

SNEK

Social Network for Engineers and Knowledge

Aichner Christian, Kleber Florian, Pinterics David, Schett Nico

19. Juni 2020

Höhere technische Bundeslehr- und Versuchsanstalt Villach

Agenda



- 1** SNEK Motivation
- 2** Projektmanagement
- 3** UI
- 4** Datenmanagement
- 5** Intel/Client
- 6** Backend



SNEK Motivation

„Unser Ziel ist es eine Plattform zu schaffen, die Techniker dazu anregt ein Portfolio zu entwickeln.“ - Mission Statement

Projektmanagement

Ausschnitte:

- Home office
- Arbeitsstunden
- Burndowncharts

Abb. 1: Quelle: GitHub, 2016

github.com/snek-at

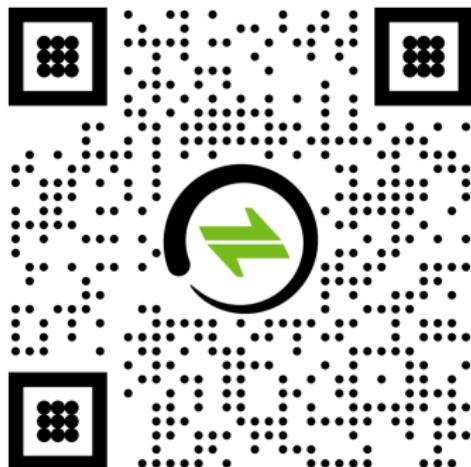


Abb. 2:

Quelle:
QRCode Monkey, Air Quality Monitoring
Station, 2018

Meetings

- Daily Scrum
- Future Meetings

Plattformen

- TeamSpeak
- Telegramm

Anderes

- Audio Bots

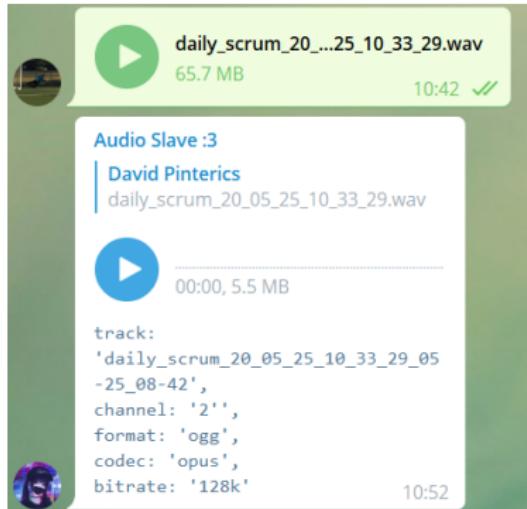


Abb. 3:

Quelle:

SNEK Meetings, Telegram group

Ausschnitte:

- Home office
- **Arbeitsstunden**
- Burndowncharts

Abb. 4: Quelle: GitHub, 2016

github.com/snek-at

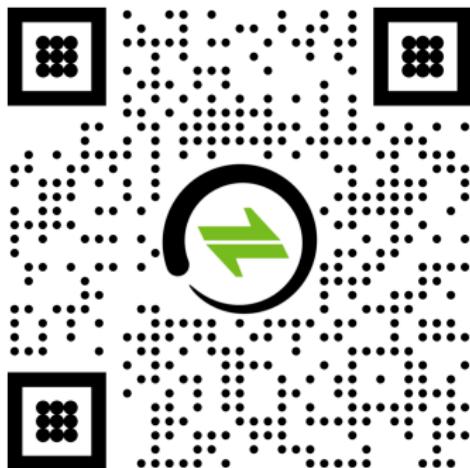


Abb. 5:

Quelle:
QRCode Monkey, Air Quality Monitoring
Station, 2018

Schulische Arbeitsstunden

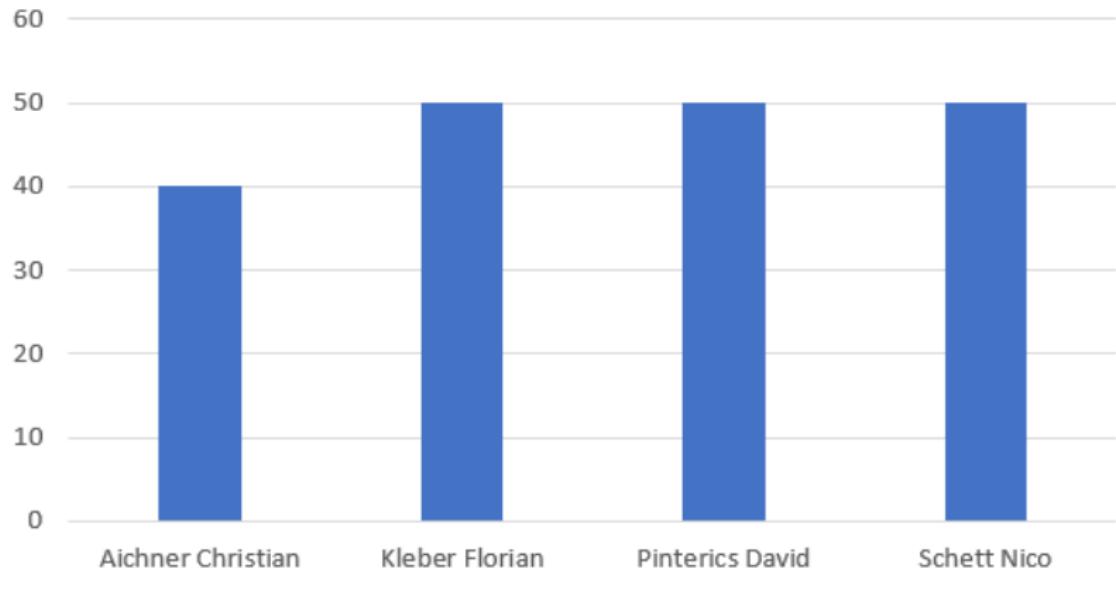


Abb. 6: Arbeitsaufteilung
Quelle: Pinterics David

Ausschnitte:

- Home office
- Arbeitsstunden
- **Burndowncharts**

Abb. 7: Quelle: GitHub, 2016

github.com/snek-at

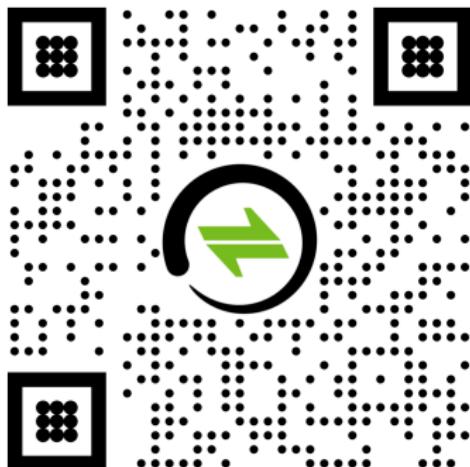


Abb. 8:

Quelle:
QRCode Monkey, Air Quality Monitoring
Station, 2018

Burndowncharts

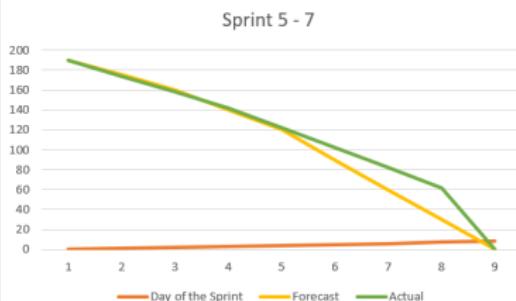


Abb. 9: Sprint 5-7 Resultate

Quelle: Pinterics David

UI

Ausschnitte:

- Settings
- Lazy Loading
- Contribution Types
- Week Activities

Abb. 10: Quelle: GitHub, 2016

github.com/snek-at

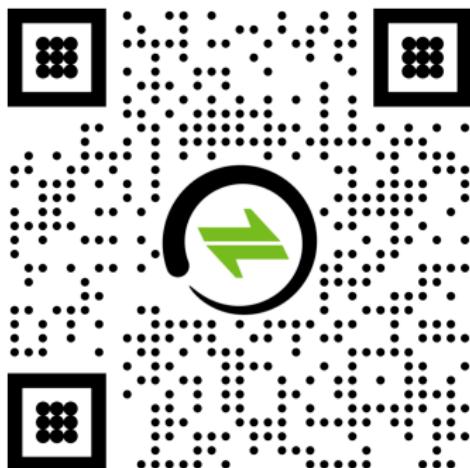


Abb. 11:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018



Settings

Save

Profile

Customization

Account

Connections

Blocked users

Billing

Security

Profile



Your full name

David

Pinterics

Public email

david.pinterics@gmail.com

Display email on profile

Your workplace

Company

You can @mention your company anywhere on SNEK

Display company on profile

Abb. 12: SNEK User Settings

Quelle: Aichner Christian



Ausschnitte:

- Settings
- **Lazy Loading**
- Contribution Types
- Week Activities

Abb. 13: Quelle: GitHub, 2016

github.com/snek-at

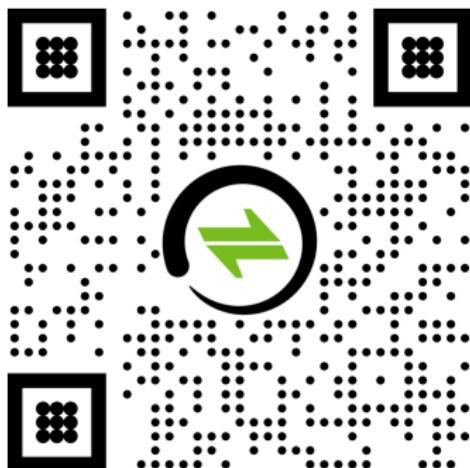


Abb. 14:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018

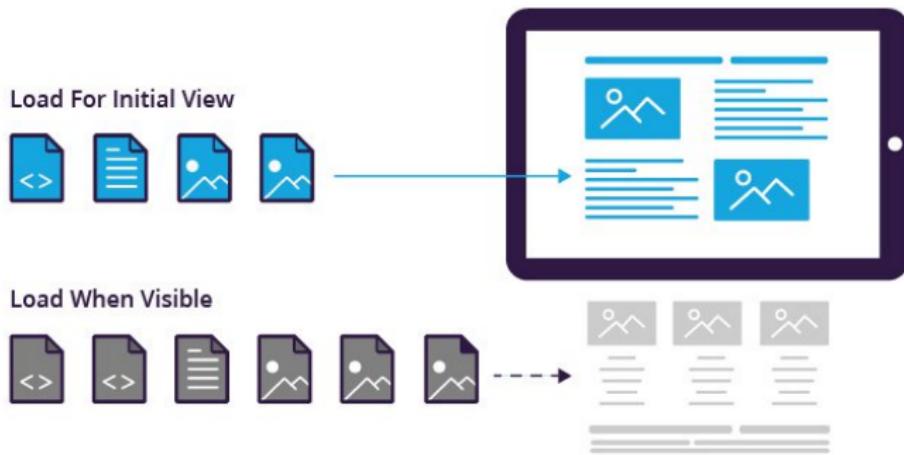


Abb. 15: Lazy Loading Konzept

Quelle: <https://www.imperva.com/learn/performance/lazy-loading/>



Ausschnitte:

- Settings
- Lazy Loading
- **Contribution Types**
- Week Activities

Abb. 16: Quelle: GitHub, 2016

github.com/snek-at

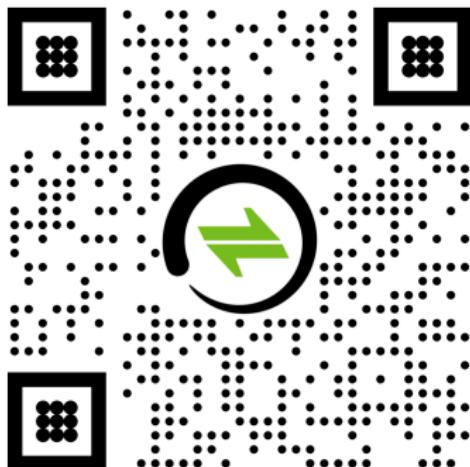


Abb. 17:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018

Contribution Types

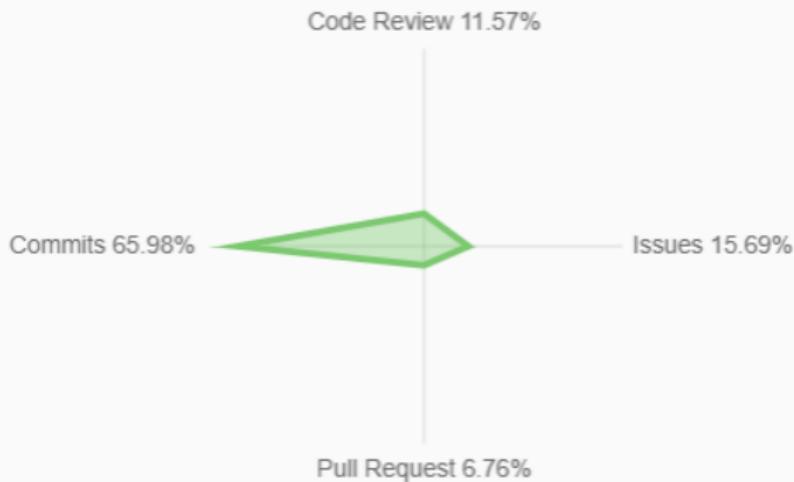


Abb. 18: **Contribution Types**

Quelle: Aichner Christian



Ausschnitte:

- Settings
- Lazy Loading
- Contribution Types
- Week Activities

Abb. 19: Quelle: GitHub, 2016

github.com/snek-at

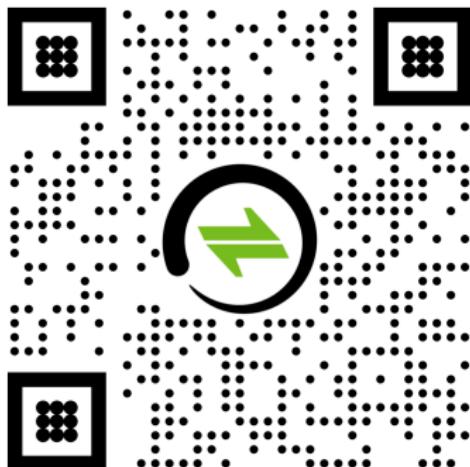


Abb. 20:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018

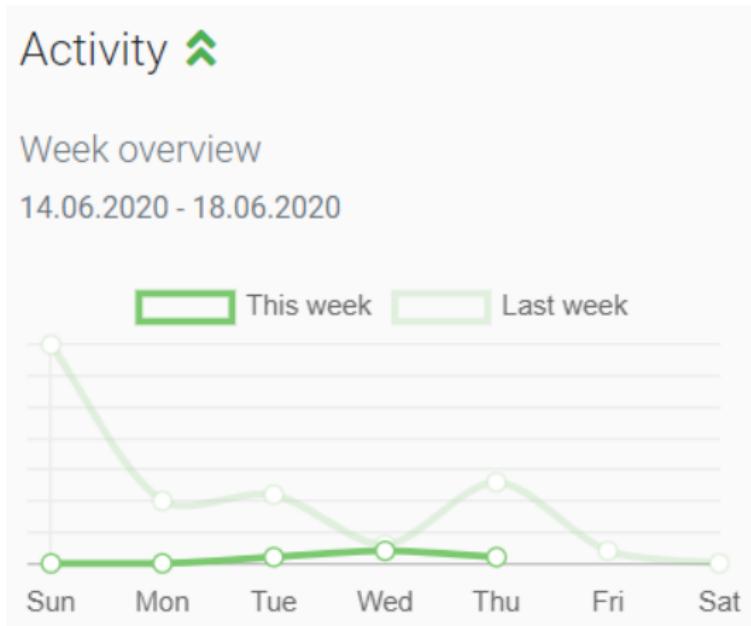


Abb. 21: Week Activities

Quelle: Aichner Christian

Datenmanagement

Ausschnitte:

- Talks
- Profile Picture

Abb. 22: Quelle: GitHub, 2016

github.com/snek-at

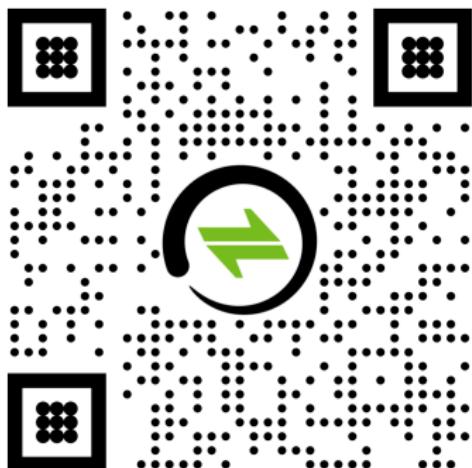


Abb. 23:

Quelle:
QRCode Monkey, Air Quality Monitoring
Station, 2018

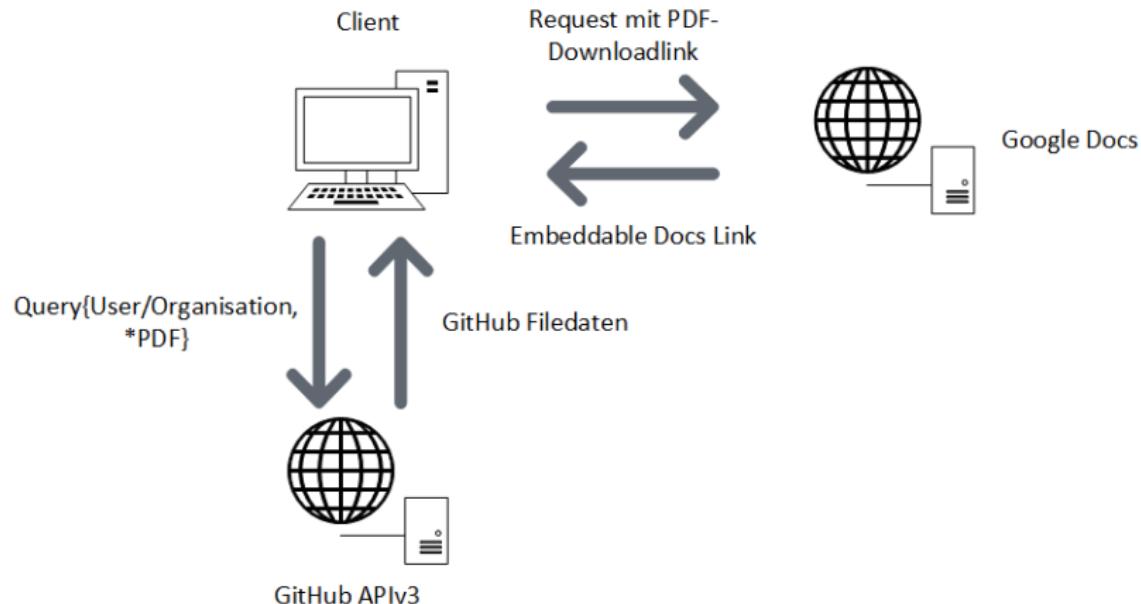


Abb. 24: **GitHub Talks Konzept**

Quelle: Pinterics David



Upload


Click here or drop a file to upload!

Öffnen

Dieser PC > Downloads

Organisieren ▾ Neuer Ordner

Name	Änderungsdatum	Typ	Große
Anfang der Woche (1)			
Telegram Desktop	16.06.2020 11:59	Dateiordner	
Letzte Woche (6)			
Owner Manual - Sports Series - Europ...	12.06.2020 22:30	Microsoft Edge PD...	9 044 KB
Owner Manual - Sports Series - Europ...	10.06.2020 14:30	Microsoft Edge PD...	9 044 KB
Owner Manual - Sports Series - Europ...	10.06.2020 14:19	Microsoft Edge PD...	9 044 KB
600LT Product Brochure.pdf	10.06.2020 14:19	Microsoft Edge PD...	5 261 KB
McLaren P1GTR - 12Q0143RP01 - Boo...	10.06.2020 14:18	Microsoft Edge PD...	6 424 KB
new_mclaren_gtproduct_brochure_en...	10.06.2020 14:18	Microsoft Edge PD...	4 682 KB
Anfang des Monats (2)			
Sprintdokumentation_20200704.pdf	04.06.2020 22:47	Microsoft Edge PD...	1 633 KB

Dateiname: PDF File (*.pdf)

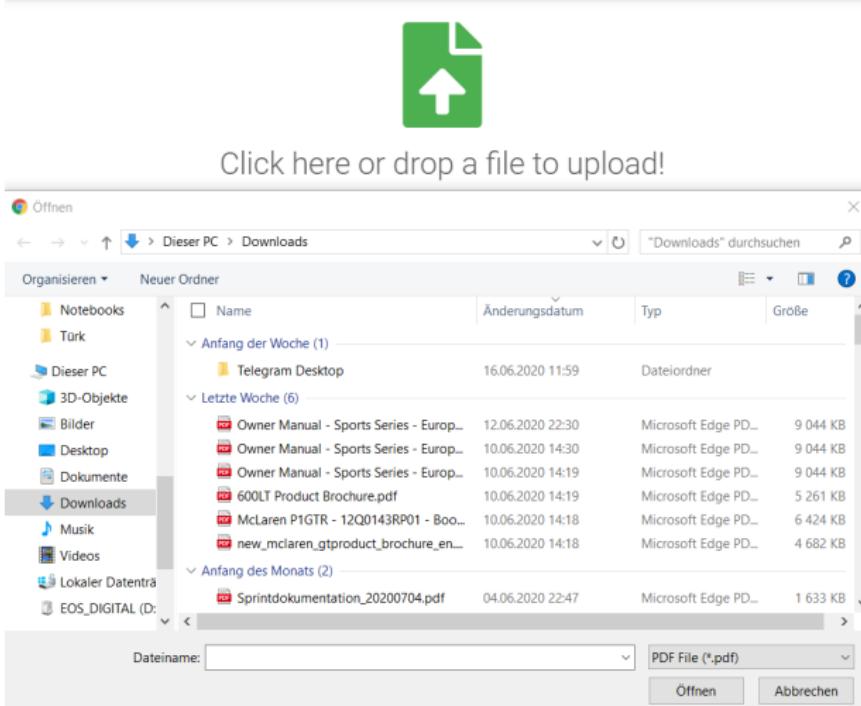


Abb. 25: Talk Upload Modul

Quelle: Pinterics David

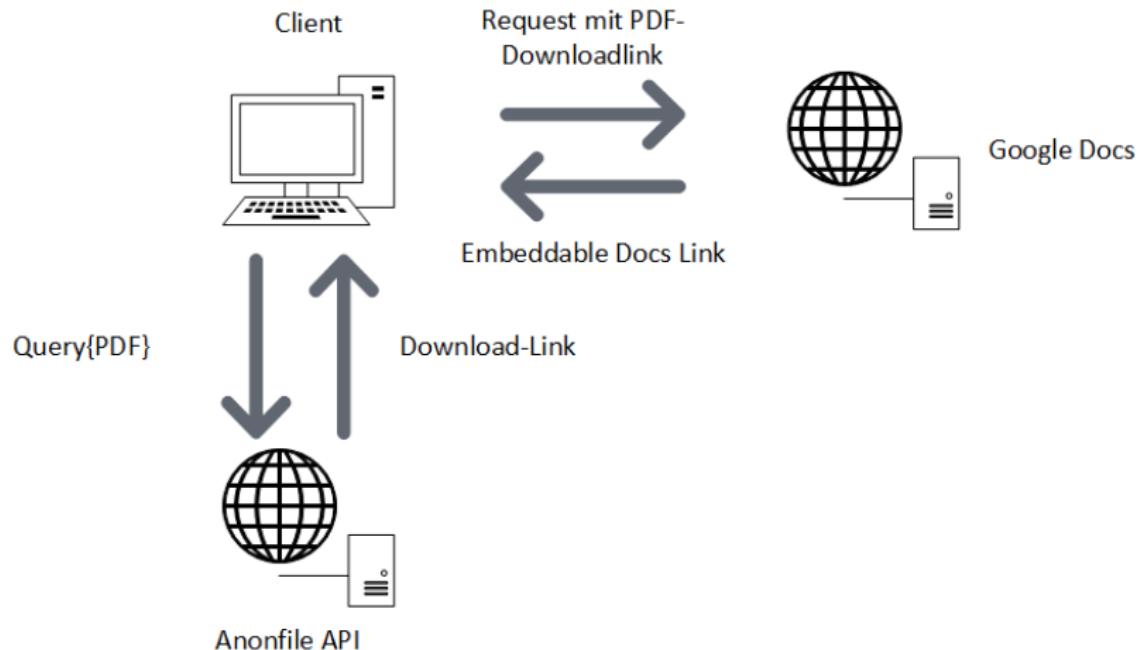


Abb. 26: **Talk Upload Konzept**

Quelle: Pinterics David

[Overview](#)[Projects 25](#)[Education](#)[Posts 0](#)[Papers 0](#)[Talks 2](#)

Talks

[Upload](#)

PP_21022020_SNEK.pdf



Tle5012b.pdf



17 likes

published on 6/18/2020

download



Owned by snek-at

17 likes

published on 6/18/2020

download



Owned by schetttn

Abb. 27: Talks Tab
Quelle: Pinterics David

Ausschnitte:

- Talks
- Profile Picture

Abb. 28: Quelle: GitHub, 2016

github.com/snek-at

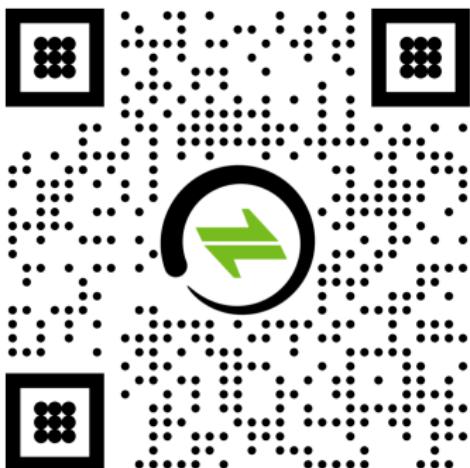


Abb. 29:

Quelle:
QRCode Monkey, Air Quality Monitoring
Station, 2018



Image Editor

Save



Abb. 30: Image Editor

Quelle: Pinterics David

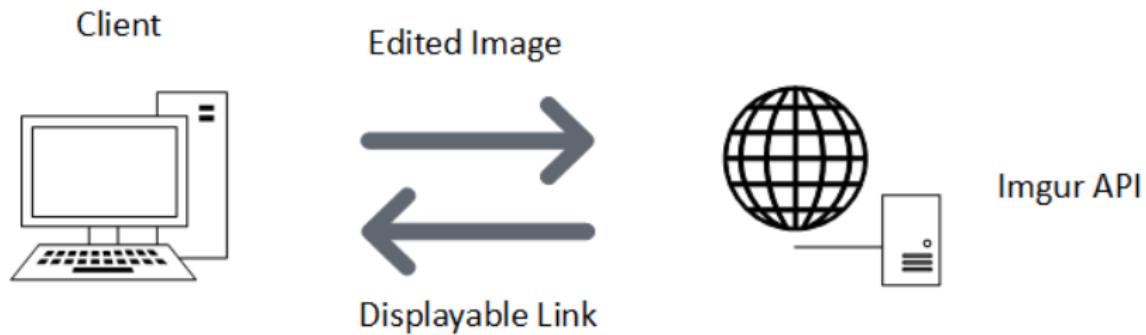


Abb. 31: **Imgur Konzept**

Quelle: Pinterics David

Client



Data URL



SNEK Cache

Abb. 32: **Imgur Konzept**

Quelle: Pinterics David

Intel/Client

Ausschnitte:

- TONIC
- NPM Modules
- Releases
- Subscription based

Abb. 33: Quelle: GitHub, 2016

github.com/snek-at

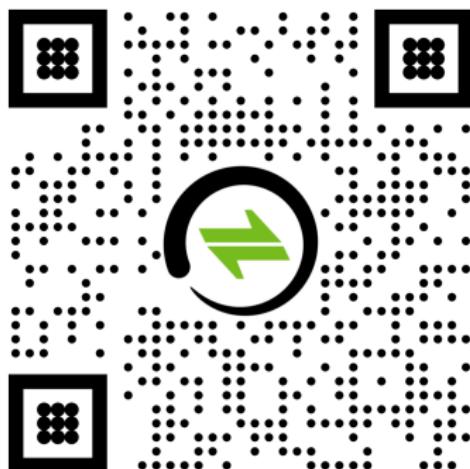


Abb. 34:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018

Was?:

- TONIC - The Obviously NON Intuitive Coding
- Definiert Richtlinien
- Formatierung
- Dokumentation
- TypeScript, JavaScript, HTML, CSS,...

TONIC - Example 1



- Create a new line if the code is logically separated. **Bad**

```
let a = 81;
let b = 1701;

a = a + 5;
a = 2 / 1;
a = a % 10;
b = b - 2000;
b = b * 1.5;
console.log();
console.log();
```

Good

```
let a = 81;
let b = 1701;

a = a + 5;
a = 2 / 1;
a = a % 10;

b = b - 2000;
b = b * 1.5;

console.log();
console.log();
```

Abb. 35: Logically Separation Rule

Quelle: TONIC STYLEGUIDE



```
1  /**
2   * #ENTRYPOINT
3   * #
4   * intel = new Intel();
5   * intel.append(Isource);
6   * intel.appendList(Isource[]);
7   * intel.generateTalks(Isource[], organizations?);
8   * intel.appendTalk(file);
9   * intel.getDownloadUrl();
10  * intel.getTalks();
11  * intel.get();
12  * intel.smekClient;
13  * #
14  *
15  * @see {@link https://github.com/snek-at/intel#usage} for usage
16  * examples.
17  */
```

Abb. 36: Entrypoint Rule
Quelle: TONIC STYLEGUIDE



```
126 //#region > Classes
127 /**
128 * @class Intel - A place where everything becomes one thing.
129 *      By using the snek-client, utils and the brand new snek-reducer we
130 *      undoubtedly created the best way to process data
131 *      in the 21st century.
132 * @implements IIntel
133 * @see {@link http://github.com/snek-at/intel/README.md |SNEK Intel README}
134 *      for further information.
135 */
136 export class Intel implements IIntel {
137     public snekclient: SnekClient;
138     private reducer: Reducer;
139
140 /**
141 * @constructor
142 * @author Nico Schett <contact@schett.net>
143 */
144 constructor() {
145     // init snekclient
146     this.snekclient = new SnekClient();
147     // init reducer
148     this.reducer = new Reducer();
149 }
```

Abb. 37: Header Rule
Quelle: TONIC STYLEGUIDE

STYLEGUIDE unter: <https://github.com/snek-at/tonic>

Ausschnitte:

- TONIC
- NPM Modules
- Releases
- Subscription based

Abb. 38: Quelle: GitHub, 2016

github.com/snek-at

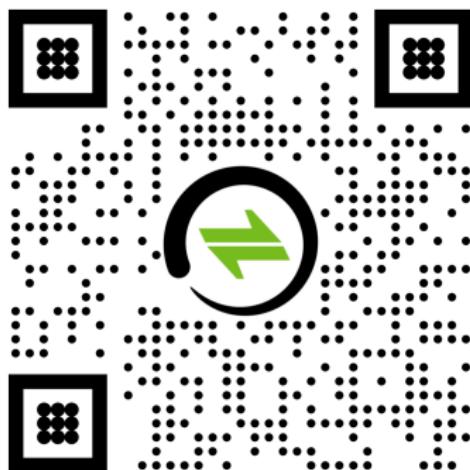


Abb. 39:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018

Was?:

- NPM ist die weltweit größte Software Registry
- mehr als 800.000 Pakete
- Hauptteils Opensource
- Perfekt für Intel und Client Pakete

```
snek-client
Enoy it.
sxct published 0.1.1 • 12 days ago

snek-intel
A not so tiny snek intel.
sxct published 0.1.1 • 7 days ago
```

Abb. 40: Intel und Client als NPM Pakete

Quelle: Schett Nico

Ausschnitte:

- TONIC
- NPM Modules
- Releases
- Subscription based

Abb. 41: Quelle: GitHub, 2016

github.com/snek-at

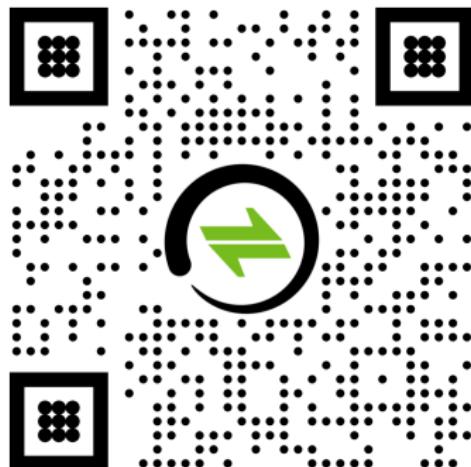


Abb. 42:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018

Warum?:

- Release Notes
- Download des Endresultats als Binary
- Semantic Versioning (MAJOR.MINOR.PATCH)



Abb. 43: SNEK Client v.0.1.1

Quelle: Schett Nico

Releases - Example 2



Latest release

0.1.1
3cccf5

Verified

Compare ▾

schettn released this 7 days ago

Patch organisation source

What is the current behavior?

- Currently the talk generation is invalid if GitHub and GitLab are connected. #83

What is the new behavior

- Now talk generation is processing only GitHub organizations. Therefore there is no querying error on GitLab organisations. #83

Assets 2

Source code (zip)

Source code (tar.gz)

Abb. 44: SNEK Intel v.0.1.1

Quelle: Schett Nico

Ausschnitte:

- TONIC
- NPM Modules
- Releases
- **Subscription based**

Abb. 45: Quelle: GitHub, 2016

github.com/snek-at

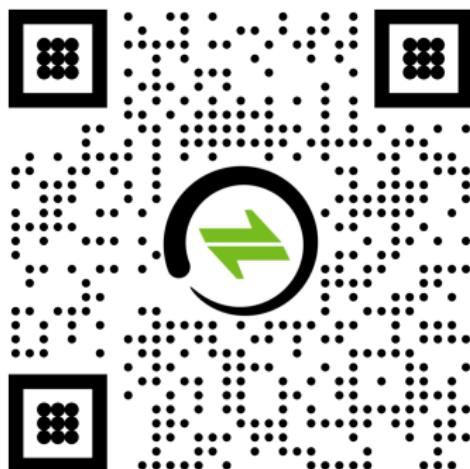


Abb. 46:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018

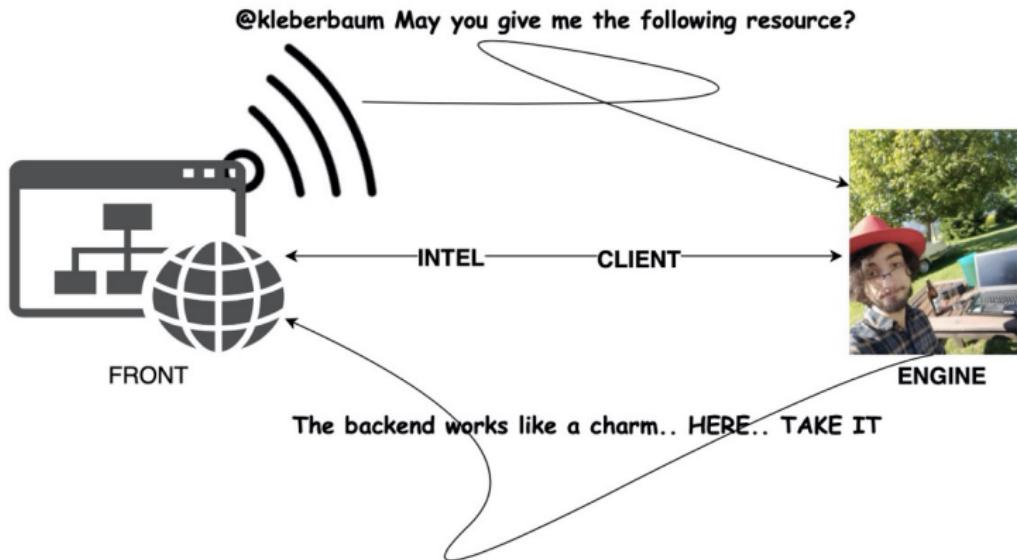


Abb. 47: Request-Response Flow

Quelle: Schett Nico

Subscription based

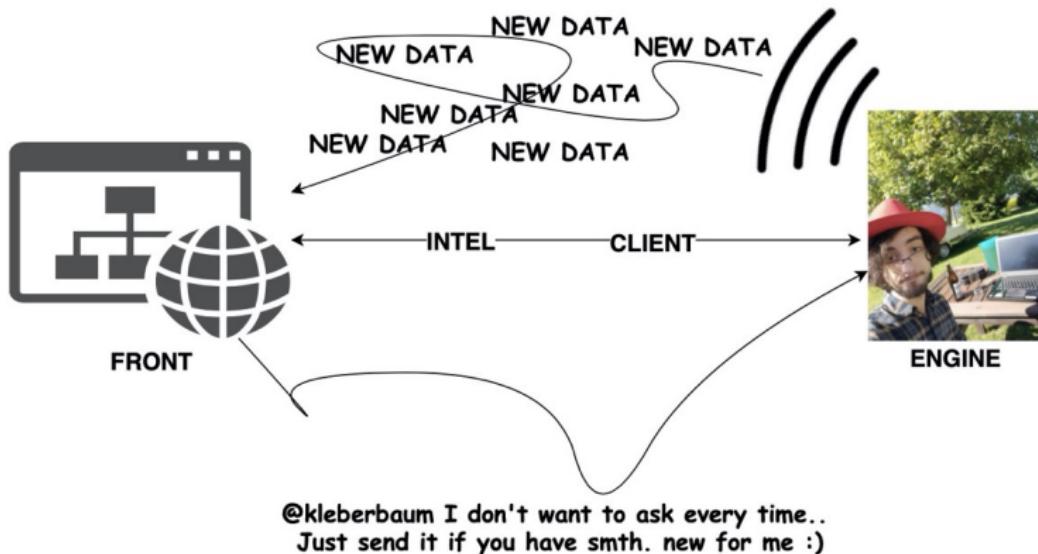


Abb. 48: Publish-Subscribe Flow

Quelle: Schett Nico

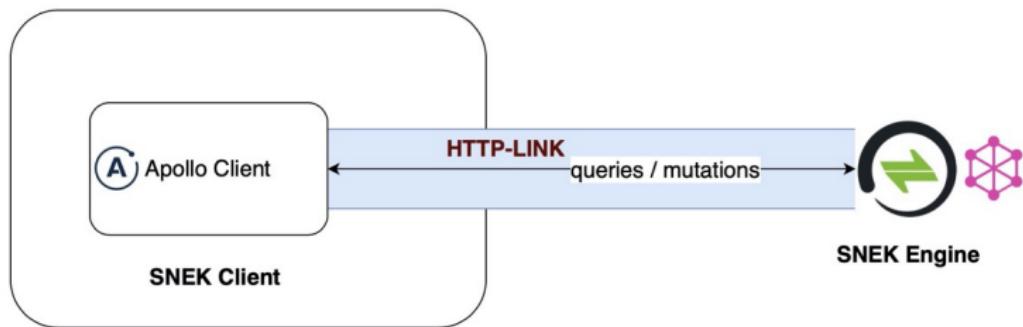


Abb. 49: Ausschließlich Mutations und Queries

Quelle: Schett Nico

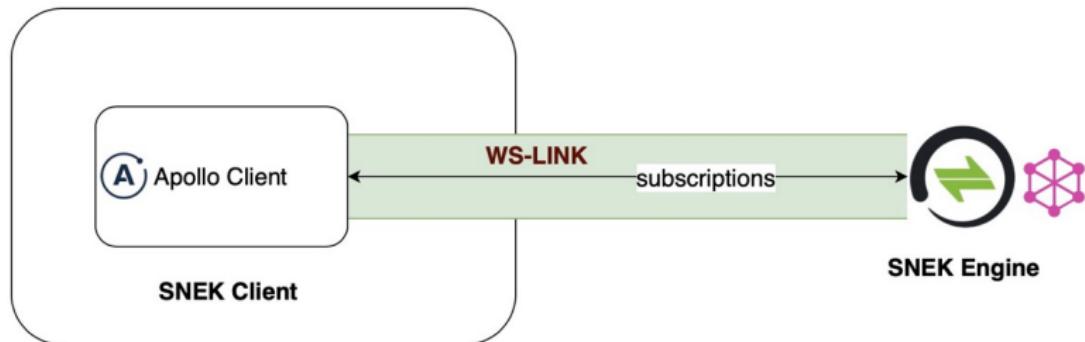


Abb. 50: Ausschließlich Subscriptions

Quelle: Schett Nico

Subscription based - Client Implementation

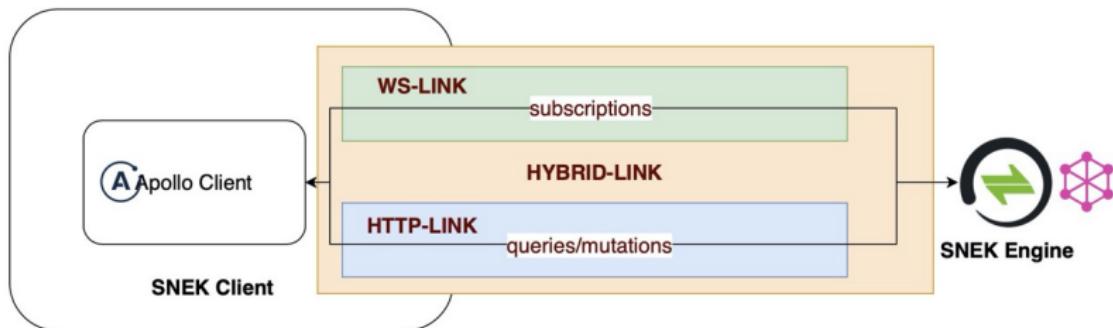


Abb. 51: **Mutations, Queries und Subscriptions simultan**
Quelle: Schett Nico

Backend

Ausschnitte:

- Adminer
- Subscription based

Abb. 52: Quelle: GitHub, 2016

github.com/snek-at

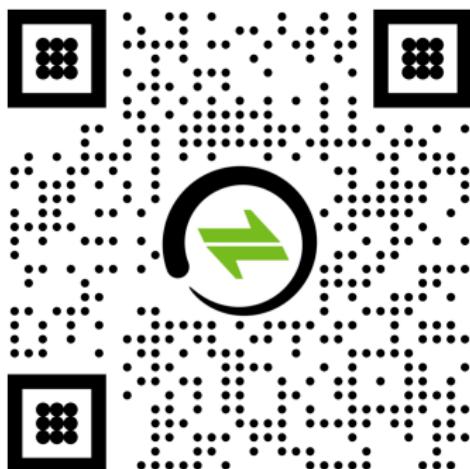


Abb. 53:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018

 **Adminer**

VS



Abb. 54: Adminer VS phpMyAdmin

Quelle: Florian Kleber



Login

System	<input type="text" value="PostgreSQL"/>
Server	<input type="text" value="snek_db"/>
Username	<input type="text" value="cisco"/>
Password	<input type="text" value="....."/>
Database	<input type="text" value="snek"/>
Login <input type="checkbox"/> Permanent login	

Abb. 55: Adminer Interface

Quelle: Florian Kleber

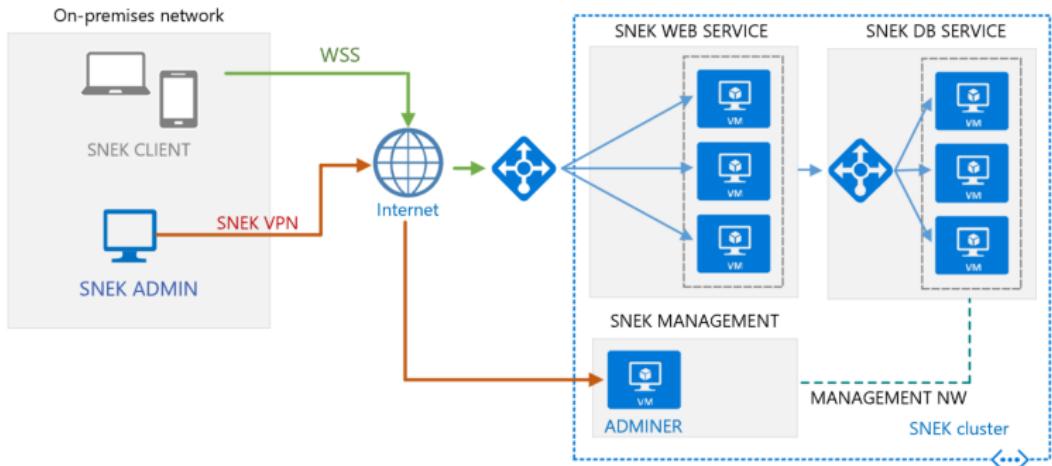


Abb. 56: SNEK Management

Quelle: Florian Kleber



Abb. 57: Adminer Interface

Quelle: Florian Kleber



adminer 4.7.6

public

SQL command Import Export Create table

auth_group	select
auth_group_permissions	select
auth_permission	select
django_admin_log	select
django_content_type	select
django_migrations	select
django_session	select
event_event	select
gift_giftcode	select
home_button	select
home_homepage	select
navigation_navigationsettings	select
profile_profilepage	select
refresh_token_refreshtoken	select
registration_formfield	select
registration_registrationformpage	select
registration_registrationformsubmission	select
survey_formfield	select
survey_surveyformpage	select
taggit_tag	select
taggit_taggeditem	select

PostgreSQL > snek_db > snek > Schema: public

Logout

Schema: public

Alter schema Database schema

Tables and views

Search data in tables (47)

Search

#	Table	Engine	Collation	Data Length ¹	Index Length ¹	Data Free	Auto Increment	Rows ¹	Comment ¹
1	auth_group	table		8,192	49,152	?	?	0	
2	auth_group_permissions	table		8,192	65,536	?	?	0	
3	auth_permission	table		16,384	73,728	?	?	165	
4	django_admin_log	table			32,768	?	?	0	
5	django_content_type	table		8,192	32,768	?	?	0	
6	django_migrations	table		16,384	49,152	?	?	135	
7	django_session	table		24,576	90,112	?	?	16	
8	event_event	table		8,192	40,960	?	?	0	
9	gift_giftcode	table		8,192	32,768	?	?	59	
10	home_button	table		8,192	40,960	?	?	0	
11	home_homepage	table			16,384	?	?	0	
12	navigation_navigationsettings	table		8,192	40,960	?	?	0	
13	profile_profilepage	table		34,576	475,116	?	?	11	

Selected (0)

Vacuum Optimize Truncate Drop

Move to other database: public Move

Abb. 58: Adminer Interface
Quelle: Florian Kleber

Ausschnitte:

- Adminer
- Subscription based

Abb. 59: Quelle: GitHub, 2016

github.com/snek-at

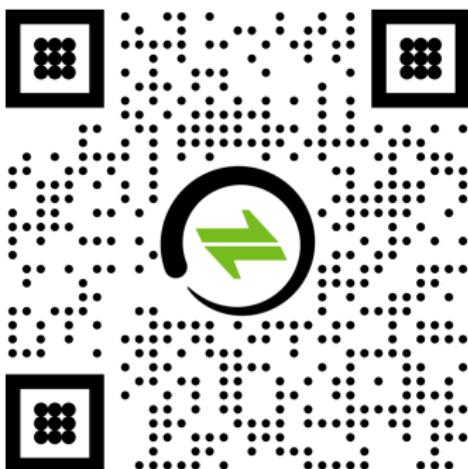


Abb. 60:

Quelle:

QRCode Monkey, Air Quality Monitoring Station, 2018

```
@register_streamfield_block
class _SE_AttendeeBlock(blocks.StructBlock):
    attendee_name = blocks.CharBlock(null=True, required=False, help_text="Name of the attendee")
    attendee_email = blocks.EmailBlock(null=True, required=False, help_text="Important! Format ci@s.co")
    attendee_attendance = blocks.BooleanBlock(null=False, required=False, default=False, help_text="Whether the attendee has attended")
    attendee_cache = blocks.TextBlock(null=True, required=False, help_text="Other information")

    graphql_fields = [GraphQLString("attendee_name"), GraphQLString("attendee_email"), GraphQLBoolean("attendee_attendance")]

class Session(models.Model):
    session_id = models.CharField(primary_key=True, max_length=36)
    session_name = models.CharField(null=True, blank=True, max_length=32)

    session_attendees = StreamField([
        ('se_attendee', _SE_AttendeeBlock(null=True, icon='fa-credit-card')),
    ], null=True, blank=True)
```

Abb. 61: A SNEK Model

Quelle: Florian Kleber

Subscription based



```
# GraphQL Query old
query event_sessions($token: String){
  sessions(token: $token){
    sessionId
    sessionName
    sessionAttendees{
      rawValue
    }
  }
}

# Result as GenericScalar
{
  "data": {
    "sessions": [
      {
        "sessionAttendees": [
          {
            "rawValue": "{ 'attendee_name': 'kleber-florian-4ahitn', 'attendee_email': 'florian.kleber@edu.htl-villach.at' }"
          },
          {
            "rawValue": "{ 'attendee_name': 'htlvillach-schettn', 'attendee_email': 'schettn2@edu.htl-villach.at' }"
          }
        ],
        "sessionId": "1371ee40-1c7e-4268-a395-06015906317d",
        "sessionName": "SNEK Workshop"
      }
    ]
  }
}
```

Abb. 62: A SNEK Model

Quelle: Florian Kleber

Subscription based

```
# GraphQL Query new
query event_sessions($token: String){
  sessions(token: $token){
    sessionId
    sessionName
    sessionAttendees{
      attendee_name
      attendee_email
      attendee_attendance
      attendee_cache
    }
  }
}

# Result with resolved Types
{
  "data": {
    "sessionAddAttendee": {
      "session": {
        "sessionAttendees": [
          {
            "attendee_name": "kleber-florian-4ahitn",
            "attendee_email": "florian.kleber@edu.hvl.at",
            "attendee_attendance": false,
            "attendee_cache": ""
          },
          {
            "attendee_name": "kleber-florian-4ahitn",
            "attendee_email": "florian.kleber@edu.hvl.at",
            "attendee_attendance": false,
            "attendee_cache": ""
          }
        ]
      }
    }
  }
}
```

Abb. 63: Old Query

Quelle: Florian Kleber

„SNEK ❤ ITP“ - SNEK TEAM