

Search for information

Based Meetup – 04.12.2025



**Lessons Learned from
Building an App to deal with
bureaucracy**

Phan Van Nguyen Duc / Scalora UG





Plastic Bottles Only
Please return the lids

NO
Plastic Bags
Food Containers
Food Trays
Packing
Wrappers
Other Bits & Bobs

cans & foil

NO
Other Bits & Bobs

BROWN
GLASS
BOTTLES
AND JARS
ONLY

**Newspapers, Magazines
& Book Mail**

NO
Cardboard
Yellow Pages
Thomson Directories
Plastic Bags
Packing
Wrappers
Other Bits & Bobs

**Clear Glass
Bottles & Jars**

NO
Crockery / Plate Glass
Pyrex / Pots
Plastic Bags
Cardboard
Packaging
Refuse
Any Other Bits & Bobs

**Green Glass
Bottles & Jars**

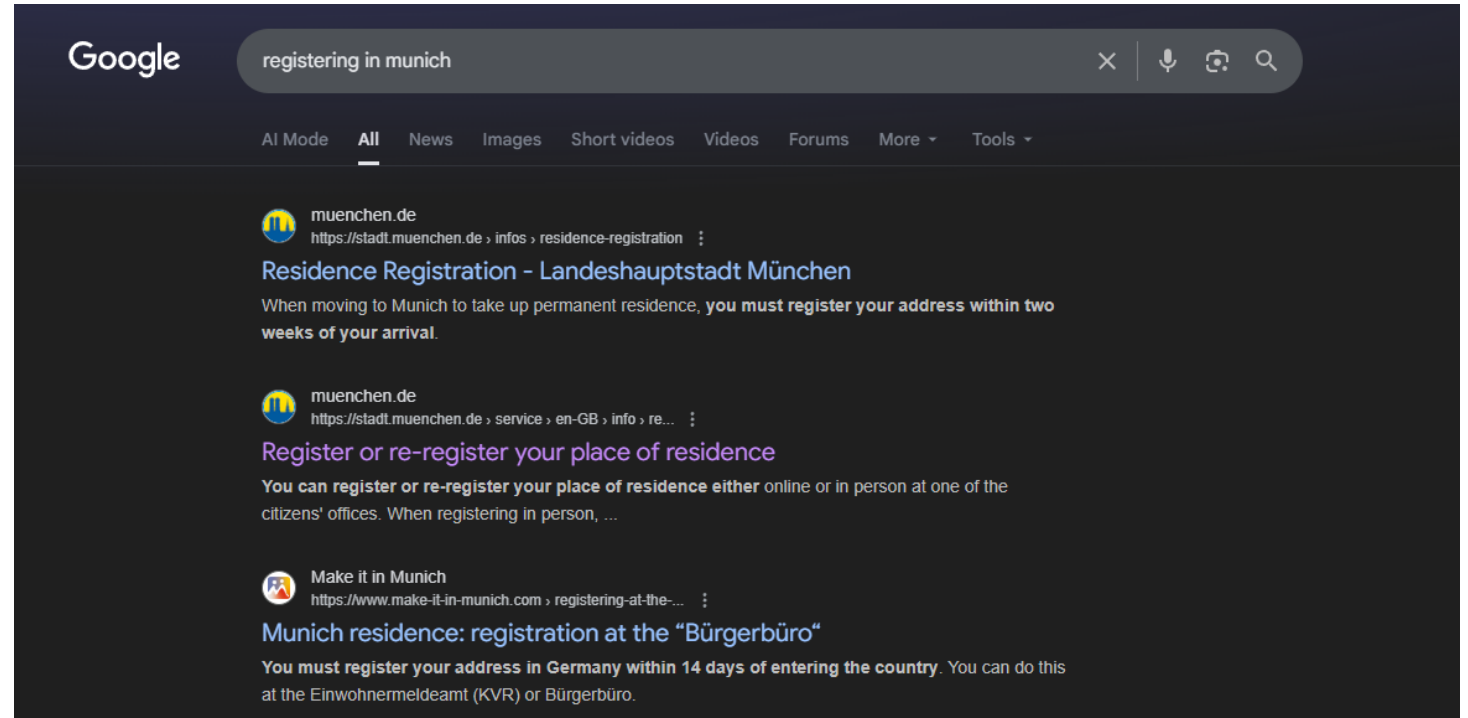
NO
Crockery / Plate Glass
Pyrex / Pots
Plastic Bags
Cardboard
Packaging
Refuse
Any Other Bits & Bobs



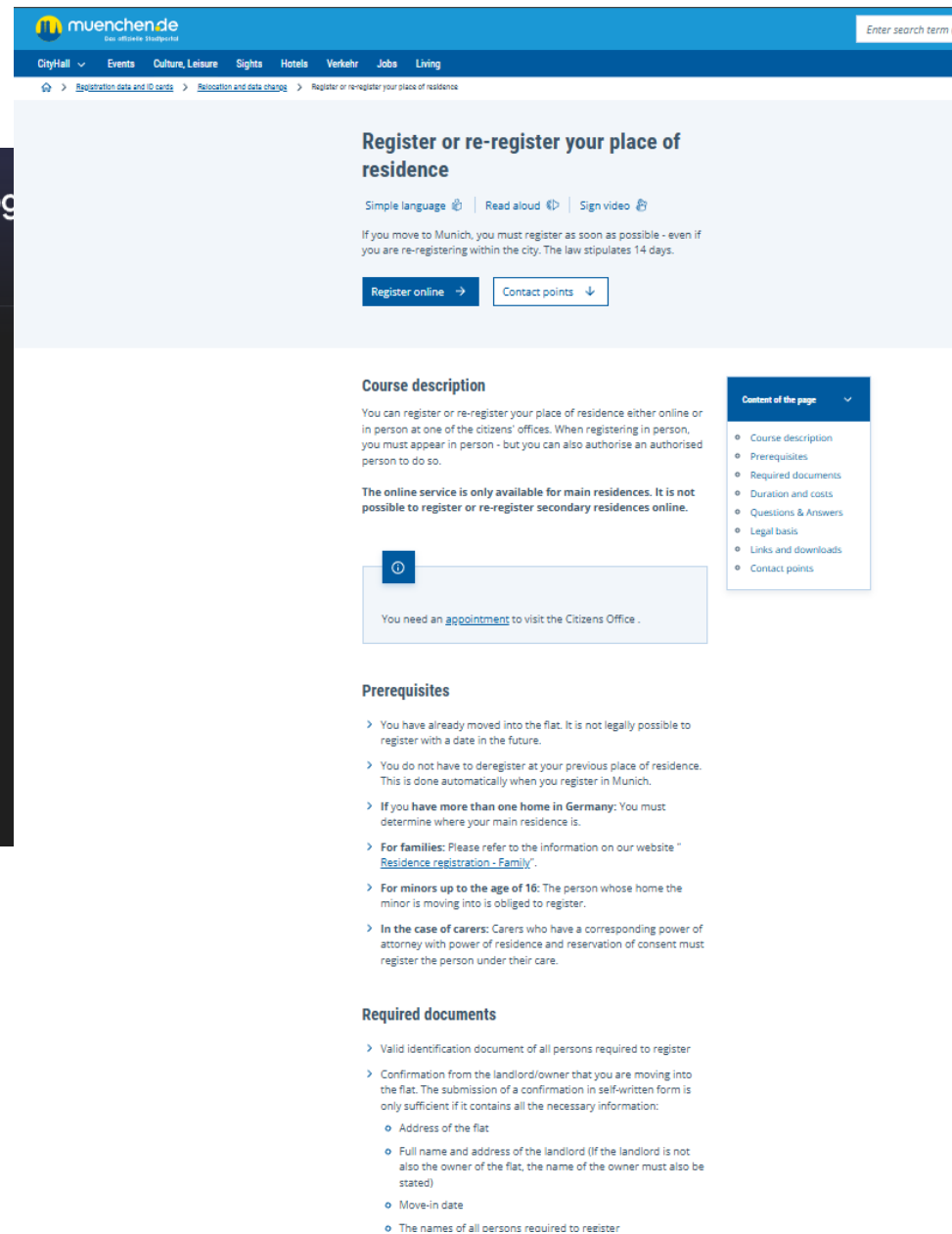
Who am I

A nephew helping his uncle

Search information



Search information



Register or re-register your place of residence

Simple language | Read aloud | Sign video

If you move to Munich, you must register as soon as possible - even if you are re-registering within the city. The law stipulates 14 days.

[Register online](#) | [Contact points](#)

Course description

You can register or re-register your place of residence either online or in person at one of the citizens' offices. When registering in person, you must appear in person - but you can also authorise an authorised person to do so.

The online service is only available for main residences. It is not possible to register or re-register secondary residences online.

You need an [appointment](#) to visit the Citizens Office .

Prerequisites

- > You have already moved into the flat. It is not legally possible to register with a date in the future.
- > You do not have to deregister at your previous place of residence. This is done automatically when you register in Munich.
- > If you **have more than one home in Germany**: You must determine where your main residence is.
- > **For families**: Please refer to the information on our website "[Residence registration - Family](#)".
- > **For minors up to the age of 16**: The person whose home the minor is moving into is obliged to register.
- > **In the case of carers**: Carers who have a corresponding power of attorney with power of residence and reservation of consent must register the person under their care.

Required documents

- > Valid identification document of all persons required to register
- > Confirmation from the landlord/owner that you are moving into the flat. The submission of a confirmation in self-written form is only sufficient if it contains all the necessary information:
 - o Address of the flat
 - o Full name and address of the landlord (If the landlord is not also the owner of the flat, the name of the owner must also be stated)
 - o Move-in date
 - o The names of all persons required to register

Search information

Enter search term (s)

CityHall Events Culture, Leisure Sights Hotels Verkehr Jobs Living

 Offizielle Website – Bundesrepublik Deutschland

 Eine offizielle Website der Bundesrepublik Deutschland

**Bund
Länder
Kommunen**

 Leichte Sprache

 Deutsche Gebärdensprache



© Senatskanzlei/Christian O. Bruch

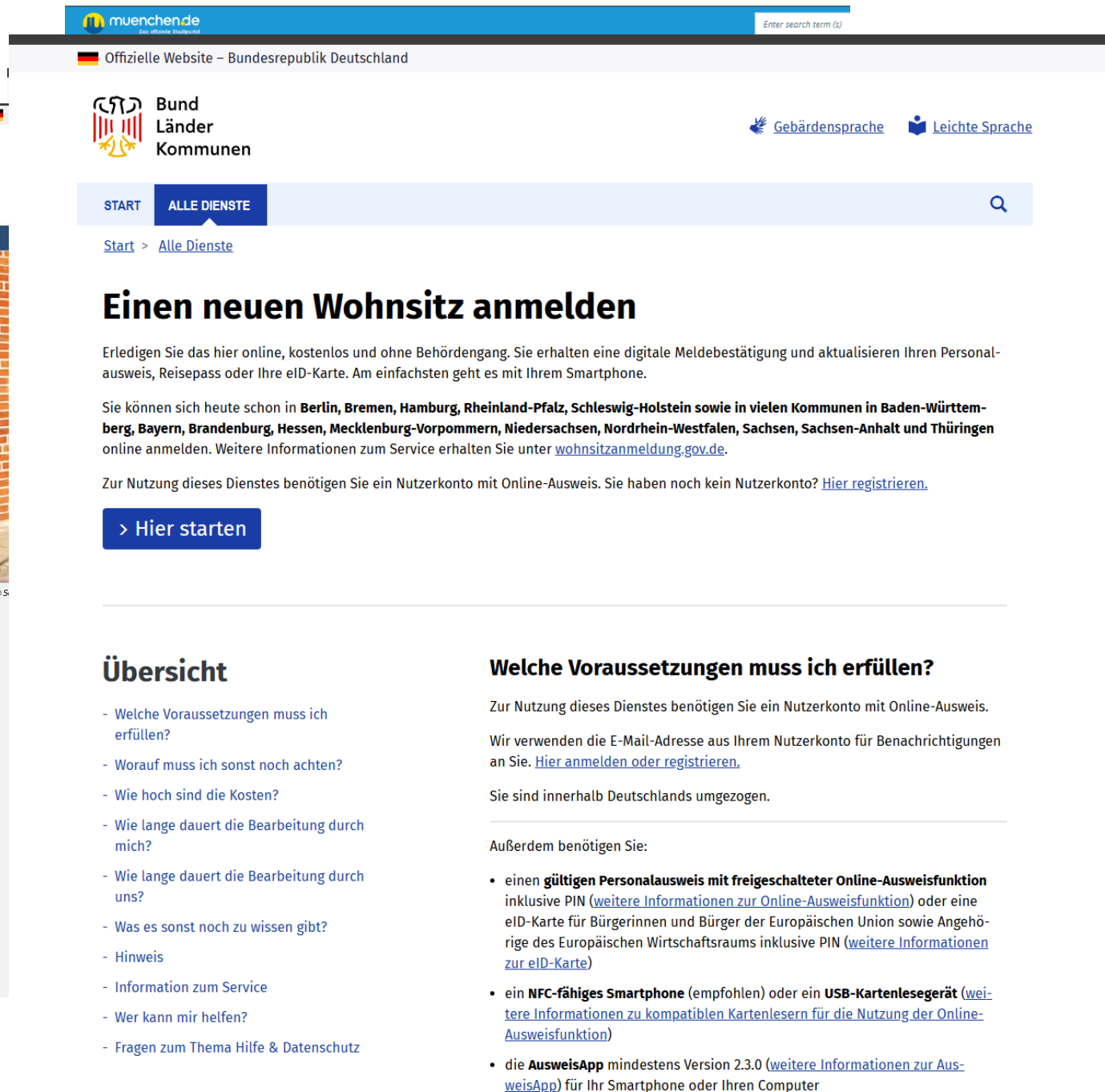
Elektronische Wohnsitzanmeldung

Sind Sie gerade umgezogen und möchten Ihren Wohnsitz als Haupt- oder alleinige Wohnung anmelden? Erledigen Sie das hier online, kostenlos und ohne Behördengang. Sie erhalten eine digitale Meldebestätigung und aktualisieren Ihren Personalausweis, Reisepass oder Ihre eID-Karte. Am einfachsten geht es mit Ihrem Smartphone. Die elektronische Wohnsitzanmeldung ist ein Service der Freien und Hansestadt Hamburg für ganz Deutschland.

Zum Online-Dienst

- die **Ausweisapp** mindestens version 2.3.0 ([weitere Informationen zur AusweisApp](#)) für Ihr Smartphone oder Ihren Computer

Search information



muenchen.de
die offizielle Website

Offizielle Website – Bundesrepublik Deutschland

Bund
Länder
Kommunen

Gebärdensprache Leichte Sprache

START ALLE DIENSTE

Start > Alle Dienste

Einen neuen Wohnsitz anmelden

Erledigen Sie das hier online, kostenlos und ohne Behördengang. Sie erhalten eine digitale Meldebestätigung und aktualisieren Ihren Personalausweis, Reisepass oder Ihre eID-Karte. Am einfachsten geht es mit Ihrem Smartphone.

Sie können sich heute schon in **Berlin, Bremen, Hamburg, Rheinland-Pfalz, Schleswig-Holstein sowie in vielen Kommunen in Baden-Württemberg, Bayern, Brandenburg, Hessen, Mecklenburg-Vorpommern, Niedersachsen, Nordrhein-Westfalen, Sachsen, Sachsen-Anhalt und Thüringen** online anmelden. Weitere Informationen zum Service erhalten Sie unter [wohnsitzanmeldung.gov.de](https://www.wohnsitzanmeldung.gov.de).

Zur Nutzung dieses Dienstes benötigen Sie ein Nutzerkonto mit Online-Ausweis. Sie haben noch kein Nutzerkonto? [Hier registrieren](#).

> Hier starten

Übersicht

- Welche Voraussetzungen muss ich erfüllen?
- Worauf muss ich sonst noch achten?
- Wie hoch sind die Kosten?
- Wie lange dauert die Bearbeitung durch mich?
- Wie lange dauert die Bearbeitung durch uns?
- Was es sonst noch zu wissen gibt?
- Hinweis
- Information zum Service
- Wer kann mir helfen?
- Fragen zum Thema Hilfe & Datenschutz

Welche Voraussetzungen muss ich erfüllen?

Zur Nutzung dieses Dienstes benötigen Sie ein Nutzerkonto mit Online-Ausweis.

Wir verwenden die E-Mail-Adresse aus Ihrem Nutzerkonto für Benachrichtigungen an Sie. [Hier anmelden oder registrieren](#).

Sie sind innerhalb Deutschlands umgezogen.

Außerdem benötigen Sie:

- einen **gültigen Personalausweis mit freigeschalteter Online-Ausweisfunktion** inklusive PIN ([weitere Informationen zur Online-Ausweisfunktion](#)) oder eine eID-Karte für Bürgerinnen und Bürger der Europäischen Union sowie Angehörige des Europäischen Wirtschaftsraums inklusive PIN ([weitere Informationen zur eID-Karte](#))
- ein **NFC-fähiges Smartphone** (empfohlen) oder ein **USB-Kartenlesegerät** ([weitere Informationen zu kompatiblen Kartenlesern für die Nutzung der Online-Ausweisfunktion](#))
- die **AusweisApp** mindestens Version 2.3.0 ([weitere Informationen zur AusweisApp](#)) für Ihr Smartphone oder Ihren Computer

Search information



Willkommen bei der BundID

Für Online-Anträge müssen Sie Ihre Identität nachweisen. Mit der BundID haben Sie verschiedene Optionen, dies zu tun. Im Video unten werden Ihnen die Funktionen und Vorteile der BundID näher erklärt.

Nutzen Sie jetzt in wenigen Schritten die BundID für Ihren Online-Antrag.

KONTO ERSTELLEN

ANMELDEN

ZURÜCK

HILFREICHE INFORMATIONEN

- [WELCHER NUTZEN?](#)
- [Fragen zum Thema Hilfe & Datenschutz](#)

Wie funktioniert die BundID?

Wenn Sie auf das Vorschaubild klicken, werden Sie zu Youtube weitergeleitet, um das Video abzuspielen.



[Ausweisfunktion](#)

- die **AusweisApp** mindestens Version 2.3.0 ([weitere Informationen zur AusweisApp](#)) für Ihr Smartphone oder Ihren Computer

Who am I



A nephew helping his uncle
& Data Scientist

Experience

- **Data Owner User Data**
 - IPPEN DIGITAL GMBH & CO. KG, MUNICH
- **Data Scientist**
 - ACCENTURE TECHNOLOGY SOLUTIONS GMBH, MUNICH
- **NLU Engineer/Chatbot Engineer**
 - HARMAN CONNECTED SERVICES, GARCHING
- **B.Sc. & M. Eng. Microsystems Technology**

Provide the
Information
People need
when they
need it


So easily usable that I can just put it in his hand be
done


Solution 1 - Chatbot

AI Agent + Web API


Techstack:


- Langchain + OpenAI
- Discord API
- SERP API

 heute um 23:21 Uhr
! I have a blue card and I lost my job. How long can I stay in Germany without a job


 **ImmiBot** BOT heute um 23:21 Uhr
Received your message. Processing...


As a blue card holder in Germany, if you lose your job, you have three months to find another job and continue to live in Germany. If you have not yet reached the eligibility for settlement. The German Blue Card is issued for the duration of your work contract with a maximum duration of four years. If your contract ends before you are eligible for settlement, you have three months to find a new job in Germany. If you are unable to find a new job within this time frame, you may need to explore other visa options or consult the authorities for further guidance.

 heute um 23:24 Uhr
! If I lose my job on the blue card, can I receive unemployment benefits while I look for a new job?


 **ImmiBot** BOT heute um 23:24 Uhr
Received your message. Processing...


Yes, blue card holders in Germany can receive unemployment benefits if they lose their job. They need to register at the Agentur within the required period. The blue card is still valid for three months in the event of unemployment and six months if the blue card holder for two years. Contact your local Agentur for more information.

 heute um 23:21 Uhr
! I have a blue card and I lost my job. How long can I stay in Germany without a job

 **ImmiBot** BOT heute um 23:21 Uhr
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Yes, blue card holders in Germany can receive unemployment benefits if they lose their job. They need to register as unemployed at the Agentur within the required period. The blue card is still valid for three months in the event of unemployment and six months if the blue card holder for two years. Contact your local Agentur for more information.

13. November 2023

 13.11.2023 21:10
!How long do I need to wait to apply for EU Permanent Residence?

 **ImmiBot** BOT 13.11.2023 21:10
Received your message. Processing...

In order to apply for EU Permanent Residence, you need to have lived in the EU country legally for a continuous period of 5 years. There is no specific waiting period mentioned for applying for EU Permanent Residence. However, it is important to note that the processing time for the application may vary depending on the country. It is recommended to contact the immigration office or embassy of the specific EU country you are interested in for more information on the requirements and processing time.

 1

Issues - Chatbot

- Problems:
 - You only ask about things you know about but thats not enough
 - GEZ, Taxes, health care/health insurance, free education etc...



Issues - Chatbot

- Problems:
 - You only ask about things you know about but thats not enough
 - GEZ, Taxes, health care/health insurance, free education etc...
 - Relevance measured by the ranking of the search engine, returns the most SEO optimised content not the most useful content
 - Most of the time it's the same questions

→ Solution:

- App with reliable sources and some other things like to do lists and translation feature

Naturalization

- ✓ Years of experience in Immigration law
- ✓ Complete handling by a licensed lawyer
- ✓ Specialized in Naturalization in Germany

☐ **One-time** **2.490,00€**
One-off payment

☐ **2 months** **1.249,00€ /month**
Installment payment for 2 months

☒ **12 months** **249,00€ /month**
Installment payment for 12 months

Add to shopping cart

Further information

PayPal Mastercard VISA S+PA

Google ★★★★★
4.9/5 - 401 reviews

All prices incl. 19% VAT.

Settlement permit

- ✓ Years of experience in Immigration law
- ✓ Complete handling by a licensed lawyer
- ✓ Specialized in permanent residence rights

☐ **One-time** **2.490,00€**
One-off payment

☐ **2 months** **1.249,00€ /month**
Installment payment for 2 months

☒ **12 months** **249,00€ /month**
Installment payment for 12 months

Add to shopping cart

Further information

PayPal Mastercard VISA S+PA

Google ★★★★★
4.9/5 - 401 reviews

All prices incl. 19% VAT.

New solution

- Lets make an app
 - With selected sources
 - Improved information retrieval system, RAG + Knowledge graph

Solution 2 - App

9:41

Your Personal Info

Registered in Munich?

☒ Yes ☐ No

Surname

Given name(s)

Family status

Visa status

Nationality

select

☒ Save information on this device

Proceed

**Sensible Daten sicher lokal
gespeichert**

9:41

Describe Your Case

I want to look for a job

I'm moving to Munich for a new Job

Put in keywords or a short description to describe your case that we you want assistance.

e.g. I have blue-card and get a new passport.
How can I change it?

Proceed

Einfache Bedienung

9:41

Your Personal To-Do List

Search

☐ Job application

Residence permit

With a visa or residence permit to look for a job for skilled workers, you can stay in Germany for up to 18 months to look for a job, depending on your training/previous stay in Germany.

Processing time:
10-12 weeks

Fees
Adults: 100 Euro
Minors: 50 Euro

Tel: 123456
E-mail: john.smith@example.de
Website: example.de

☒ Certify your university degree

☐ Completed [registration form](#)

☒ Valid passport or passport substitute

☐ Proof of health insurance

☒ Residence Registration

☒ Create Bankaccount

Personalisierte To-Do Liste

9:41

Your Personal To-Do List

Search

☐ Job application

Certify your University degree

When submitting foreign academic certificates in Germany, ensure you provide:

1. Certified Translation: Your documents must be translated into German or English by a certified translator.
2. Recognition and Verification:
 - Extract from [Anabin](#): This database confirms if your university and degree meet German standards. You'll need an "H+" rating for both.
 - Certificate Evaluation from ZAB: The Central Office for Foreign Education assesses and recognizes foreign degrees in Germany. These steps help validate your qualifications for academic or professional use in Germany.

Close

☐ Proof of health insurance

☒ Residence Registration

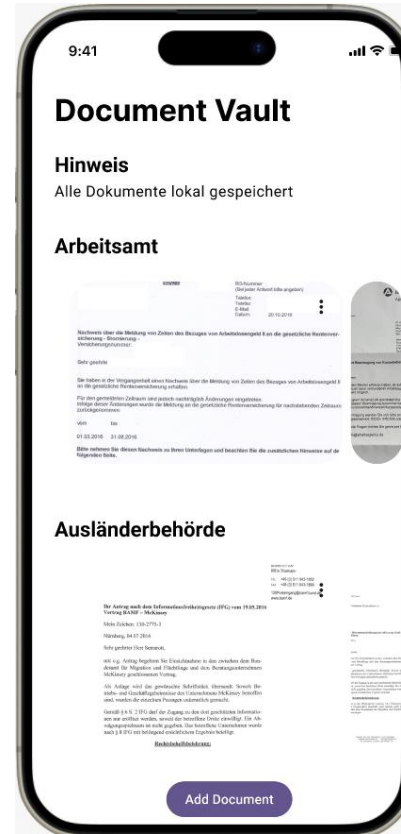
☒ Visa application

**Informationen zur richtigen
Zeit am richtigen Ort**

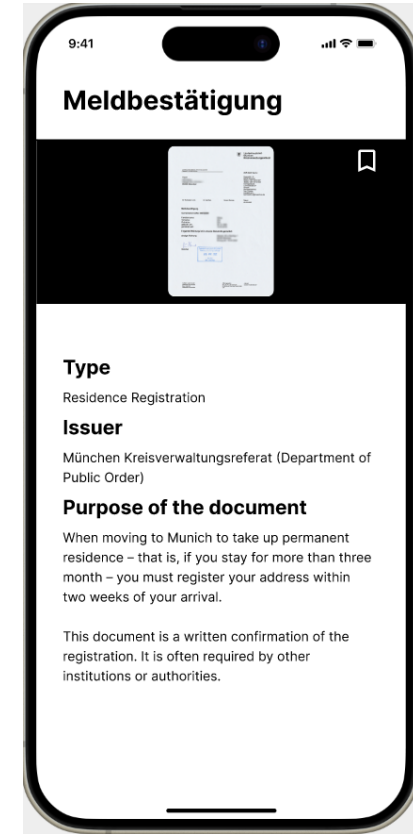
Solution 2 - App



Hilfe beim alltäglichen
behördlichen Briefwechsel



Einfache Organisation aller
Dokumente in einer App



Integrierte Übersetzungsfunktion und Erklärung

Problems

RAG:

- Retrieving the right information chunks

Vector similarities

- Model: text-embedding-ada-002
- Cosine-similarity

SEMANTIC SIMILARITY RESULTS

Reference Text:

You do not need an entry visa in order to study in Germany if you are a citizen of an EU country, Iceland, Liechtenstein, Norway or Switzerland. You do not need an entry visa if you come from Australia, Andorra, Brazil, El Salvador, Honduras, Israel, Japan, Canada, Monaco, the Republic of Korea, New Zealand, San Marino, the United Kingdom of Great Britain and Northern Ireland or the United States of America either.

	Nationality	Query	Similarity Score
0	Australian	I'm Australian and I want to study in Germany	0.836554
1	American	I'm American and I want to study in Germany	0.823242
2	Vietnamese	I'm Vietnamese and I want to study in Germany	0.815944
3	Japanese	I'm Japanese and I want to study in Germany	0.815351
4	Korean	I'm Korean and I want to study in Germany	0.813484

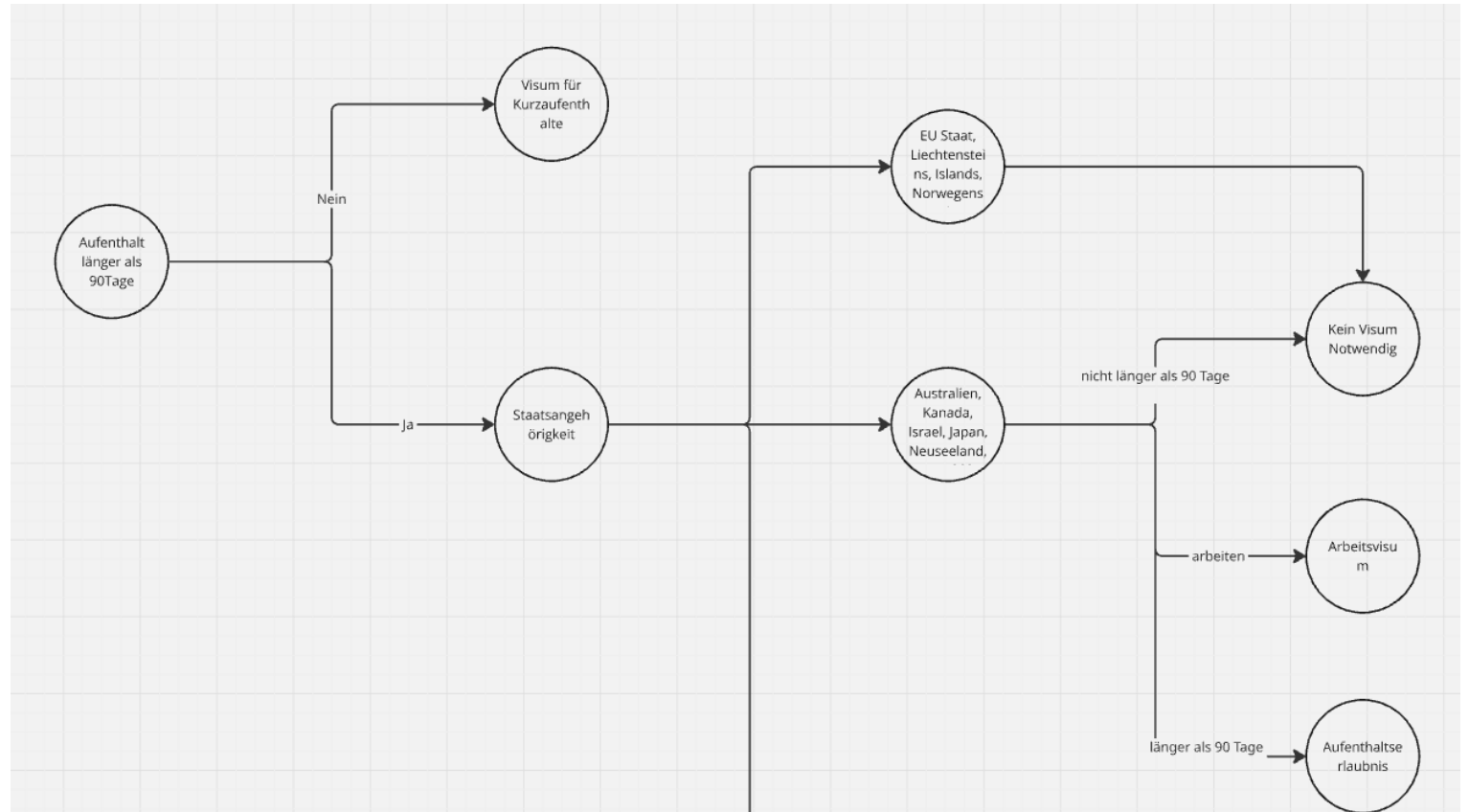
Problems

RAG:

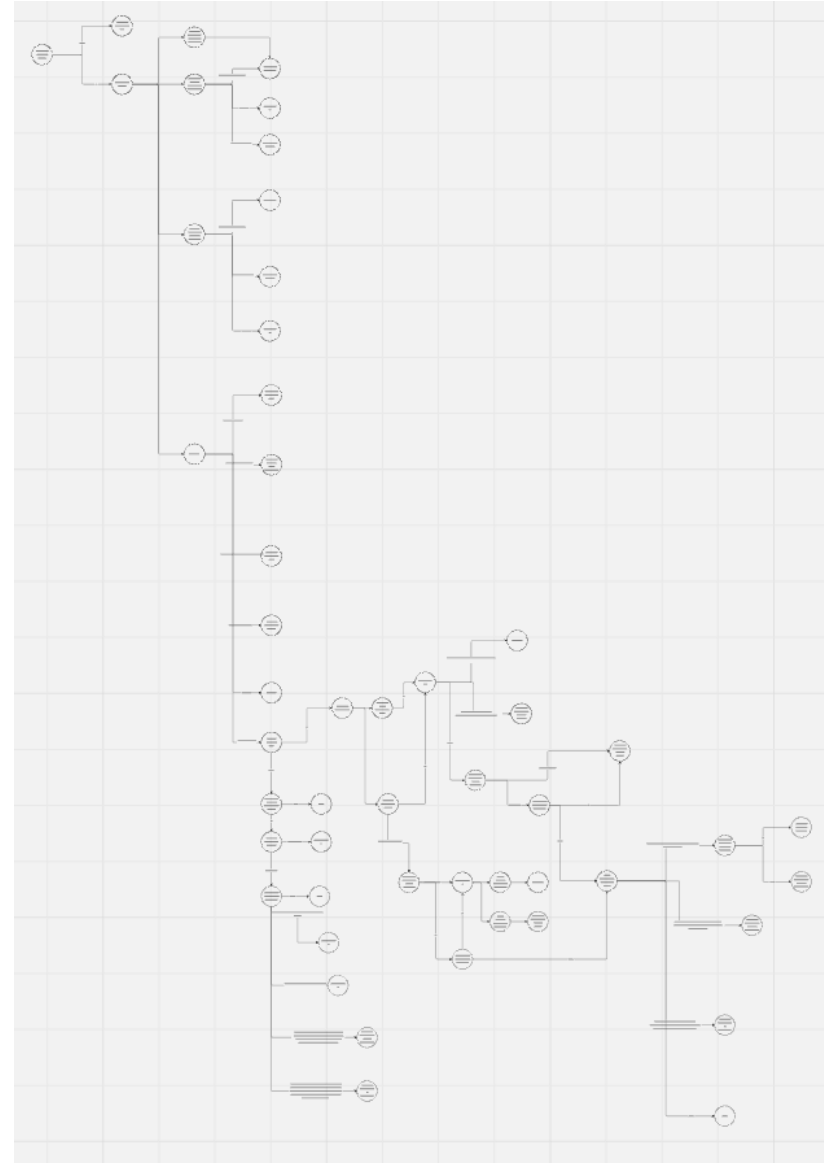
- Semantic vectors are too similar
- Chunking of the documents if there are lot of cross references, e.g. <https://www.make-it-in-germany.com/en/visa-residence/skilled-immigration-act>

-> Knowledge Graph to the rescue, it should provide related information

Knowledge Graph – Modeling the Process

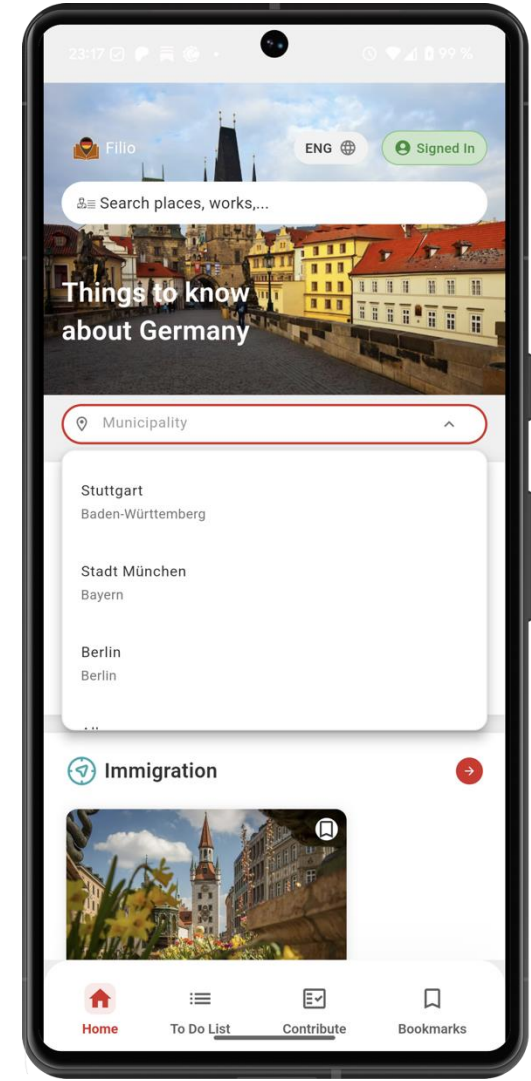
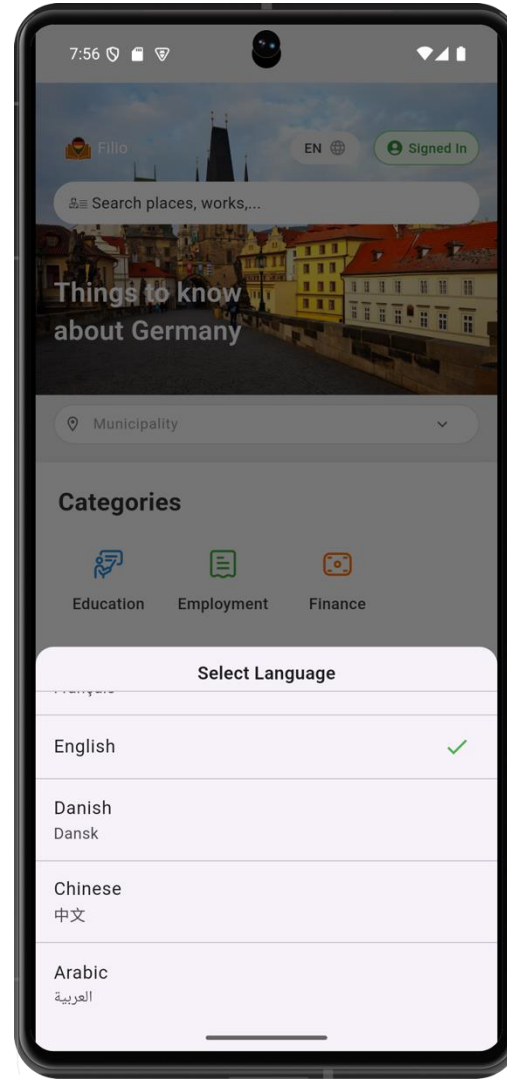
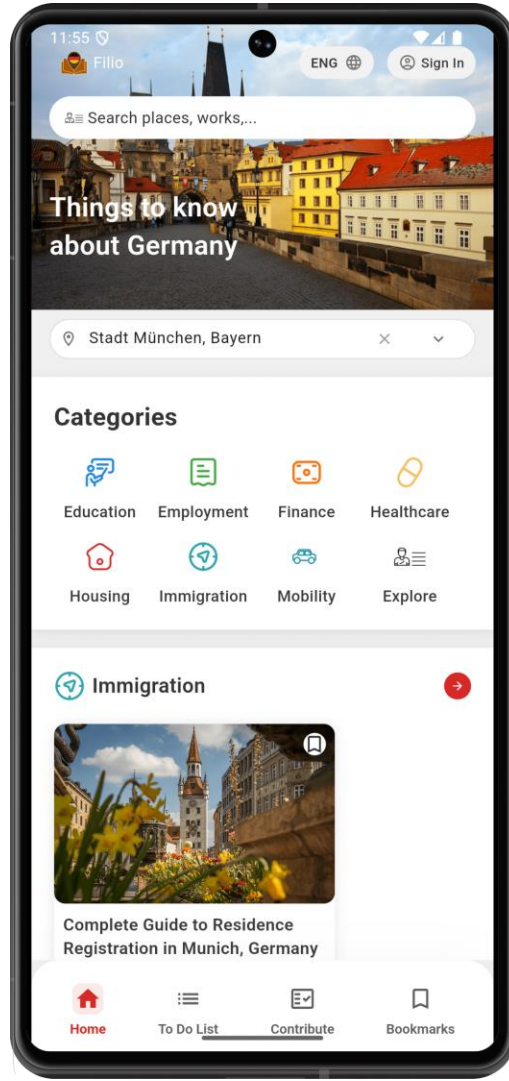


Knowledge Graph – Modeling the Process



Knowledge Graph – Problems

- Outcome is not deterministic, different processing time, required documents and decisions
- It depends on the state, city and the clerk processing your documents



Crowd sourced information

Information from people
who walked in your shoes

The image shows a smartphone screen displaying the 'Submit Fact' form in the Scalora app. The status bar at the top shows the time 13:51, LTE+ signal, and 87% battery. The app's navigation bar at the bottom has four icons: Home, To Do List, Contribute (highlighted in red), and Bookmarks. The form itself has a title bar with a back arrow and 'Submit Fact'. It contains several sections: 'Municipality' with a dropdown menu showing 'Stadt München, Bayern'; 'Topic' with a text input field containing 'Naturalisation Process'; 'Organisation (optional)' with a dropdown menu showing 'Ausländerbehörde München' and a 'Remove' link; and 'Content' with a large text area containing the text 'I applied for the German citizenship 19 months ago. Heard nothing from them and no replies to my emails.' Below the text area is a character count '104/1000'. At the bottom of the form is a red 'Submit Fact' button and a 'Reset Form' link.

13:51 LTE+ 87 %

← Submit Fact

Municipality

Stadt München, Bayern X v

Topic

Naturalisation Process

Organisation (optional) X Remove

Ausländerbehörde München v

Content

I applied for the German citizenship 19 months ago. Heard nothing from them and no replies to my emails.

104/1000

Submit Fact

Reset Form

Home To Do List Contribute Bookmarks

Real submission

Einbürgerung (2023–2025)

- **12/2023 – Eligibility & Application**
- Quick online eligibility test (muenchen.de)
→ *Eligible to apply*
- Application submitted via BayernPortal,
€255 fee paid
- **Expected:** Kundennummer + case officer
contact
- **Reality:** Never received → *Mistake 1: I
didn't notice this was missing*

Real submission

- **2023–2025 – 19 Months of Silence**
- No communication at all
- Only way to reach them: Kontaktformular (requires Kundennummer → I didn't have it)
- Automated replies but **no human response**

Real submission

- **10/2025 – First Breakthrough**
- Learned from friends: applications can stall for 19–25 months
- Tried calling the *Servicestelle* → many attempts until someone confirmed: **“Your application is in Bearbeitung”**
- Finally received my **Kundennummer**

Real submission

- **11/2025 – Finally Reached My Case Officer**
- Sent another Kontaktformular (now with Kundennummer)
- Called again → told to email the generic address
- Then: personal Gmail suddenly gets a reply from my case officer
 - He had emailed me on **01.07.2025**
 - I never received anything in the BayernPortal inbox
 - He will send documents by post

Real submission

- **12/11/2025 – Documents Arrive**
Includes: reminder letter, copy of the missing email, declarations, update checklist, employer confirmation.
- **14/11/2025 – Resolution**
- Sent everything back by email
- Officer confirms **BayernPortal messages often fail**
- Their fallback: if no reply for months
→ **send a “reminder” by post**

- Dashboard
- Generate Article
- Sources
- Facts
- Purposes
- Articles
- Analytics

Article Purposes

-
- ☐

residence permit in Germany

0 facts linked
- ☐

Guide on what do after arriving in Germany

0 facts linked
- ☐

Guide on finding accommodation in Germany

0 facts linked
- ☐

Guide on obtaining German citizenship

0 facts linked
- ☐

Tips and resources for job seekers in Germany

0 facts linked
- ☐

Introduction to living in Germany, covering culture, language, and daily life

0 facts linked
- ☐

Guide on health insurance and other necessary insurances in

0 facts linked

Workspace

Facts & Sources

Help immigrants understand the Health Insurance System in Germany. Keep the language easy to understand.

0 facts linked

☒

Privately insured people must initially pay their medical bills themselves and then receive a refund from their insurance company.

⋮

☒

Children are not covered by private health insurance free of charge and require separate premiums.

⋮

☒

Once you have opted for private health insurance, it is difficult to switch to statutory health insurance.

⋮

☒

Private health insurance premiums increase with age.

⋮

☒

Health insurance is required even if you are not employed.

⋮

☒

Children, spouses and registered partners can usually be insured together through family insurance with statutory health insurance.

⋮

☒

Apprentices, students and interns are generally required

⋮

Generate Article

☒ Purpose selected

☒ 20 facts linked

Generate Article

Linked Facts Preview

These facts will be included in your generated article.

1. Fact 49

From sources

2. Fact 50

From sources

3. Fact 51

From sources

4. Fact 52

From sources

5. Fact 53

From sources

6. Fact 54

From sources

7. Fact 55

From sources

8. Fact 56

From sources

Scalora UG (haftungsbeschränkt)

Thanks to
my
supporters





Madeline Yin

Data Engineer



Denis Ott

DevOps Engineer



Zhe Wang

Dialog Engineer



Vijay Ravichandran

Ex. CTO - AI Speech



Firas Esbai

Machine Learning & Data Engineer



Hussein Elwy

Data Engineer



Sahithi Akella

Tech Lead - Chatbot Development



Mihaela Coman

Product Owner – Augmented Reality



Nataliia Sherstneva

NLP Engineer



Dr. Naveen Desiraju

Projekt Manager

Special Thanks



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Daniel Keddi

Regierungspräsidium Karlsruhe
im Bereich
Flüchtlingsangelegenheiten/Asyl

If you have
any content,
write me
please

Info@scalora.ai