Integration in Assurance App

In this lesson, we'll discuss the details of how the application we saw in the last chapter was integrated.

> **WE'LL COVER THE FOLLOWING** ^
>
> - Why monolithic backend?
> - Integration with redirects
> - Integration with links

Why monolithic backend?

This application uses a monolithic backend and frontend microservices because the **microservices** lack logic and they **are not self-contained systems**.

However, this architecture can still make sense. The frontend, at least, consists of microservices, and so **independent development of the microservices is possible**.

Also, it is possible to **use different technologies in each frontend microservice**. With a large number of available UI frameworks and the high speed of innovation, that is a clear advantage.

Also, it is probably not possible to migrate the backend into microservices. Another team might be responsible for it. Therefore, if the scope of the project is just to improve the frontend, there is no way to change the architecture of the backend.

While SCSs are generally a great idea, this example shows one exception to the rule.

Integration with redirects

If a user in the *damage* application enters a claim for a car, the user is sent

If a user in the *damage* application enters a claim for a car, the user is sent back to the overview of the car displayed on the portal. The transition from the *damage* application to the portal is implemented with a redirect. The *damage* application sends an HTTP redirect after reporting the claim, leading to the web page of the *main* application.

A redirect is a very simple integration. The *damage* application needs to know only the URL for the redirect. The portal could even pass this URL to the *damage* application to further decouple the two applications.

Such an integration is also used if a user registers with their Google account on a web page. After the user agrees to register on the Google web page, the Google page sends a redirect back to the initial web page.

Integration between the damage app and the main portal app with redirects

customer selection

mey|

Mr Peter Meyer
Lindenstrasse 11, 51598 Friesenhagen Aaseestadt
63 years born, on 07/15/1956

Search for
customer

Integration between the damage app and the main portal app with redirects

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CRIMSON — Assurance —   + NEW CUSTOMER   OPEN CLIENT   ENGLISH ▼   Suchen   Thomas Müller ∨

Lindenstrasse 11   59 years born, on 07/15/1956
51598 Friesenhagen   Married, 2
0169 1234567   kindergarten teacher

FUND FINANCES LIFE SUFFER ACCIDENT LIABILITY PROPERTY LAW MOTOR 3

consultation

PHONE *4 years ago*   Maik Thomson
New contract documents for your accommodation

PHONE *4 years ago*   Jutta Jansen
documents

E-MAIL *4 years ago*   Jutta Jansen
Updating their insurance

E-MAIL *4 years ago*   Maik Thomson
consultation

E-MAIL *4 years ago*   Jutta Jansen
Updating their insurance

∨ SEE MORE

Duration

Click on one of
their contracts

Contracts (3)   Applications (2)   Offers (5)

#	branch	contribution	action
454069088	🚗 MOTOR VEHICLES	€ 37.45	Open	Open in new tab
106303668	🚗 MOTOR VEHICLES	27,42 €	Open	Open in new tab

Integration between the damage app and the main portal app with redirects

https://crimson-portal.herokuapp.com/partners/4711/contracts/211970442

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Note that we are still in the main portal

Lindenstrasse 11
51598 Friesenhagen
☎ 0169 1234567

59 years born, on 07/15/1956
Married, 2
kindergarten teacher

FUND | FINANCES | LIFE | SUFFER | ACCIDENT | LIABILITY | PROPERTY | LAW | MOTOR

Year	20.05.2015
Acquisition UN / FH	
Chassis NR.	dj3rij35j42

season		season to	
License plate Type	schwarzes Kennzeichen	interchangeable license plates	Nein
Power kW)		Horsepower)	340
replacement engine	Nein		

Write a letter | Report damage

Clicking on this link will lead to the damage application

car		Regiokl.	Typkl.	payable amount	Insurance tax included
	liability				
	Comprehensive				
	Teilkasko				

Integration between the damage app and the main portal app with redirects

https://crimson-damage.herokuapp.com/damage/new?branch=kraftfahrt&contractId=454069088&partnerId=4711

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In the *damage* application now

Damage report: motor

insurance number	454069088
Street	Lindenstrasse 11
Postal	51598
City	Friesenhagen
district	Aaseestadt
damage	

Clicking this button will submit a damage report and redirect back to the main portal

Report damage

Integration between the damage app and the main portal app with redirects

Integration between the damage app and the main portal app with redirects
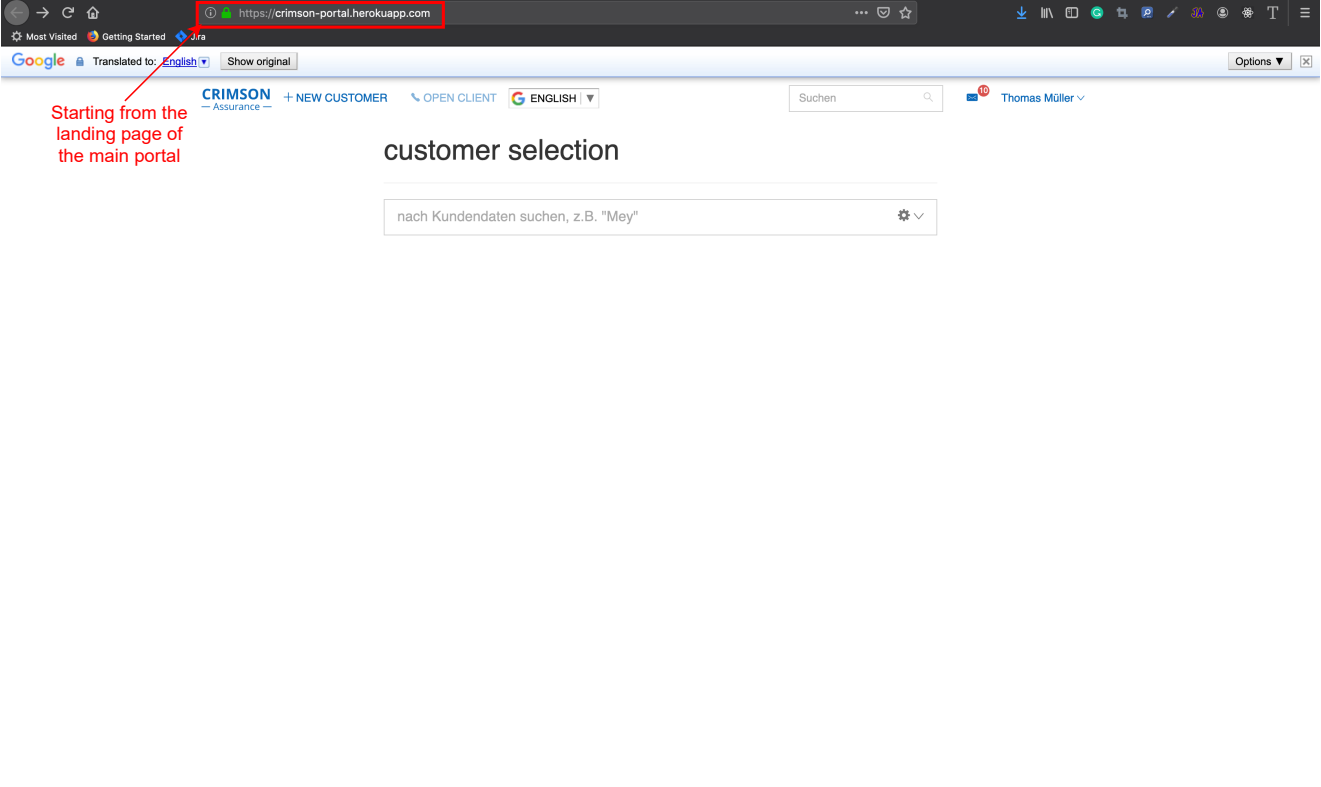
6 of 6

Integration with links

The integration of the applications is mainly done via links such as https://crimson-letter.herokuapp.com/template?contractId=996315077&partnerId=4711 to display a web page for writing a letter.

They contain all the essential information necessary for the web page to write the letter: **the contract number and the partner number**.

In this way, the *letter* application can retrieve the data from the backend simulator and render it in the web page. The coupling between the main application and the letter application is very loose; it's just a link with two parameters. The main application does not need to know what is behind the link. As a result, the *letter* application can change its UI at any time without any impact on the *portal* application.

However, all applications use a common database from the backend simulator

and are consequently tightly coupled, because a change to the data would

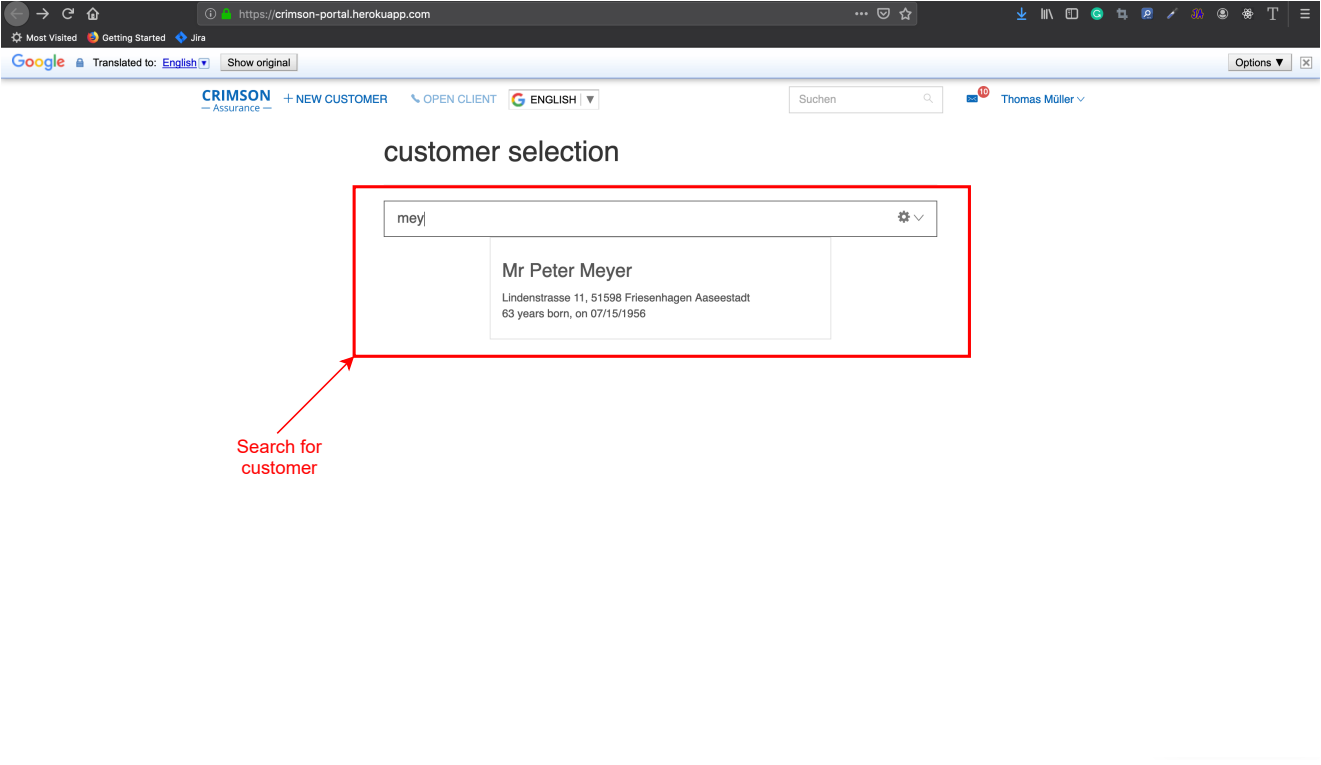affect the backend and the respective microservice

Integration between the letter app and the main portal app with links

Integration between the letter app and the main portal app with links

Slide 3

Lindenstrasse 11
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📞 0169 1234567

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kindergarten teacher

| FUND | FINANCES | LIFE | SUFFER | ACCIDENT | LIABILITY | PROPERTY | LAW | MOTOR 3 |

consultation

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consultation

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⌄ SEE MORE

Duration

Click on one of their contracts

Contracts (3) | Applications (2) | Offers (5)

#	branch	contribution	action
454069088	🚗 MOTOR VEHICLES	€ 37.45	Open · Open in new tab
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> Integration between the letter app and the main portal app with links

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Slide 4

https://crimson-portal.herokuapp.com/partners/4711/contracts/211970442

Note that we are still in the main portal

Lindenstrasse 11
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📞 0169 1234567

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Married, 2
kindergarten teacher

| FUND | FINANCES | LIFE | SUFFER | ACCIDENT | LIABILITY | PROPERTY | LAW | MOTOR 3 |

Year	20.05.2015
Acquisition UN / FH	
Chassis NR.	dj3rij35j42

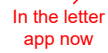|			
season		season to	
License plate Type	schwarzes Kennzeichen	interchangeable license plates	Nein
Power kW)		Horsepower)	340
replacement engine	Nein		

Write a letter | Report damage

Clicking on this link will lead to the letter application

car		Regiokl.	Typkl.	payable amount	Insurance tax included
	liability				
	Comprehensive				
	Teilkasko				

> Integration between the letter app and the main portal app with links

In the letter app now

https://crimson-letter.herokuapp.com/template?contractId=211970442&partnerId=4711

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template selection / recipient selection

Please select a template from:

- Risk accident insurance
- free text

Choose

Integration between the letter app and the main portal app with links
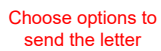
Choose options to send the letter

https://crimson-letter.herokuapp.com/template?contractId=211970442&partnerId=4711

CRIMSON
— Assurance —
+ NEW CUSTOMER   OPEN CLIENT   ENGLISH ▼   Suchen   Thomas Müller ∨

template selection / recipient selection

Please select a template from:

- Risk accident insurance
  ○ termination
  ○ General Communication
- free text
  ● VT12 Free text
  ○ VT13 Free text with reply

Choose

Integration between the letter app and the main portal app with links

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Options ▼ ⊠

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template selection / recipient selection

It is a letter with the template "VT12 Free text" be sent to the following recipients:

receiver	role	original	Copy	delivery
Peter Meyer	insured	🔵 original	☐ Copy	Printed road ⇅
Officer Stephan Hillmann	clerk	⚪ original	☐ Copy	Printed road ⇅

send

Choose options to send the letter

Integration between the letter app and the main portal app with links

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Options ▼ ⊠

CRIMSON
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The letter will be sent.
- Template ID: 20
- Policy Number: 211970442
- Partner ID: 4711
- letters:
  ○ Peter Meyer
    ▪ Goal: remote
    ▪ Original: true
    ▪ Copy: false
  ○ Officer Stephan Hillmann
    ▪ Goal: remote
    ▪ Original: false
    ▪ Copy: false

This is a link _back_ to the main portal → Back to the Contract

Integration between the letter app and the main portal app with links

In the next lesson, we'll look at other ways that apps can be integrated on the client-side integration.