

Quality of Life | Kvaliteta života

Work | Na poslu

Kako stvoriti raj za rad na daljinu u Zadru?

- Co-working
- Crowd-funding / start-up
- Digital nomads | Digitalni nomadi
 - co-housing
 - health services
- Working from home | Rad od kuće

Everyday | Svakodnevno

Kako stvoriti raj za svakodnevni život u Zadru?

- Sensors (weather, air quality, parking, etc.) | Senzori
- Co-living | Suživot

Ove godine, na raspolaganju imate pristup API-u za senzore za pariranje te meteorološke postaje koje su nam ustupili kolege iz Inovativni Zadar.

Dostupni APPs

1. zadar-parking-libelium-0001 - (parking sensors)
2. zadar-zhaga – (weather stations)

Pristup API-u

Login

URL: https://users.thynkr.io/api/user/login/{username}/
Header: 'Authorization': 'Basic ' + btoa("{username}:{password}")
Format: btoa - base-64 encoded ASCII

Odgovor:

```
{
  "username": "admin@thynkr.io",
  "firstName": "Admin",
  "lastName": "Thynkr",
  "lastLogin": "2017-06-09T12:34:45.0353207+02:00",
  "loginToken": "24a79aba-5411-4234-8de6-9da9196aeeb0",
  "providerId": 1
}
```

Svi sljedeći upiti:

```
{
  'CURRENT_SESSION_USER': {loginToken},
  'provider': {provider_key}
}
```

Provider_key: 'zadar-parking-libelium-0001' ili 'zadar-zhaga'

Dostupni upiti:

- **Dohvati zadnje dostupne podatke**
<https://users.thynkr.io/api/device/{deviceUniqueId}/last>
- **Dohvati podatke od-do određenog datuma**
<https://users.thynkr.io/api/device/{deviceUniqueId}/data?from={yyyy-MM-dd+HH:mm:ss}&to={yyyy-MM-dd+HH:mm:ss}>
- **Dohvati popis senyora na APP-u**
<https://users.thynkr.io/api/device/get>

Dostupni senzori:

APP: zadar-parking-libelium-0001

5 senzora za parkiranje

```
deviceUnique :      0004A30B00E9171B
isParkAvailable :   true
payload :           AQwAEg0lAAAAANY=
creatad :           2020-10-03T22:59:18.893
```

```
deviceUnique :      0004A30B00EAD1AD
isParkAvailable :   true
payload :           AecAEQgvAAAAAMo=
creatad :           2020-10-03T22:56:56.187
```

```
deviceUnique :      0004A30B00EB680D
isParkAvailable :   true
payload :           AT8AEgkhAAAAANc=
creatad :           2020-10-03T22:40:51.467
```

```
deviceUnique :      0004A30B00EB4175
isParkAvailable :   true
payload :           ARgAEwgqAAAAANc=
creatad :           2020-10-03T22:43:48.433
```

```
deviceUnique :      0004A30B00E8A3D6
isParkAvailable :   true
payload :           EUEAEworAAAAANU=
creatad :           2020-10-03T23:47:53.71
```

APP: zadar-zhaga

3 meteorološke postaje

```
deviceUnique :    0101010101010102
temperature :    10.49
humidity :       86.87999
co2 :           422
ch2o :          20
o3 :            20
noise :         38.7
pressure :      100052
voc :           320602
creatad :       2020-09-28T08:20:55.737
time :          1601273220
```

```
deviceUnique :    0101010101010103
temperature :    21.21999
humidity :       53.02
co2 :           400
ch2o :          36
o3 :            101
noise :         31.92
pressure :      100058
voc :           195528
pm1 :           0
pm25 :          1
pm10 :          1
creatad :       2020-09-28T08:20:56.08
time :          1601273520
```

```
deviceUnique :    0101010101010104
temperature :    21.76
humidity :       51.57
noise :         30.19999
pressure :      100321
voc :           168260
pm1 :           0
pm25 :          1
pm10 :          1
creatad :       2020-10-12T14:10:57.473
time :          1602502979
gas1 :          0.57699           (NH3)
gas2 :          0.11899           (NO2)
gas3 :          0.08899           (HCL)
gas4 :          0.41999           (H2S)
```

Primjer

Programski jezik: JavaScript

```
//Retrieve Sensor Data
async function sensorData(url = '', provider_key = '', currentToken = '') {
  // Default options are marked with *
  const response = await fetch(url, {
    method: 'GET',
    cache: 'no-cache',
    headers: {
      'Content-Type': 'application/json',
      'CURRENT_SESSION_USER':currentToken,
      'provider':provider_key
    }
  });

  if (!response.ok) {
    throw Error(response.statusText);
  } else {
    return response.json();
  }
}

// API login function
async function loginAPI() {
  // Default options are marked with *
  const response = await
fetch('https://users.thynkr.io/api/user/login/hackathonUser/', {
  method: 'POST',
  cache: 'no-cache',
  headers: {
    'Content-Type': 'application/json',
    'Authorization': 'Basic ' + btoa("hackathonUser:HackathonUser*!") //
base-64 encoded ASCII
  }
});

  if (!response.ok) {
    throw Error(response.statusText);
  } else {
    return response.json();
  }
}

loginAPI()
  .then(data => {

    console.log(data);
  });
```

```
    var currentToken = data.loginToken; // This is important login token,
we use it for every other request

    //Available APPs:
    //zadar-parking-libelium-0001 (parking)
    //zadar-zhaga (okoliš)

    var provider_key = "zadar-zhaga";

    //Example: Retrieve sensor last Recordset
    sensorData('https://users.thynkr.io/api/device/0101010101010102/last',
'zadar-zhaga', currentToken)
        .then(data => {
            console.log(data);
        }).catch((error) => {
            console.error('Error:', error);
        });

    //Example: Retrieve sensor Data in selected datetime period

sensorData('https://users.thynkr.io/api/device/0101010101010102/data?from=2
020-09-01+00:00:00&to=2020-09-02+00:00:00', 'zadar-zhaga', currentToken)
        .then(data => {
            console.log(data);
        }).catch((error) => {
            console.error('Error:', error);
        });

    //Example: Get list of all sensors on APP

    sensorData('https://users.thynkr.io/api/device/get', provider_key,
currentToken)
        .then(data => {
            console.log(data);
        }).catch((error) => {
            console.error('Error:', error);
        });

    }).catch((error) => {
        console.error('Error:', error);
    });
```

Još jedan zanimljivi set podataka je od Nasada sa popisom bilja i drveća na par lokacija u Zadru.

Dostupni APIs

- <http://ugis-nasadizadar.azurewebsites.net/api/gis/Layers>
- <http://ugis-nasadizadar.azurewebsites.net/api/gis/Features/Perennials>
- <http://ugis-nasadizadar.azurewebsites.net/api/gis/Features/Grasslands>
- <http://ugis-nasadizadar.azurewebsites.net/api/gis/Features/Hedges>
- <http://ugis-nasadizadar.azurewebsites.net/api/gis/Features/Shrubs>
- <http://ugis-nasadizadar.azurewebsites.net/api/gis/Features/Trees>

Kako bi izbjegli CORS ograničenja, predlažemo da ove podatke prvo dohvatite i pospremite lokalno na svoje računalo ili unutar svoje aplikacije.

Primjer

Programski jezik: JavaScript

```
//Retrieve Weather Data
async function retrieveData(url = '') {
  const response = await fetch(url, {
    method: 'GET',
    headers: {
      'Content-Type': 'application/json'
    },
  });
}

if (!response.ok) {
  throw Error(response.statusText);
} else {
  return response.json();
}

}

//Example: Retrieve Layers data
retrieveData(<your local api address>).then(data => {
  console.log(data);
}).catch((error) => {
  console.error('Error:', error);
});
```