

Main

Friday, 14. May 2021

14:22

<https://rasa.com/showcase/multilingual-demobot/>

Multilingual demobot.

- Supports multiple models and languages
 - Easy to spin up (Docker) and deploy (automated CI)
 - Makes it easy to build your own model (training, interactive learning, custom actions)
 - Continuously updated to run on the latest Rasa stack
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- Valid keele ning boti suhtlus keel ise muutub.
 - Kerge on treenida uusi keeli koos custom mudelitega
 - Kui su mudel töötab tavalise Rasa NLU'ga siis töötab ka siin
 - Antud lahendus on saanud RASA ametliku toetuse, ning selle on viidatud õpetus video analüüsi.

Antud mudel töötab Heroku peal

Miinused:

- Running multiple web servers can be a problem when it comes to hosting. Multiple web communication via HTTP in a Heroku cluster is only allowed with pricier plans.
(Kui me ise hostime, siis pole probleemi, kuna me nkn hostime dockeri konteinerites.)
- Another issue is the lack of support for multiple models in the current version of Rasa
your bot in two languages. As it stands now, you need to spin up an additional core service model. With a little bit of an extra effort, it is perfectly possible to enable multiple models by [BotFactory](#) if you are interested in details.

[Git](#)

Official [Video](#) by RASA on the topic of multilingual chat bots.:

Option 1 **(A LOT EASIER)**

- Separate subsystems for each language

Lugemismaterjal:

- Uue keele mudeli loomisel tuleks silmas pidada NLU Andmete loomise [nõuandeid](#).
- Rasa [Blogi](#) postitus teemal: A Multilingual DemoBot, [rasa](#)
- Huvitav [Blogi](#) teemal: Building a multi-lingual chatbot
- Rasa Foorumi postitus teemal: [How can i make multi languages?](#)

NOTES

Nice question. (And this is something I'm working on.)
The good thing about the embedding intent classifier is that it doesn't care about what language it works on. So, in theory, it should work for all languages.
There are 2 approaches that you can use to support multiple languages:
1. make separate intents for them (e.g. hello_en, hello_fi, hello_sv)
2. create a language detector and handle them all in one intent (e.g. hello)
If you're using default utter_ methods, method 1 makes more sense. You can use hello_en as intent name and utter_hello_en to generate the response.
Method 2 makes more sense when you actually have a lot of intents for each language and you want to generate your response (and of course, you handle the language detection yourself).
All in all, you *can* implement multi-language chatbot.

tes. Vaata alumist video

eb processes or

(1.6.0). Suppose you train a model on a server to serve your other models with Rasa's SDK. Check

What you want is a custom language detector that finds out what language the input is in. You can include the language-detector as a custom component in your RasaX configuration and make it fill a language slot. Then, you can use this slot value as a feature for your classifier to respond accordingly.



deployable on Heroku

using Rasa and Chatfuel

[language rasa chatbot having at least two](#)

on too.)

fier is that it doesn't have any assumptions

should work with every language.

rt multi-language intents.

hello_xx, for hello spoken in 2 languages)

in custom action

may make more sense because you can just

et back the response.

ave multiple variables that you want to use to

e them in custom actions).

ots in rasa!

which language you're using. You

the beginning of your pipeline and

input in your custom actions and

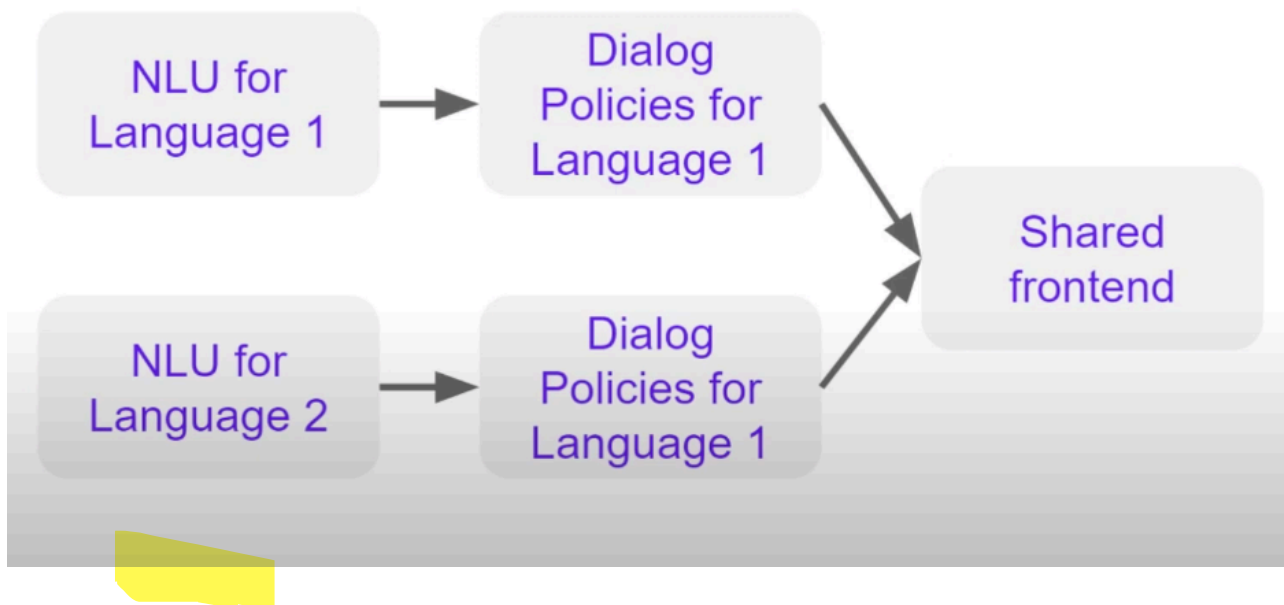
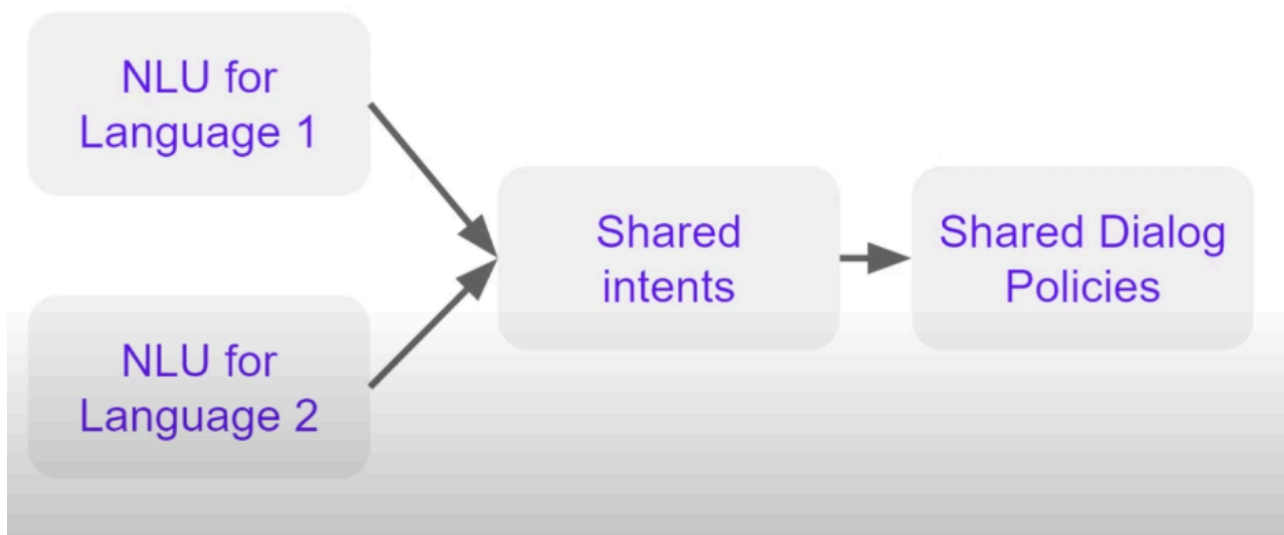
Custom actions

Rasa action server

Hello_eng

ENG



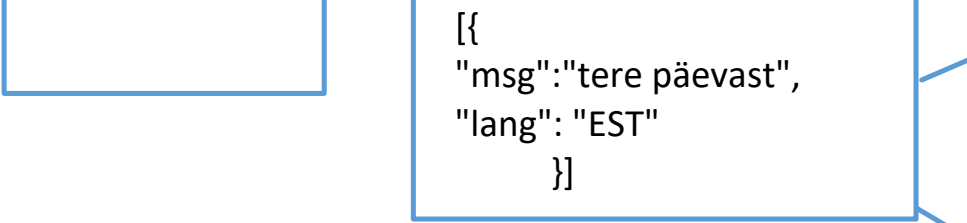


Option 2 **NJOPE**

- Single system that can handle input in multiple or mixed languages

Referred to as code-switching

she is the daughter of ceo, वह यहाँ दो दिन के लिए आई है
मुझे अमेरीका में चार साल हो गए, but I still miss my country



```
[{  
  "msg": "tere päevast",  
  "lang": "EST"  
}]
```

VS

Using google translate both ways (i wouldnt reccomend):

- Using it to detect the language
- Translate input into rasa model
- Translate rasa response into original lang

NB: automaatset lang detectionit dsaab kindlasti implementeerida a
Viimaseks etappiks.

Eialgu piisab nuppuga valimisest.



EST

Hello_est

ga selle peaks jätma

मुझे मेरा current account balance जानना है
भारत में popular free virtual credit card services कितनी हैं

अपने budget के अनुसार investments कर सकते हैं
class और object के बीच relationship क्या है

System Needs to handle both languages at the same time

Ways to do this

Options for code switching:

- Train tools on a code switching corpus
- Use token-level language identification & then apply the relevant tool on a token level
- Use a token-level intermediate form, like GOLD tags or UniMorph

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Less to build and maintain

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- Harder to find data, to train the bot. Compared to single language data
- Combining multiple systems can be tricky
- Special symbols such as chinese or hindi might prove difficult
- Bots have a lot of trouble differentiating closely related languages (EST VS FIN)

● It's generally harder to find

data for code switching

data for code switching
between two (or more)
specific languages

- Combining multiple
subsystems can be tricky
- You may need to handle
multiple scripts (which is
not trivial)

