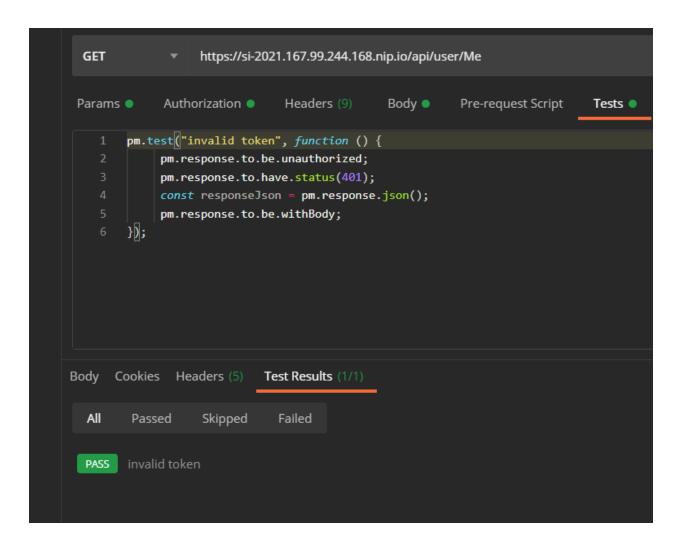


/api/user/Me

• Test za validan token se trebaju poklopiti svi uslovi u testu



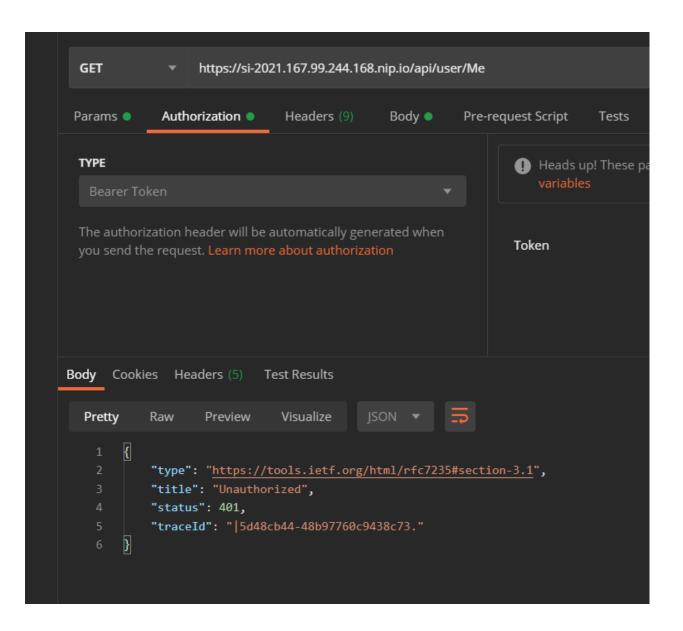
• Test za nevalidan token



Prikaz rezultata:

```
https://si-2021.167.99.244.168.nip.io/api/user/Me
  GET
 Params •
              Authorization •
                                 Headers (9)
                                                 Body •
                                                            Pre-request Script
                                                                                Tests
                                                                                          Set
Body Cookies Headers (5)
                             Test Results
            Raw
                                Visualize
  Pretty
                     Preview
            "data": {
                 "userId": 1,
                 "name": "Whoso",
                 "lastname": "Whosić",
                "email": "whoso@whoso.com",
                "phone": "063555333",
                "roleId": 1,
                "password": "$2b$12$.Up1nAiTY0PSBfYvypsTzuIZo2IAiFMKreBhQYleOwRveSTjBzIe6
                 "qrSecret": null,
                 "role": null,
                 "reports": [],
                 "userGroups": [],
                 "userTasks": []
            "newAccessToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6MSwiZW1haWwiO:
```

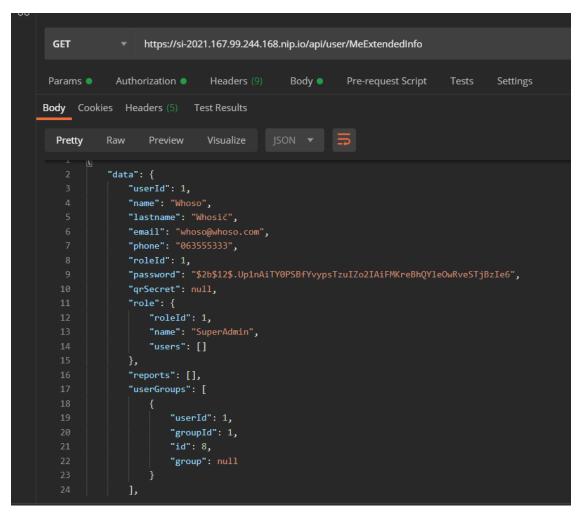
• Ako je token neispravan



/api/user/MeExtendedInfo

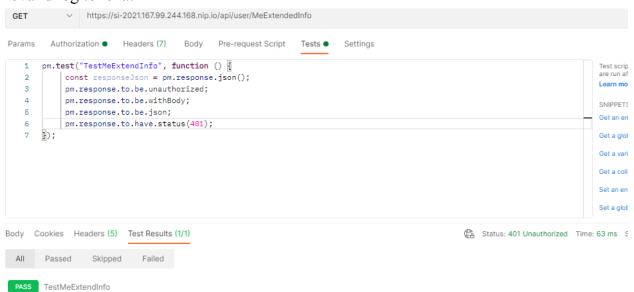
• Test provjerava poznate podatke za user-a, te očekivani status 200 OK. Također, provjerava se da li je response u očekivanom JSON formatu.

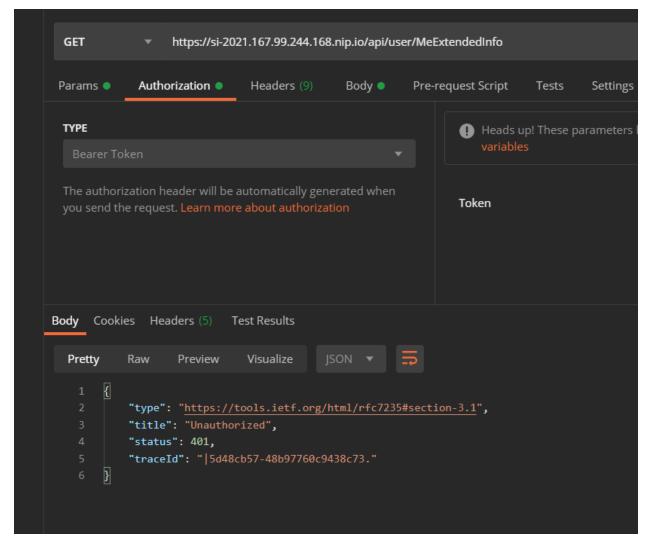
```
https://si-2021.167.99.244.168.nip.io/api/user/MeExtendedInfo
Params
          Authorization • Headers (7) Body
                                              Pre-request Script
                                                                           Settings
        pm.test("TestMeExtendInfo", function () {
            const responseJson = pm.response.json();
   3
             pm.response.to.be.ok;
             pm.response.to.be.withBody;
    5
             pm.response.to.be.json;
    6
             pm.response.to.have.status(200);
             pm.expect(responseJson.data.userGroups[0].groupId).is.to.equal(1);
    8
             pm.expect(responseJson.data.roleId).is.to.equal(1);
    9
       });
Body Cookies Headers (5) Test Results (1/1)
                                                                                                              Status: 200 OK Tir
```



```
24 ],
25 "userTasks": []
26 },
```

• ako je token neispravan Test provjerava da li je status 401(Unauthorized) kao što je i očekivano u slučaju nevalidnog tokena.





POST: /api/device/CreateDevice

• Stanje prije post requesta

```
"deviceId": 17,
  "name": "Desktop PC 2",
  "location": "Sarajevo - BBI",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "KBIH-4-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
  "deviceId": 16,
  "name": "Desktop PC 1",
  "location": "Sarajevo - BBI",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "KBIH-3-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
  "deviceId": 18,
  "name": "Desktop PC 1",
  "location": "Sarajevo - SCC",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:21.672809+00:00",
  "installationCode": "KBIH-5-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
},
  "deviceId": 19,
  "name": "Desktop PC 2",
  "location": "Sarajevo - SCC",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "KBIH-6-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
  "deviceId": 20,
  "name": "Desktop PC 1",
```

```
"location": "Mostar - Mepas Mall",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "DMBIH-1-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
  "deviceId": 21,
  "name": "Desktop PC 2",
  "location": "Mostar - Mepas Mall",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "DMBIH-2-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
  "deviceId": 22,
  "name": "Desktop PC 1",
  "location": "Mostar - Braće Fejić",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "DMBIH-3-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
},
  "deviceId": 23,
  "name": "Desktop PC 2",
  "location": "Mostar - Braće Fejić",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "DMBIH-4-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
  "deviceId": 14,
  "name": "Desktop PC 1",
  "location": "Sarajevo - Ložionička",
  "locationLongitude": 18.43,
```

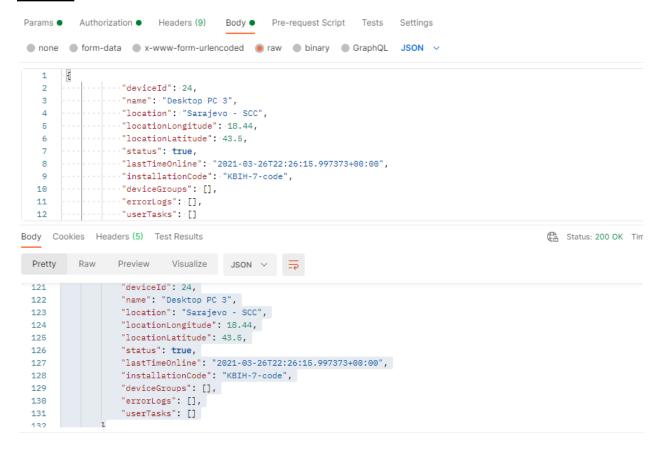
```
"locationLatitude": 43.5,
    "status": true,
    "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
    "installationCode": "KBIH-1-code",
    "deviceGroups": [],
    "errorLogs": [],
    "userTasks": []
    }
    ],
    "newAccessToken":
"eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6MSwiZW1haWwiOiJ3aG9zb0B3aG9zby5jb20iLCJyb2xlSWQi
OjEsImdyb3VwSWQiOjEsImlhdCI6MTYxNjc5MDUzNywiZXhwIjoxNjE2NzkyMzM3fQ.iY0qG4HMlpWayQLMID
KWLt4iO3p_NEa7tj7t7PdE390"
}
```

Slanje post requesta

POST

https://si-2021.167.99.244.168.nip.io/api/device/CreateDevice?groupId=1

Rezultat



```
{
"data": [
    {
       "deviceId": 15,
       "name": "Desktop PC 2",
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       "locationLongitude": 18.43,
       "locationLatitude": 43.5,
       "status": true,
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       "installationCode": "KBIH-2-code",
       "deviceGroups": [],
       "errorLogs": [],
       "userTasks": []
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       "location": "Sarajevo - BBI",
       "locationLongitude": 18.43,
       "locationLatitude": 43.5,
       "status": true,
       "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
       "installationCode": "KBIH-4-code",
       "deviceGroups": [],
       "errorLogs": [],
       "userTasks": []
    },
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       "name": "Desktop PC 1",
       "location": "Sarajevo - BBI",
       "locationLongitude": 18.43,
       "locationLatitude": 43.5,
       "status": true,
       "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
       "installationCode": "KBIH-3-code",
       "deviceGroups": [],
       "errorLogs": [],
       "userTasks": []
    },
    {
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"deviceId": 18,
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  "location": "Sarajevo - SCC",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:21.672809+00:00",
  "installationCode": "KBIH-5-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
},
  "deviceId": 19,
  "name": "Desktop PC 2",
  "location": "Sarajevo - SCC",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "KBIH-6-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
},
  "deviceId": 20,
  "name": "Desktop PC 1",
  "location": "Mostar - Mepas Mall",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "DMBIH-1-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
},
  "deviceId": 21,
  "name": "Desktop PC 2",
  "location": "Mostar - Mepas Mall",
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"locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "DMBIH-2-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
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  "name": "Desktop PC 1",
  "location": "Mostar - Braće Fejić",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
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  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
},
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  "name": "Desktop PC 2",
  "location": "Mostar - Braće Fejić",
  "locationLongitude": 18.43,
  "locationLatitude": 43.5,
  "status": true,
  "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
  "installationCode": "DMBIH-4-code",
  "deviceGroups": [],
  "errorLogs": [],
  "userTasks": []
},
  "deviceId": 24,
  "name": "Desktop PC 3",
  "location": "Sarajevo - SCC",
  "locationLongitude": 18.44,
  "locationLatitude": 43.5,
  "status": true,
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      "deviceGroups": [],
      "errorLogs": [],
      "userTasks": []
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      "location": "Sarajevo - Ložionička",
      "locationLongitude": 18.43,
      "locationLatitude": 43.5,
      "status": true,
      "lastTimeOnline": "2021-03-24T20:00:26.672809+00:00",
      "installationCode": "KBIH-1-code",
      "deviceGroups": [],
      "errorLogs": [],
      "userTasks": []
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"eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6MSwiZW1haWwiOiJ3aG9zb0B3aG9zby5jb20iLCJyb2xISWQiOjEsImdy
b3VwSWQiOjEsImlhdCl6MTYxNjc5MDUzNywiZXhwIjoxNjE2NzkyMzM3fQ.iY0qG4HMlpWayQLMlDKWLt4iO3p NEa7tj
7t7PdE390"
}
```

Slanje requesta u slučaju nevalidnog tokena

