Lifehack-Engine

Project Presentation – Information Retrieval SoSe 2019
Franziska Görg & Miriam Amin
4/6/19

Goal

- schnelle Hilfe im Alltag
- Mehr oder weniger sinnvolle Tipps zu Stichworten finden

"A life hack is a seemingly intractable, stubborn problem that can be solved by thinking "outside the box"."
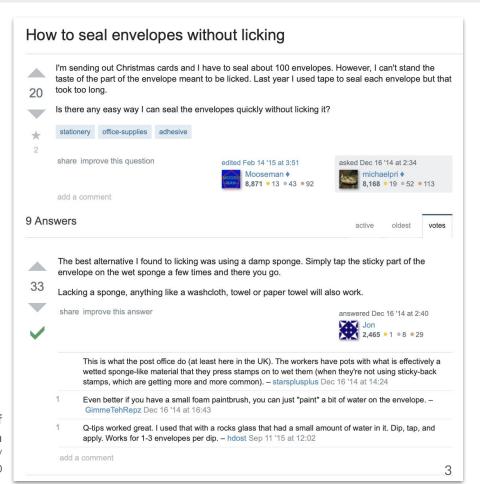
Datensatz

- Fragen und Antworten von lifehack.stackoverflow.com
- Download als zip von archive.org
- insgesamt 2375 Dokumente
- ein Dokument umfasst u.a. Titel, Frage, Antworten und Kommentare

Abb. 1: Screenshot eines Posts mit Titel, Frage, Antwort und Kommentaren auf lifehacks.stackexchange.com
https://lifehacks.stackexchange.com/questions/1862/
how-to-seal-envelopes-without-licking/7580#7580

3

Datenstruktur

variables of interest:

- answers
- comments
- title
- body

Alle comments und answers werden zusammen in einem Feld gespeichert, Zuordnung und Abgrenzung ist also nicht möglich, aber auch nicht notwendig für den Zweck der Suche

Name	Type	Format	Searchable	Aggregatable
_id	string		●	●
_index	string		●	●
_score	number			
_source	_source			
_type	string		●	●
accepted_answer	string		●	
accepted_answer_score	number		●	●
answer_score	number		●	●
answers	string		●	
body	string		●	
categorie	string		●	●
comment_score	number		●	●
comments	string		●	
creation_date ⏲	date		●	●
id	string		●	
link	string		●	
score	number		●	●
title	string		●	
viewcount	number		●	●

Abb. 2: Alle Felder des Datenmodells, Screenshot aus Kibana

Corpusstatistik

Feld	Anzahl	durchschnittliche Zeichenzahl
title	2375	48
body	2375	481
answers	2375	1754
comments	2375	1024

Tab 1: Anzahl Felder & durchschnittliche Zeichenzahl

Technology stack & code resources

- Backend: Flask
- Frontend: HTML, CSS
- Document Store, Indexing: ElasticSearch, Kibana

Prototype

clean carpet

Search

Cleaning/removing wax from carpet
Lifehacks, 2015-01-08

Someone has spilled hot candle wax on the carpet again. How can I remove it? Vacuuming doesn't seem to work, it breaks up the wax a bit, but not enough to pull it free from the carpet fibers and I would rather not have to rent a steam cleaner.

How to effectively and regularly clean 1200sqft of carpet?
Lifehacks, 2015-11-16

I live in a ~1200 square feet (~110 square meters) apartment which has carpet (cable style, very plush) on the floors (except bathroom / kitchen). I have a bag-less Dirt Devil vacuum cleaner which has a rotating brush. Unfortunately, due to the size of the apartment the cleaner tends to overheat and shut down. Also, fairly quickly, the brush collects a lot of hair and needs to be cleaned repeatedly . I have seen a recommendation to use a squeegee to remove the hair from the carpet . However, that only addresses the hair - and I wouldn't want...

Reducing carpet dust without removing the carpet
Lifehacks, 2017-02-05

I have a room with a carpet, and it's dusty. Rooms without carpet get less dusty, and dust allergy advise is always to get rid of carpets. Unfortunately I have other health issues that make it difficult to remove the carpet, so other than paying someone to move all my stuff and lay a nice hard floor, what options are there for reducing the impact on dust and my health? I already have a Dyson vacuum and it never fails to remove a lot of dust, much of it very fine like talcum powder.

Fixing burned carpet
Lifehacks, 2018-11-09

I was recently trying to get candle wax off my carpet using iron which was affective but I forgot that I was running out of paper and that left a burn on my carpet which I m sad about as I am a on rent. How can I removed the black burn area without discolouring or damaging the carpet?

Abb. 3: Screenshot Lifehack-Engine vom 02.06.2019

7

Optimierungen

- Titel vierfaches Gewicht
- Body doppeltes Gewicht
- Kommentare halbes Gewicht

Topics 1/2

```
<topic number="12" type="single">
     <query>
     put toothpaste back in tube
     </query>
     <description>
     avoiding to waste toothpaste
     </description>
     <narrative>
     Relevant documents must include methods and instructions how
to get the extra toothpaste back in the tube, like using a syringe.
     They must also include ideas of storing toothpaste aside from
its common packaging.
     </narrative>
</topic>
```
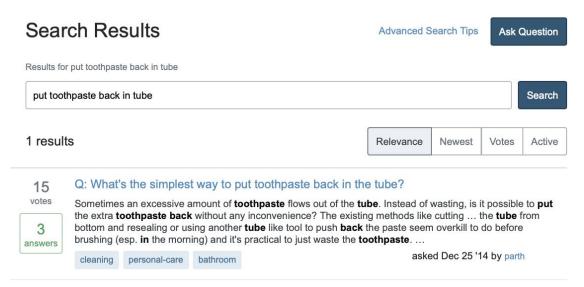
Topics 2/2

```
<topic number="13" type="single">
    <query>
    cook in electric kettle
    </query>
    <description>
What (besides water) can be cooked in an electric kettle
    </description>
    <narrative>
    Relevant documents must include food that can be prepared
using only an electric kettle and things to take into account when
preparing the food.
    </narrative>
</topic>
```

Performance Test: Lifehack-Enginge vs. Stackexchange

Search Results

Advanced Search Tips   **Ask Question**

Results for put toothpaste back in tube

put toothpaste back in tube   **Search**

1 results

Relevance   Newest   Votes   Active

15 votes

3 answers

Q: What's the simplest way to put toothpaste back in the tube?

Sometimes an excessive amount of **toothpaste** flows out of the **tube**. Instead of wasting, is it possible to **put** the extra **toothpaste back** without any inconvenience? The existing methods like cutting … the **tube** from bottom and resealing or using another **tube** like tool to push **back** the paste seem overkill to do before brushing (esp. **in** the morning) and it's practical to just waste the **toothpaste**. …

cleaning   personal-care   bathroom

asked Dec 25 '14 by parth

Perfomance Test: Lifehack-Enginge vs. Stackexchange

put toothpaste back in tube

Search

What's the simplest way to put toothpaste back in the tube?

Lifehacks, 2014-12-25

Sometimes an excessive amount of toothpaste flows out of the tube. Instead of wasting, is it possible to put the extra toothpaste back without any inconvenience? The existing methods like cutting the tube from bottom and resealing or using another tube like tool to push back the paste seem overkill to do before brushing (esp. in the morning) and it's practical to just waste the toothpaste.

How to put a mattress cover back on?

Lifehacks, 2015-09-20

When washing my top mattress covers, or even if only taking them off and putting them back on, I always have trouble putting them back on without the (foam) mattress buckling inside, making bumps that are uncomfortable to sleep on. It seems like the mattress is slightly too big for the cover, so it should be slightly compressed inside the cover, but putting it on makes the compression uneven or it bends instead of compressing. Are there any tricks to put these covers on while keeping the mattress smooth?

What domestic glue to put back a phone's LCD?

Lifehacks, 2015-09-25

Relevance Judgement

ID	Stackexchange				Lifehack-Engine			
	Franzi	Miri	P@10	P@10	Franzi	Miri	P@10	P@10
1	XXXXXOOOOO	XXXXXOOOOO	0,5	0,5	XOXXXXOOOO	XOXXXXOOOO	0,5	0,5
2	XOOOOOOOOO	XOOOOOOOOOO	0,1	0,1	OOOOOOOOOO	OOOOOOOOOO	0	0
3	XOOOOOOOOO	XOOOOOOOOO	0,1	0,1	XOOOOOOOOO	XOOOOOOOOO	0,1	0,1
4	OOOOOOOOOO	OOOOOOOOOO	0	0	XXOOOOOOOO	XXOOOOOOOO	0,2	0,2
5	OOOOOOOOOO	OOOOOOOOOO	0	0	OOOOOOOOOO	OOOOOOOOOO	0	0
6	XOOOOOOOOO	XOOOOOOOOO	0,1	0,1	OXOXOOOOOO	OXOXOOOOOO	0,2	0,2
7	XXOXOOOOOX	XXOXOOOOOX*	0,4		OOOXXOOOOO	OOOXXOOOOO	0,2	0,2
8	XOXOOOOOOO	XOXOOOOOOO*	0,2		XXOOOOOOOO	XXOOOOOOOO	0,2	0,2
9	OOOOOOOOOO	OOOOOOOOOO	0	0	XOXOOOOOOO	XOXOOOOOOO	0,2	0,2
10	XOXXXXOXOO	XOXXXXOXOO*	0,6		XOOOOOOOOO	XOOOOOOOOO	0,1	0,1

* same posts appear twice in result list, as post and as answer

Current status

Data Aquisition ✓

Data Analysis ✓

Technology Stack ✓

Vertical Prototype ✓

Refined Prototype ✓

Topics definieren ○

Relevance Judgement ○

Automatisches Deployment ○

Auswertung Judgement ○

Fragen

- Topics:
  - für viele Topics gibt es nur einen relevanten Beitrag
  - → sollen wir die Topics allgemeiner formulieren (query "dog" anstatt "make dog stop barking")?
  - Schwierigkeit: narratives formulieren
- Judgement:
  - Stackexchange Suche gibt oft weniger als 10 Resultate zurück
  - → wie damit umgehen für P@10 (restliche Ranks mit irrelevant auffüllen?)
  - result list: in der Trefferliste von stackexchange können Dokumente doppelt vorkommen: einmal als Frage und einmal als Antwort
  - →   sollen wir nur das erste Vorkommen zählen und das zweite als irrelevant markieren?