

Aplikace pro vyhodnocování využitelnosti titulů ve fondu knihovny

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* Marie Kondo tohle nikdy neřekla. ([Truthorfiction.com](https://www.truthorfiction.com))

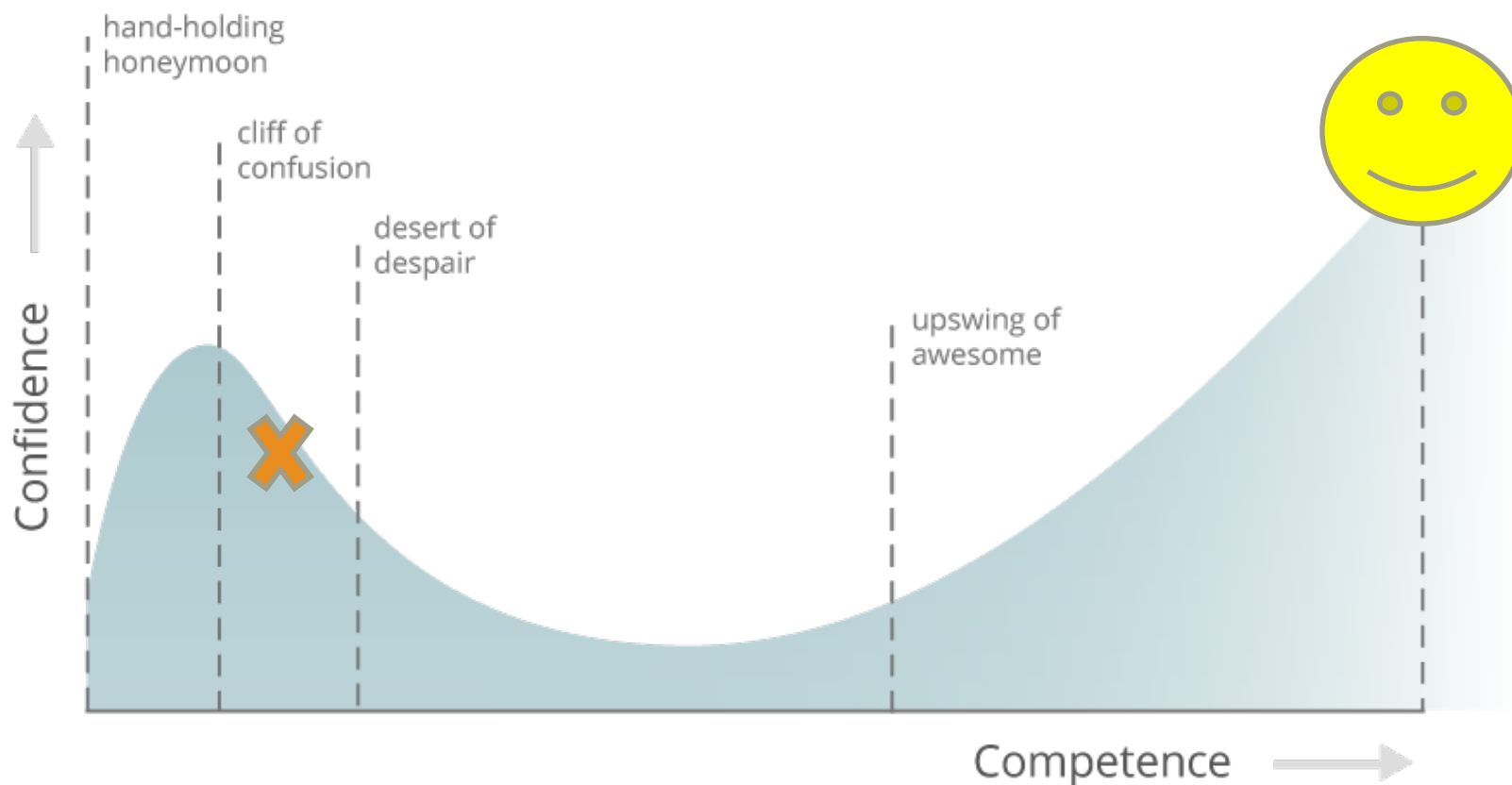
**Máme katalog plný dat o
výpůjčkách s přesností na vteřiny**



**Proč se nepodívat, kolik
jednotek je denně vypůjčených?**

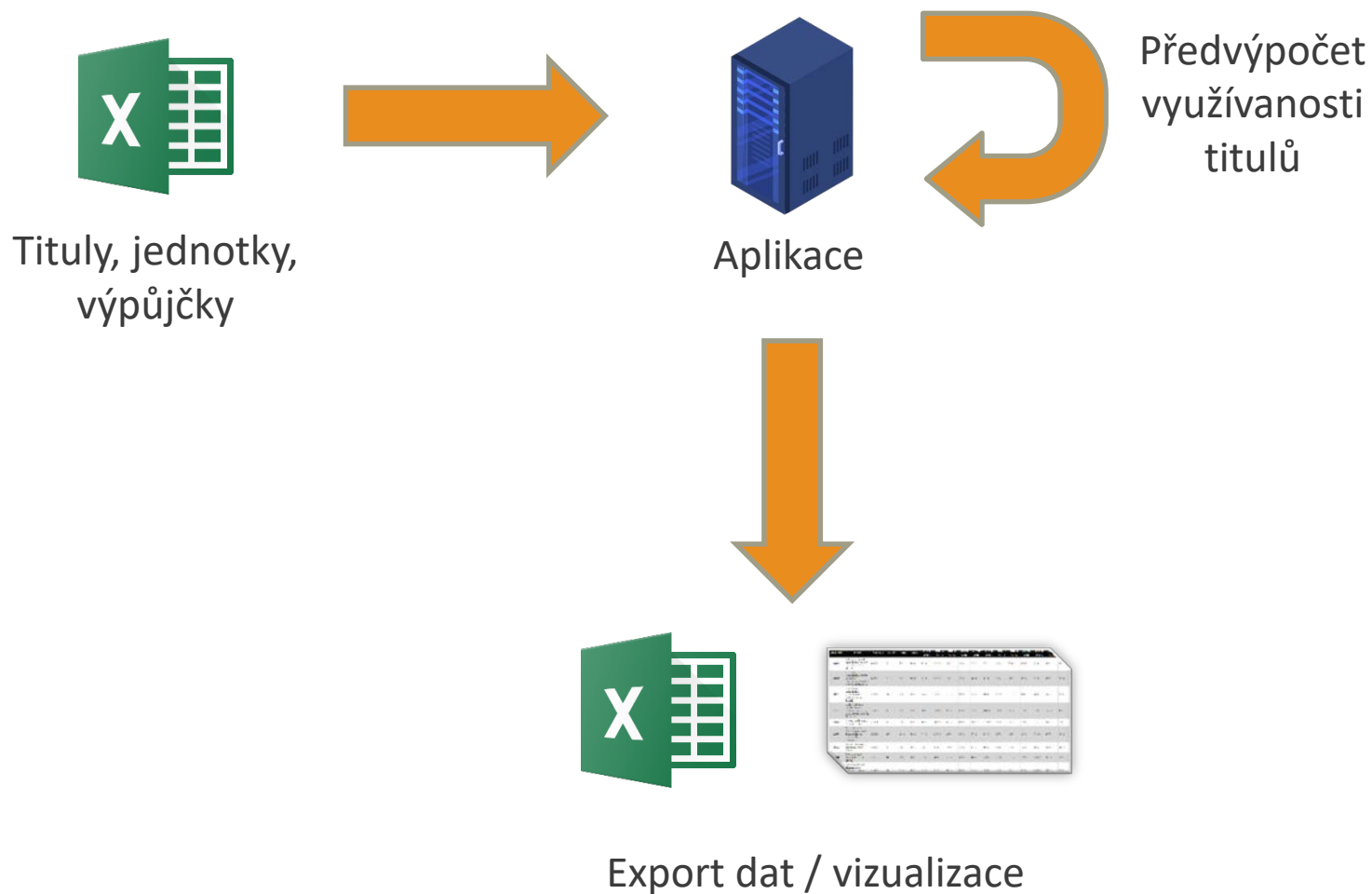


Coding Confidence vs Competence



TRAUTMAN, Eric, 2015. Why Learning to Code is So Damn Hard. In: Thinkful: Blog [online]. [cit.. 17. říjen 2019]. Dostupné z: <https://www.thinkful.com/blog/why-learning-to-code-is-so-damn-hard/>

Jak to funguje



Zpracovávaná data

Tituly

Systemové číslo

Signatura

Název

ISBN

Autor

Výpůjčky

ID výpůjčky

Systemové číslo

Pořadové číslo jednotky

Datum výpůjčky

Datum vrácení

Jednotky

Systemové číslo

Pořadové číslo jednotky

Čárový kód

Signatura

Status

Datum pořízení

Datum odpisu

Využívanost

Datum (den)

Systemové číslo

Status

Počet vypůjčených
jednotek

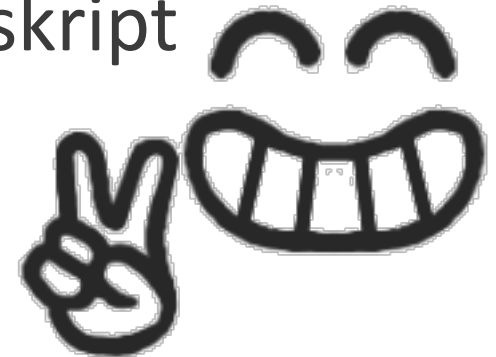
Počet akt. jednotek

| date | ADM_REC | status | loans_count | unit_count |
|------------|---------|--------|-------------|------------|
| 2019-07-17 | 72743 | 4 | 1 | 1 |
| 2019-07-17 | 72719 | 4 | 1 | 1 |
| 2019-07-17 | 72707 | 4 | 1 | 1 |
| 2019-07-17 | 72705 | 4 | 1 | 1 |
| 2019-07-17 | 72649 | 5 | 1 | 21 |
| 2019-07-17 | 72645 | 5 | 5 | 12 |
| 2019-07-17 | 72616 | 4 | 1 | 1 |
| 2019-07-17 | 72613 | 4 | 1 | 1 |
| 2019-07-17 | 72597 | 4 | 1 | 2 |
| 2019-07-17 | 72596 | 4 | 1 | 2 |
| 2019-07-17 | 72595 | 4 | 1 | 2 |
| 2019-07-17 | 72588 | 4 | 1 | 1 |
| 2019-07-17 | 72587 | 4 | 1 | 1 |
| 2019-07-17 | 72375 | 4 | 1 | 2 |
| 2019-07-17 | 72131 | 4 | 3 | 3 |
| 2019-07-17 | 72130 | 4 | 1 | 3 |
| 2019-07-17 | 72127 | 4 | 1 | 1 |
| 2019-07-17 | 72110 | 4 | 3 | 9 |
| 2019-07-17 | 72109 | 4 | 3 | 3 |
| 2019-07-17 | 72108 | 4 | 1 | 2 |

| ADM_REC | TITLE | CALLNO | UNITS | MIN | MAX | 2018-01 AVRG | 2018-02 AVRG | 2018-03 AVRG | 2018-04 AVRG | 2018-05 AVRG | 2018-06 AVRG | 2018-07 AVRG | 2018-08 AVRG | 2018-09 AVRG | 2018-10 AVRG | 2018-11 AVRG | 2018-12 AVRG |
|---------|---|--------|-------|------|------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 40140 | Základy strojírenské technologie : (návodů na cvičení) / Milan Brožek | S 1959 | 21 | 5 % | 99 % | 75 % | 36 % ! | 28 % | 19 % ! | 6 % ! | 5 % | 5 % | 7 % ! | 6 % ! | 93 % | 99 % | 98 % |
| 40232 | Inseminace hospodářských zvířat se základy biotechnických metod / František Louda a kol. | S 1971 | 9 | 0 % | 99 % | 64 % | 19 % ! | 11 % | 19 % ! | 19 % ! | 11 % | 0 % | 18 % ! | 39 % ! | 98 % | 99 % | 92 % |
| 58320 | Strojírenská technologie : (technologické postupy) / Milan Brožek | S 2785 | 30 | 8 % | 99 % | 66 % | 42 % | 30 % | 21 % ! | 14 % ! | 18 % | 10 % | 10 % | 8 % | 99 % | 99 % | 95 % |
| 62918 | Živiny a živinové potřeby člověka : učebnice pro studenty ČZU v Praze / Jaroslav Havlík, Mí | S 2922 | 11 | 19 % | 99 % | 30 % | 73 % ! | 99 % | 97 % | 97 % | 48 % ! | 33 % | 27 % | 19 % | 21 % | 37 % ! | 49 % |
| 63155 | Cvičení z paliv a maziv / Vladmír Hönl | S 2923 | 11 | 0 % | 99 % | 18 % | 64 % ! | 99 % | 85 % | 58 % ! | 21 % ! | 17 % | 17 % | 15 % ! | 8 % | 0 % | 0 % |
| 63364 | Mikroekonomie : teorie a praxe / Josef Brčák, Bohuslav Sekerka, Roman Svoboda. | S 2936 | 109 | 10 % | 99 % | 94 % | 50 % ! | 33 % | 32 % | 37 % | 28 % | 15 % | 11 % | 10 % | 74 % ! | 99 % | 99 % |
| 70939 | Dovednosti v řízení / Jan Hron, Amoš Traxler. | S 3038 | 31 | 0 % | 99 % | 0 % | 30 % | 48 % | 70 % | 47 % | 19 % | 16 % | 14 % | 16 % | 96 % | 99 % | 88 % |
| 56201 | Ekotoxikologie / Daniela Pavlíková ... [et al.]. | S 2726 | 48 | 16 % | 98 % | 83 % | 44 % | 32 % | 32 % | 40 % | 23 % | 17 % | 16 % | 16 % | 63 % ! | 89 % | 98 % |
| 61396 | Statistické nástroje ekonomického výzkumu / Bohumil | S 2882 | 28 | 22 % | 98 % | 81 % | 86 % | 97 % | 98 % | 85 % | 53 % | 38 % | 27 % | 22 % | 65 % ! | 94 % | 91 % |

Omezení

- Prog. jazyk: PHP
- Výpočet využitelnosti trvá hoooodně dlouho
- Mé programátorské schopnosti (omezení)
- „Odepsáno“ cca 6 000 jednotek skript
- Volný výběr vs. výdej



Děkuji za pozornost

Zdrojové kódy na

<https://github.com/SuperDomek/akvizice>

SQL na historii výpůjček

```
SELECT cast(Z36H_NUMBER as int) AS LOAN_ID, cast(SUBSTR(Z36H_REC_KEY,1,9) as
int) AS ADM_REC, cast(SUBSTR(Z36H_REC_KEY,10,6) as int) AS UNIT_ID, Z36H_
LOAN_DATE AS LOAN_DATE,
    Z36H_RETURNED_DATE AS RETURN_DATE
FROM Z36H
WHERE Z36H_LOAN_DATE IS NOT NULL AND Z36H_LOAN_DATE <> 0
AND Z36H_RETURNED_DATE <> 0
and (Z36H_ITEM_STATUS like '04' or Z36H_ITEM_STATUS like '05' or Z36H_ITEM_
STATUS like '07')
UNION ALL
SELECT cast(Z36_NUMBER as int) AS LOAN_ID, cast(SUBSTR(Z36_REC_KEY,1,9) as
int) AS ADM_REC, cast(SUBSTR(Z36_REC_KEY,10,6) as int) AS UNIT_ID, Z36_LOAN
_DATE AS LOAN_DATE,
    Z36_RETURNED_DATE AS RETURN_DATE
FROM Z36
WHERE Z36_LOAN_DATE IS NOT NULL AND Z36_LOAN_DATE <> 0
and (Z36_ITEM_STATUS like '04' or Z36_ITEM_STATUS like '05' or Z36_ITEM_S
TATUS like '07')
```

SQL na aktivní jednotky

```
select CAST(substr(Z30."Z30_REC_KEY",1,9) AS INT) AS ADM_REC, cast(substr(Z30."Z30_REC_KEY",10,6) as int) AS UNIT_ID, Z30."Z30_BARCODE" AS BARCODE, Z30."Z30_CALL_NO" AS CALL_NO, cast(Z30."Z30_ITEM_STATUS" as int) AS STATUS, Z30."Z30_OPEN_DATE" AS ACQ_DATE, NULL AS DELETE_DATE
from Z30
where(Z30.Z30_ITEM_STATUS = '04' or Z30.Z30_ITEM_STATUS = '05' or Z30.Z30_ITEM_STATUS like '06%')
and Z30.Z30_MATERIAL like 'BOOK%'
and (Z30.Z30_COLLECTION like 'ZK   ' or Z30.Z30_COLLECTION like 'ZKS  ')
and (Z30.Z30_ITEM_PROCESS_STATUS like '   ' or Z30.Z30_ITEM_PROCESS_STATUS is null)
```

SQL na smazané jednotky 1/2

```
select substr(Z30H_REC_KEY, 1, 9) AS ADM_REC, substr(Z30H_REC_KEY, 10, 6) AS UNIT_ID, MAX(Z30H_ITEM
_STATUS) AS STATUS, MAX(Z30H_BARCODE) AS BARCODE, MAX(Z30H_CALL_NO) AS CALL_NO, MIN(Z30H_OPEN_DATE)
 AS ACQ_DATE, CAST(MAX(Z30H_H_DATE) AS VARCHAR(20)) AS DELETE_DATE, 'Z30H' AS SOURCE
from Z30H LEFT JOIN Z30 ON substr(Z30H.Z30H_REC_KEY, 1, 15) = Z30.Z30_REC_KEY
where Z30H_MATERIAL like 'BOOK%'
and (Z30H_ITEM_STATUS like '04' or Z30H_ITEM_STATUS like '05')
and Z30H_H_REASON_TYPE like 'DELETE%'
and (Z30H.Z30H_H_DATE >= Z30.Z30_UPDATE_DATE or Z30.Z30_UPDATE_DATE is null)
and Z30H_COLLECTION like 'ZK '
GROUP BY substr(Z30H_REC_KEY, 1, 9), substr(Z30H_REC_KEY, 10, 6)
UNION ALL
--vyrazene jednotky podle Z30
select substr(Z30_REC_KEY, 1, 9) as ADM_REC, substr(Z30_REC_KEY, 10, 6) as UNIT_ID, Z30_ITEM_STATUS
 AS STATUS, Z30_BARCODE as BARCODE, Z30_CALL_NO AS CALL_NO, Z30_OPEN_DATE as ACQ_DATE,
     case when Z30_ITEM_STATISTIC is null then cast(Z30_UPDATE_DATE as varchar(20)) else cast(Z30_IT
EM_STATISTIC as varchar(20)) end as DELETE_DATE, 'Z30' AS SOURCE
from Z30
where Z30.Z30_MATERIAL like 'BOOK%'
and Z30.Z30_COLLECTION like 'ZK '
and (Z30.Z30_ITEM_PROCESS_STATUS like 'VY' or Z30.Z30_ITEM_PROCESS_STATUS like 'US'
or Z30.Z30_ITEM_PROCESS_STATUS like 'MP' or Z30.Z30_ITEM_PROCESS_STATUS like 'MI')
and (Z30_ITEM_STATUS like '04' or Z30_ITEM_STATUS like '05' or Z30_ITEM_STATUS like '07')
--kontrola na duplicity
--SELECT ADM_REC, UNIT_ID, COUNT(*)
--from AKV_SMAZANE_JEDNOTKY
--GROUP BY ADM_REC, UNIT_ID
```

SQL na smazané jednotky 2/2

```
-- deduplikace jednotek získaných ze Z30 a Z30H
select cast(a.ADM_REC as int) as ADM_REC, cast(a.UNIT_ID as int) as UNIT_ID
, cast(a.STATUS as int) as STATUS, a.BARCODE, a.CALL_NO, a.ACQ_DATE, a.DELE
TE_DATE
from AKV_SMAZANE_JEDNOTKY_DUPL a
inner join (
select ADM_REC, UNIT_ID, MAX(DELETE_DATE) DELETE_DATE
from AKV_SMAZANE_JEDNOTKY_DUPL
group by ADM_REC, UNIT_ID
) b ON a.ADM_REC = b.ADM_REC AND a.UNIT_ID = b.UNIT_ID AND a.DELETE_DATE =
b.DELETE_DATE
```

SQL na bibliografické info o titulech

```
SELECT CZU50.CAR_KODY_SIGNATORY.ADM_REC, CZU50.CAR_KODY_SIGNATORY.CALLNO, CZU01.TITULY.TITLE, CZU01.TITULY.ISBN, CZU01.TITULY.AUTHOR  
FROM CZU50.CAR_KODY_SIGNATORY JOIN CZU01.TITULY ON CZU50.CAR_KODY_SIGNATORY  
.BIB_REC = CZU01.TITULY.BIB_REC
```

```
SELECT V."ADM_REC", V."CAR_KOD", V."CALLNO", ADM_REC_TO_BIB_REC.BIB_REC  
AS BIB_REC  
FROM (SELECT SUBSTR(Z30_REC_KEY, 1, 9) AS ADM_REC, MIN(Z30_BARCODE)  
AS Car_kod, MIN(Z30_CALL_NO) AS CALLNO  
FROM Z30  
GROUP BY SUBSTR(Z30_REC_KEY, 1, 9)  
) V  
RIGHT JOIN ADM_REC_TO_BIB_REC ON V.ADM_REC=ADM_REC_TO_BIB_REC.ADM_REC  
WHERE V."ADM_REC" NOT LIKE '%null%'
```

SQL na CAR_KODY_SIGNATURY

```
SELECT V."ADM_REC",V."CAR_KOD",V."CALLNO",ADM_REC_TO_BIB_REC.BIB_REC AS BIB_REC
FROM (SELECT SUBSTR(Z30_REC_KEY,1,9) AS ADM_REC, MIN(Z30_BARCODE) AS Car_kod, MIN(Z30_CALL_NO) AS CALLNO
      FROM Z30
      GROUP BY SUBSTR(Z30_REC_KEY,1,9)
    ) V
RIGHT JOIN ADM_REC_TO_BIB_REC ON V.ADM_REC=ADM_REC_TO_BIB_REC.ADM_REC
WHERE V."ADM_REC" NOT LIKE '%null%'
--ADM_REC_TO_BIB_REC jen v případě předběhnutí BIB_REC a ADM_REC
```


SQL na ADM_REC_TO_BIB_REC

```
SELECT SUBSTR(Z103_REC_KEY,6,9) AS ADM_REC, SUBSTR(Z103_REC_KEY_1,  
6,9) AS BIB_REC  
FROM Z103  
WHERE Z103_LKR_TYPE = 'ADM'  
      AND Z103_LKR_LIBRARY = 'CZU50'
```

SQL na XXX01.TITULY

```
SELECT Z13_REC_KEY AS BIB_REC, Z13_AUTHOR AS Author,  
       Z13_TITLE AS Title, Z13_IMPRINT AS Imprint, Z13_ISBN_ISSN AS ISB  
N, Z13_OPEN_DATE AS Vytvoreno  
FROM Z13  
WHERE NOT EXISTS(SELECT Z00R_DOC_NUMBER FROM (SELECT * FROM Z00R W  
HERE Z00R.Z00R_FIELD_CODE LIKE 'STA') T WHERE T.Z00R_DOC_NUMBER =  
Z13.Z13_REC_KEY AND T.Z00R_TEXT LIKE '%NEZOBRAZOVAT%')  
AND Z13_REC_KEY NOT IN (SELECT Z00H_DOC_NUMBER FROM Z00H)
```