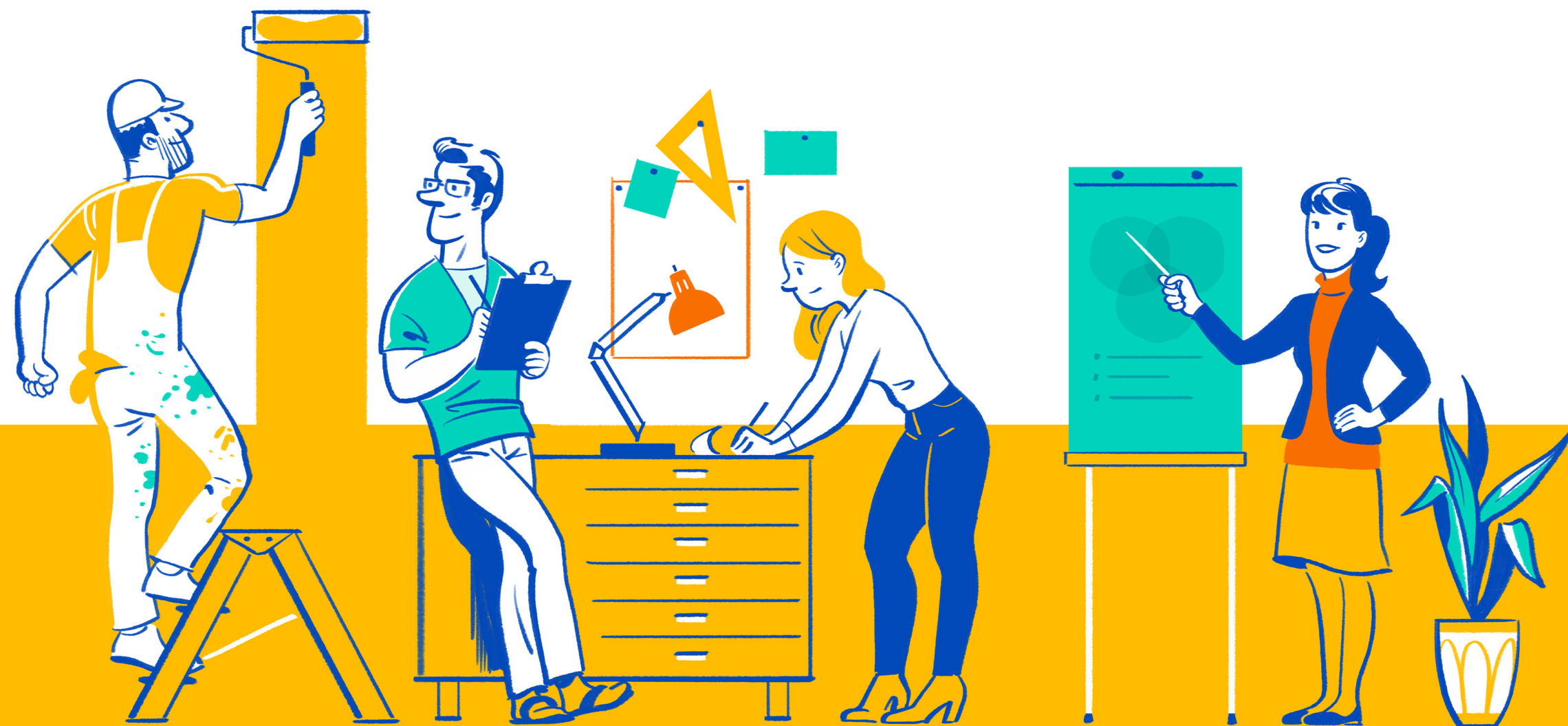


Paul Verbeek-Mast



Senior Software Engineer

confrere.com

@paul_v_m | noti.st/paul

kalendář

ປະຕິທິນ

ڪئلينڊر

mìosachan

日历

Calendar / Kalender / تقويم

(aka, the fun of locali[zs]ation)

קאַלנדאַר

календарь

קאַלענדאַר

Step I

User research

Step 2

Implementation

 English (UK)	 Čeština	 Українська
 English (US)	 Magyar	 Bahasa Indonesia
 Deutsch	 Română	 Bahasa Malaysia
 Nederlands	 日本語	 ภาษาไทย
 Français	 简体中文	 Eesti
 Español	 繁體中文	 Hrvatski
 Español (AR)	 Polski	 Lietuvių
 Català	 Ελληνικά	 Slovenčina
 Italiano	 Русский	 Srpski
 Português (PT)	 Türkçe	 Slovenščina
 Português (BR)	 Български	 Tiếng Việt
 Norsk	 العربية	 Filipino
 Suomi	 한국어	 Íslenska
 Svenska	 עברית	
 Dansk	 Latviski	

Falsehoods programmers believe about time

<http://infiniteundo.com/post/25326999628/falsehoods-programmers-believe-about-time>

More falsehoods programmers believe about time

<http://infiniteundo.com/post/25509354022/more-falsehoods-programmers-believe-about-time>



May 2017



From

dd-mm-yyyy

To

dd-mm-yyyy

Price

€

Save



Perl

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

May 2017



Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

From

To

Price

€

May 2017



Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

From

To

Price

\$

Save



Moment.js 2.22.2

Parse, validate, manipulate, and display dates and times in JavaScript.

date-fns

js-joda

ECMAScript Temporal proposal

(<https://github.com/tc39/proposal-temporal>)

May 2017 < >

Su	Mo	Tu	We	Th	Fr	Sa

From

To

Price
\$

```
moment.localeData().firstDayOfWeek(); // 0 or 1 (Sunday or Monday)
```

```
moment.localeData().weekdaysMin(); // ["Su", "Mo", "Tu", "We", "Th", "Fr", "Sa"]
```

May 2017< >

Su	Mo	Tu	We	Th	Fr	Sa
X						

From

To

Price

\$

Save

```
var calMoment = moment();
calMoment.startOf('month').startOf('week').date(); // 31
```

May 2017< >

Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

From

To

Price

\$

Save

```
var lastDay = moment().endOf('month').endOf('week').startOf('day'); // 3
while (!calMoment.isSameOrBefore(lastDay)) {
  ...
  calMoment.add(1, 'd').date();
}
```


May 2017



Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

From

??-??-??

To

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Price

\$

Save

```
moment.localeData()._longDateFormat['L']; // 'MM/DD/YYYY'
```

May 2017



Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

From

MM/DD/YYYY

To

MM/DD/YYYY

Price

\$

Save

Step 3

Testing

RTL

May 2017



Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

From

To

Price

€

Save

From

dd-mm-yyyy

To

dd-mm-yyyy

Price

€

Save

May 2017



Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

From

dd-mm-yyyy

To

dd-mm-yyyy

Price

€

Save

May 2017



Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

From

To

Price
 €

< >

May 2017

Su	Sa	Fr	Th	We	Tu	Mo
7	6	5	4	3	2	1
14	13	12	11	10	9	8
21	20	19	18	17	16	15
28	27	26	25	24	23	22
4	3	2	1	31	30	29

Step 3.1

Testing with users

“much better overview”

“I can finally find my reservations!”

“❤️ the new interface!”

“Looks a lot better, just like {popular rental website for apartments}'s calendar!”

“hate it, bring the old one back”

“who made this 🍌?”

“Reservations aren’t showing up”

“Why are closed dates red?”

“The date selection is not working”

“The prices aren’t showing properly”

Step 4

Bugfixing

“Reservations aren’t showing up”

“Why are closed dates red?”

“The date selection is not working”

“The prices aren’t showing properly”

“Reservations aren’t showing up”

“Why are closed dates red?”

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“The prices aren’t showing properly”

Mo	Tu	We	Th	Fr	Sa	Su
[Blue bar]						
	[Blue bar]					
					[Blue bar]	
			[Blue bar]			

Mo	Tu	We	Th	Fr	Sa	Su
[Blue bar]						
	[Blue bar]					
			[Blue bar]			



A world map with a light beige background. The landmasses are outlined in a darker beige. Brazil is highlighted in a solid orange color. The text is centered over the map.

https://en.wikipedia.org/wiki/Time_in_Brazil

```
dayA  
    .startOf( 'day' )  
    .add(1, 'd')  
    .isSame(dayB.startOf( 'day' ));
```

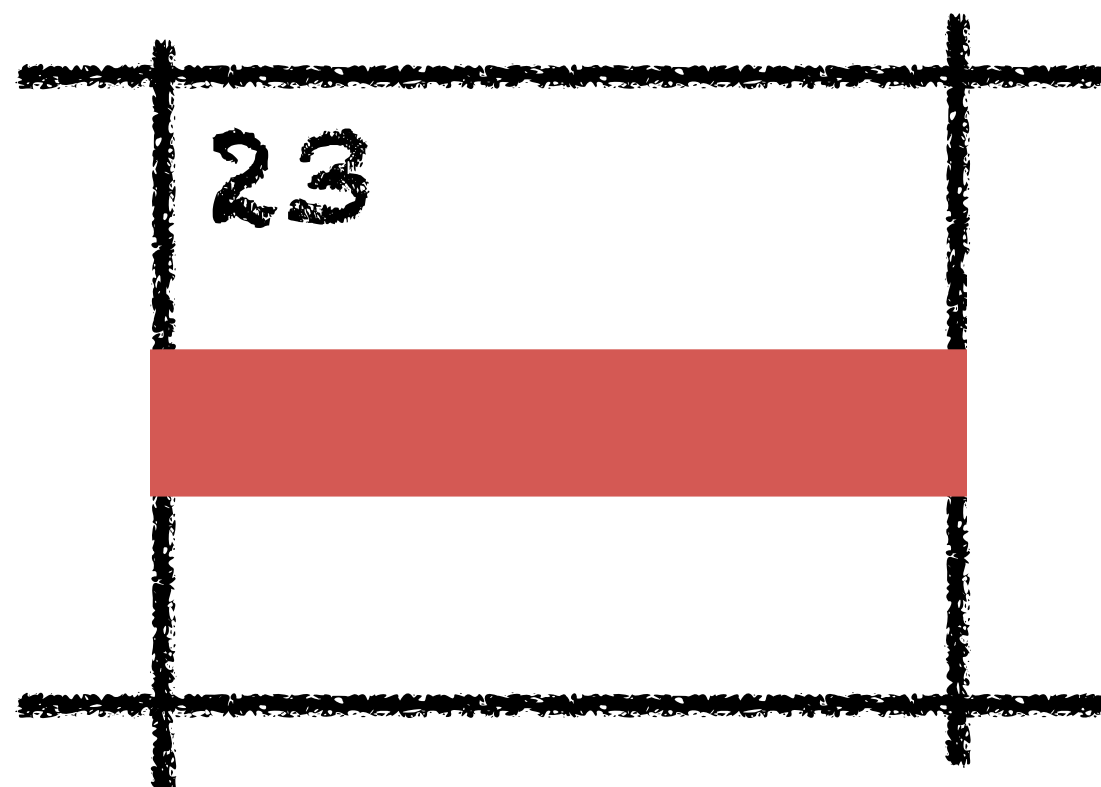
```
dayA  
    .add(1, 'd')  
    .startOf('day')  
    .isSame(dayB.startOf('day'));
```


“Reservations aren’t showing up”

“Why are closed dates red?”

“The date selection is not working”

“The prices aren’t showing properly”



12.19	-0.11	山东矿机	1034	1040	1025	003	千红制药
---	000	新时达	2187	2203	2178	-002	海康医疗
1428	024	英飞拓	1321	1334	1300	0.16	宝鼎重工
2851	059	海源机械	2417	2419	2360	048	南方轴承
725	-001	丰东股份	000	000	---	000	惠博普
1202	003	天顺风能	1370	1370	1355	008	顺荣三七
1812	020	新莱药业	1430	1437	1437	021	辉耀股份
3988	-002	金杯	897	893	893	005	恰恰食品
1862	030	杭锅股份	1441	1441	1441	0.15	世纪游轮
1531	023	林州重机				006	亚成股份
1081	034	西泵股份				036	通达股份
2098	-0.18	海立股份				000	律家汇
1650	041	科尔顿				003	兄弟科技
---	000	新都				025	森马服饰

“Reservations aren’t showing up”

“Why are closed dates red?”

“The date selection is not working”

“The prices aren’t showing properly”

From

dd-mm-yyyy

To

dd-mm-yyyy

May 2017						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

05/07/2018

```
moment.localeData()._longDateFormat[ 'L' ];
```

MM/DD/YYYY

```
$.datepicker.parseDate( 'MM/DD/YYYY', '05/07/2018' );
```

```
$.datepicker.parseDate( 'mm/dd/yy', '05/07/2018' );
```



```
function convertTojQueryUI() {  
  const format = moment().localeData()._longDateFormat['L'];  
  const dateDelimiterRegex = /[-\/]/;  
  const delimiter = (dateDelimiterRegex.exec(format) || '');  
  const dateTransform = {  
    'YYYY': 'yy',  
    ...  
    'D': 'd'  
  }  
  const getTransformedDatePart = part => dateTransform[part] || part;  
  
  return format  
    .split(dateDelimiterRegex)  
    .map(getTransformedDatePart)  
    .join(delimiter);  
}
```

```
const dateDelimiterRegex = /[-\/]/;
```

05/07/2018

05-07-2018

05.07.2018

```
const dateDelimiterRegEx = /[-\/.]/;
```

05/07/2018

05-07-2018

05.07.2018


```
const dateDelimiterRegex = /\w/;
```

05/07/2018

05-07-2018

05.07.2018

Slovenčina



Translate

English

Dutch

German

Slovenian - detected



Slovenčina





Translate

English

Dutch

German

Slovenian - detected



Slovenčina



Did you mean: *Slovenščina*



Translate

English

Dutch

German

Slovenian - detected



Slovenčina



Did you mean: **Slovenščina**

 Eesti

 Hrvatski

 Lietuvių

 Slovenčina

 Srpski

 Slovenščina

 Tiếng Việt

 Filipino

 Íslenska



English	Spanish	Slovak	Detect language	↔	English	Spanish	Arabic
Slovenčina				×	Slovak		

05.07.2018

```
const dateDelimiterRegex = /\W/;
```

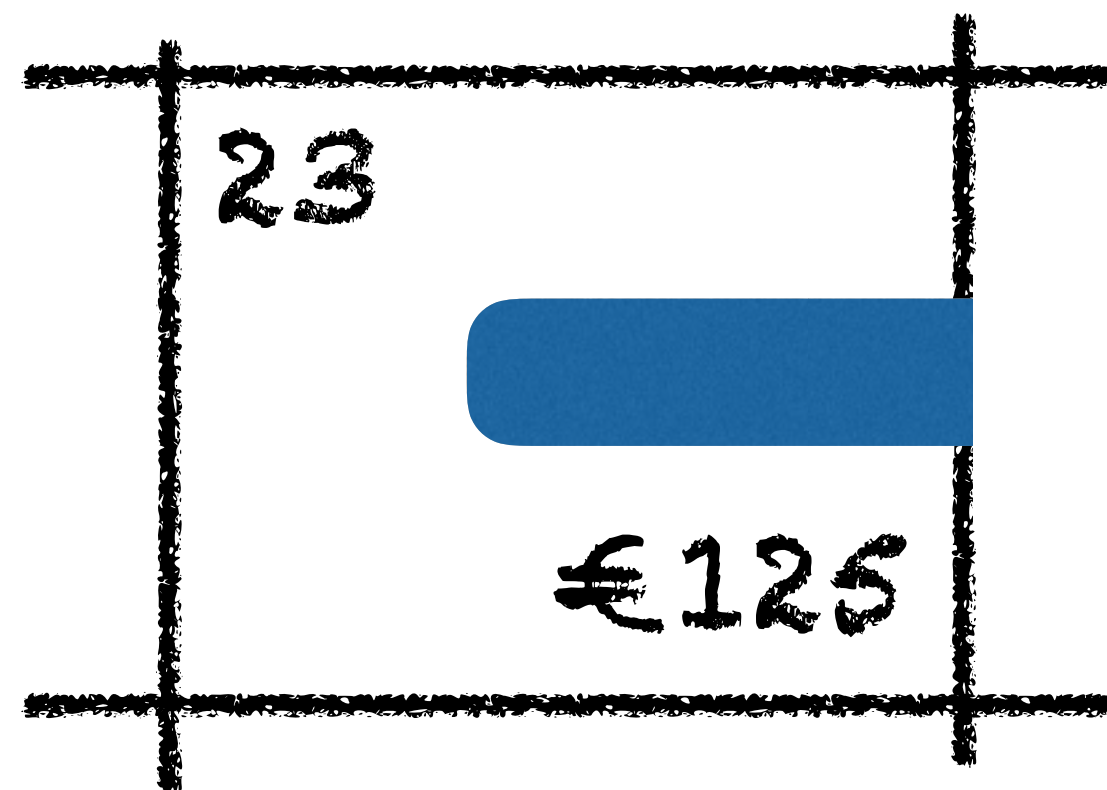
```
const dateDelimiterRegex = /\W+/;
```

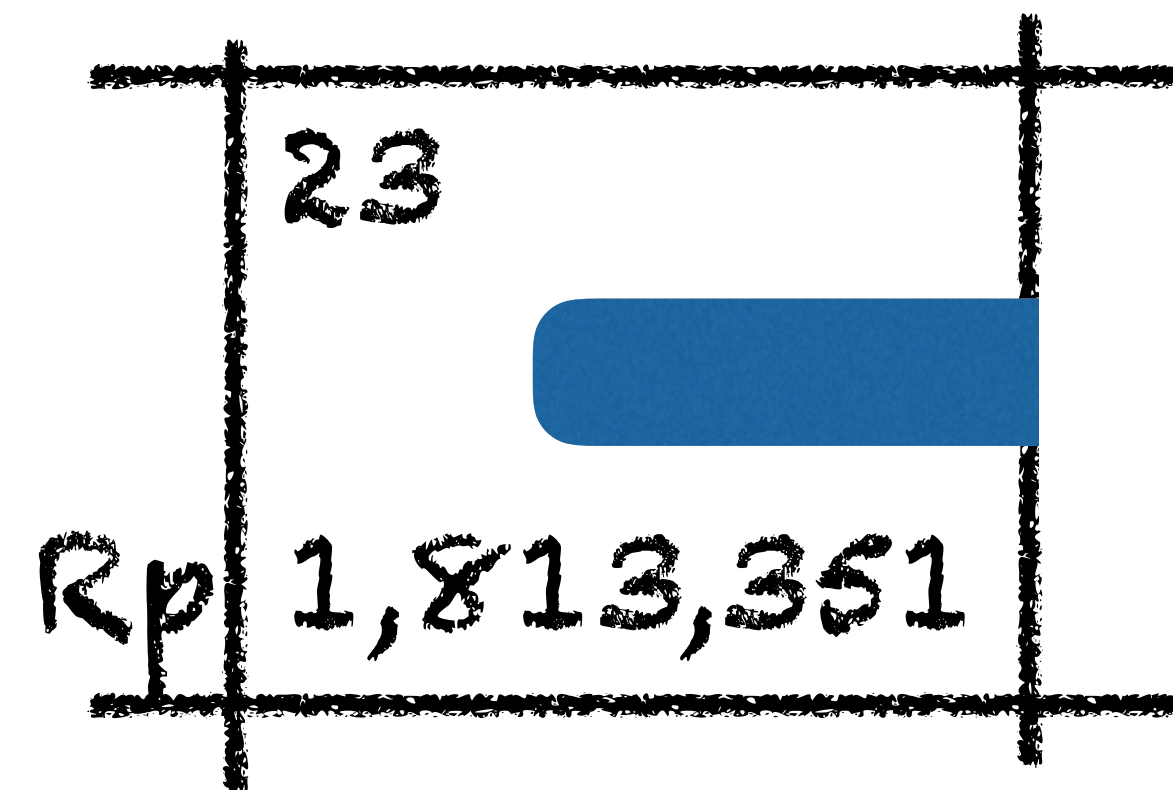
“Reservations aren’t showing up”

“Why are closed dates red?”

“The date selection is not working”

“The prices aren’t showing properly”





Conclusion

AKA. Paul tries to do some thought-leadering

Do not make any
assumptions

Localization is
not just about
date & time

Ask your users
for feedback

Log any
relevant data

Bugfixing =



Thank you!

Paul Verbeek-Mast

Senior Software Engineer

confrere.com

@paul_v_m | noti.st/paul

