

# PPG HOME SERVICE

LARGE LANGUAGE MODELS

**DADS 5001 , Data Analytics and Data Science Tools and Programming.**

National Institute of Development Administration (NIDA)

# OVERVIEW

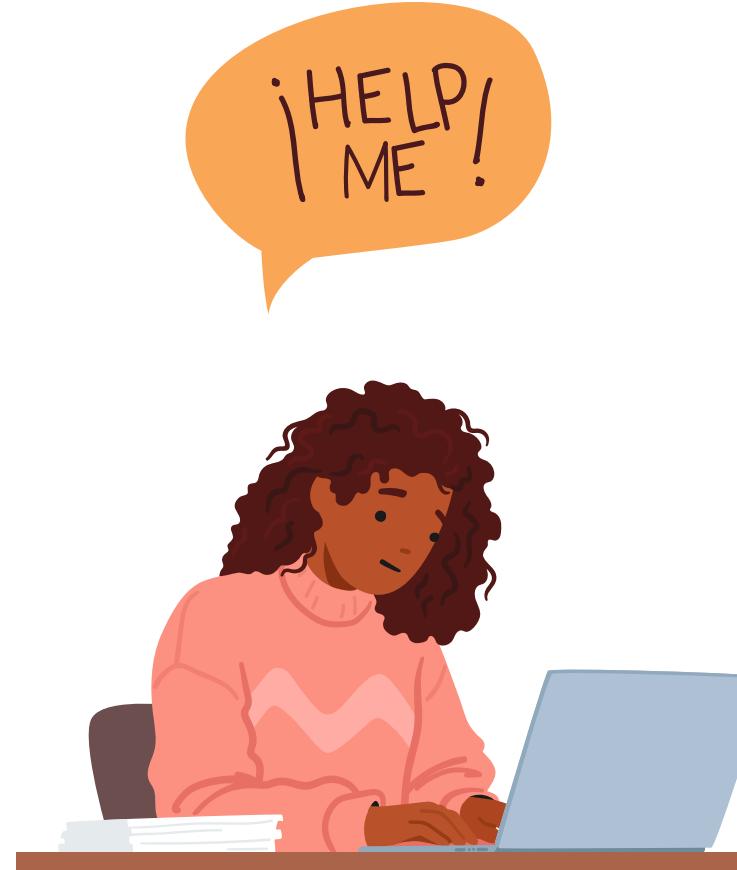
In this presentation, we will walk through:

1. Issues
2. Motivation & Objective
3. API's Background
4. Methodology
5. Dash
6. Application's Workflow

Feel free to ask any questions, we are gladly to answer them!



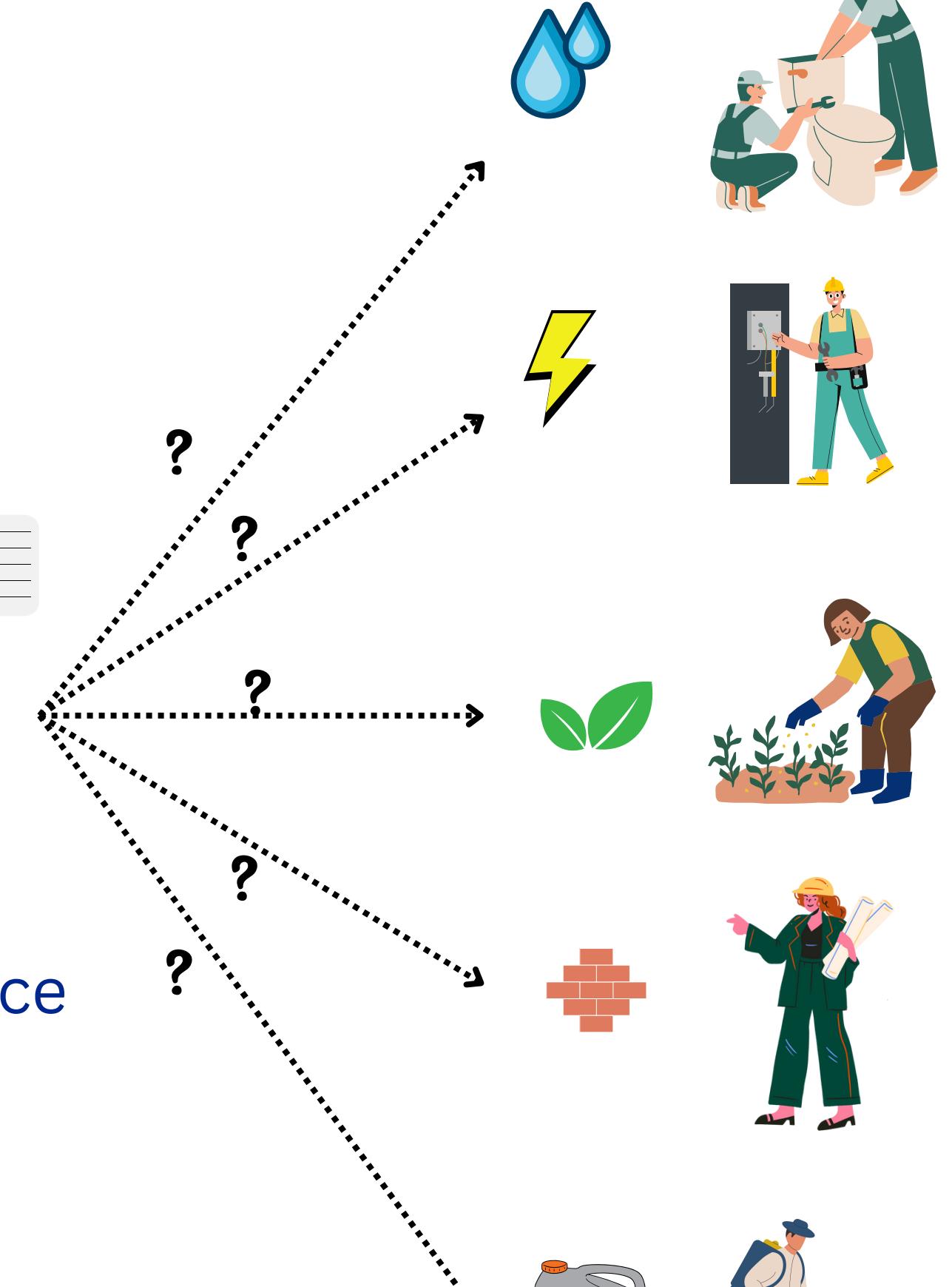
# ISSUES



clients



customer service



# MOTIVATION & OBJECTIVE

to improve our service by understanding the customer's needs faster, so we can precisely execute the plan for our team. (less errors)

①

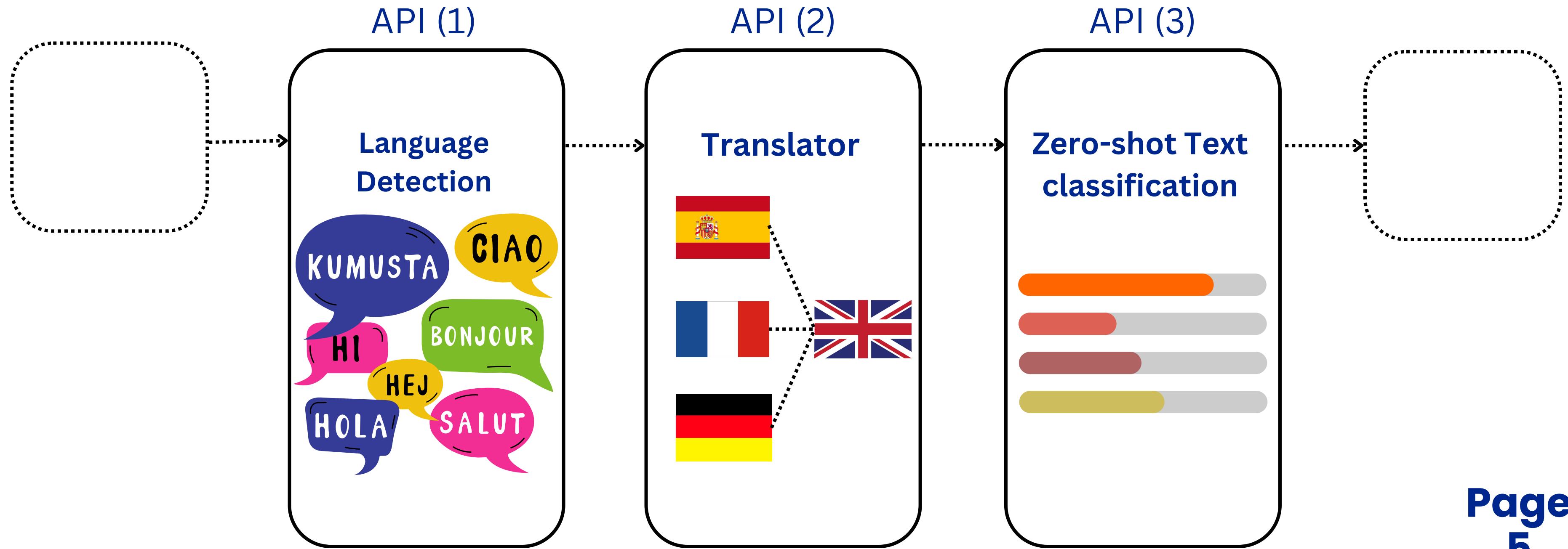


02

by doing so, we will increase the customer's satisfaction from faster service and decrease the cost of traveling and tools.



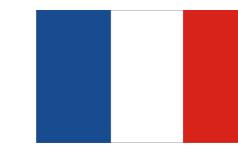
# API'S BACKGROUND overview



# API'S BACKGROUND (1)

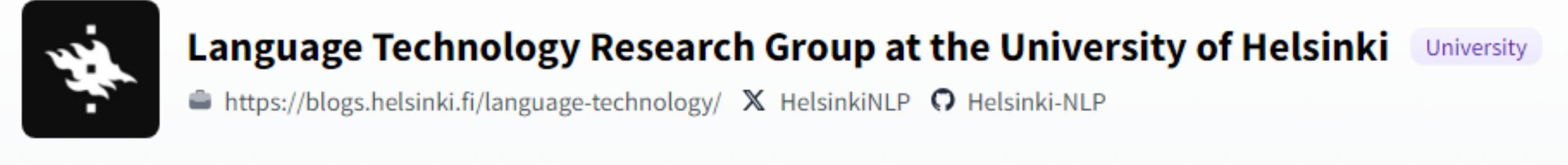
**pemistahl/lingua-py: The most accurate natural language detection library for Python, suitable for short text and...**

The most accurate natural language detection library for Python, suitable for short text and mixed-language text - pemistahl/lingua-py



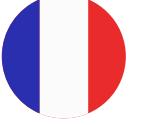
언어 keel  
sprache ภาษา  
mutauro ມາຫາ  
بازار llenguatge  
bahasa 言語 luqadda MOBY  
tungumál ຖານ  
Gλώσσα lingvo ລົງຈູນ  
Lingua ภาษา language taal  
ଓବ୍ରାତ୍ରି ଶବ୍ଦକାଳୀ  
इंગ୍ରଜୀ ภาษา gjuhe  
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# API'S BACKGROUND (2)



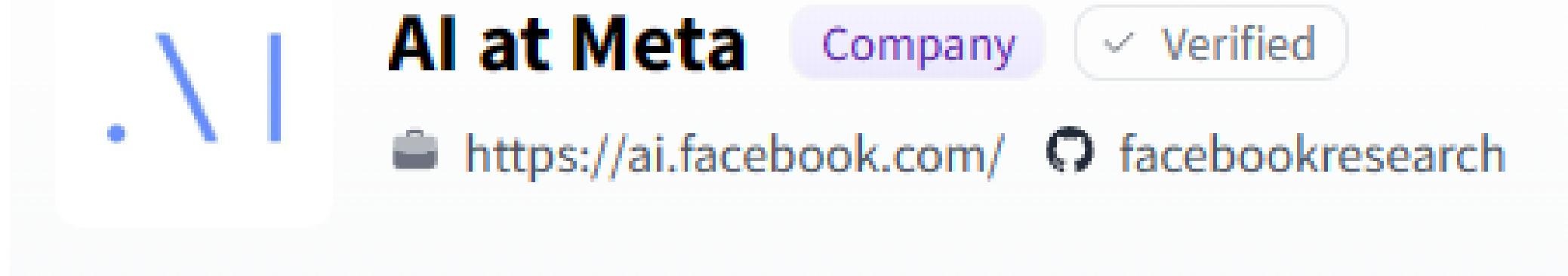
The screenshot shows the official website of the Language Technology Research Group at the University of Helsinki. The header features a stylized white bird logo on a black square background. The main title is "Language Technology Research Group at the University of Helsinki" in bold black font. Below the title, there is a purple "University" tag. Underneath the title, there is a link to the blog: "https://blogs.helsinki.fi/language-technology/" and social media links for "HelsinkiNLP" on X and "Helsinki-NLP" on LinkedIn.

## Helsinki-NLP

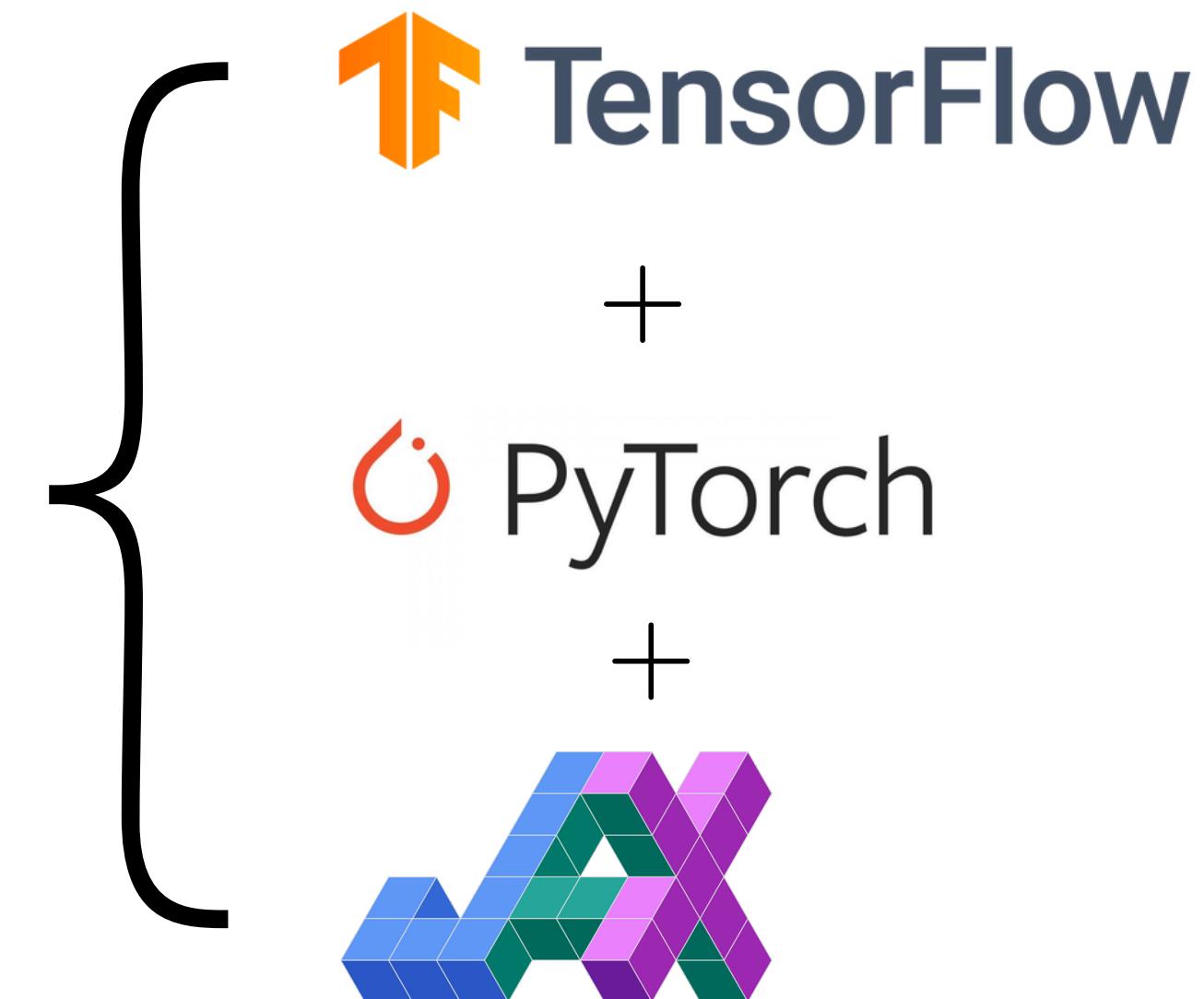
	/opus-mt-es-en	Espanol to English translator	<a href="https://huggingface.co/Helsinki-NLP/opus-mt-es-en">https://huggingface.co/Helsinki-NLP/opus-mt-es-en</a>
	/opus-mt-fr-en	French to English translator	<a href="https://huggingface.co/Helsinki-NLP/opus-mt-fr-en">https://huggingface.co/Helsinki-NLP/opus-mt-fr-en</a>
	/opus-mt-de-en	German to English translator	<a href="https://huggingface.co/Helsinki-NLP/opus-mt-de-en">https://huggingface.co/Helsinki-NLP/opus-mt-de-en</a>



# API'S BACKGROUND (3)



facebook/bart-large-mnli



[https://huggingface.co/facebook/bart-large-mnli?](https://huggingface.co/facebook/bart-large-mnli?candidate_labels=connection%2C+issues%2C+internet%2C+not+urgent%2C+urgent&multi_class=true&text=i+can%27t+access+to+facebook)

candidate\_labels=connection%2C+issues%2C+internet%2C+not+urgent%2C+urgent&multi\_class=true&text=i+can%27t+access+to+facebook

## ⚡ Inference API ⓘ

⌚ Zero-Shot Classification

Examples ▾



help me cut the tree branches

Possible class names (comma-separated)

waterworks, electrical, structural, arborist, pesticide

Allow multiple true classes

Compute

Computation time on cpu: cached

arborist	0.890
structural	0.046
electrical	0.023
pesticide	0.021
waterworks	0.020

</> JSON Output

Maximize

# METHOD

with zero-shot classification, we can extract and classify customer complaints by set-in-advance class names. the class names are departments in the company.



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Page  
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# CLASS NAMES FOR API



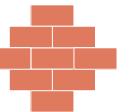
1. Waterworks:



2. Electrical:



3. Structural:



4. Arborist:



5. Pesticide:



# YOUR COMFY DREAM HOME

we want to help you take care of your house,  
so you can live in a beautiful place.



[SEE OUR SERVICES](#)

[CLICK HERE](#)

contact us:

## OUR WEBSITE

we have the website for getting the customer's input for using with zero-shot classification and etc.

the client will see all of the services we provide, and they will contact us through the text box within the customer service section.





# Let us help you

type here

Committed to providing excellent  
service and quality results

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# DASH



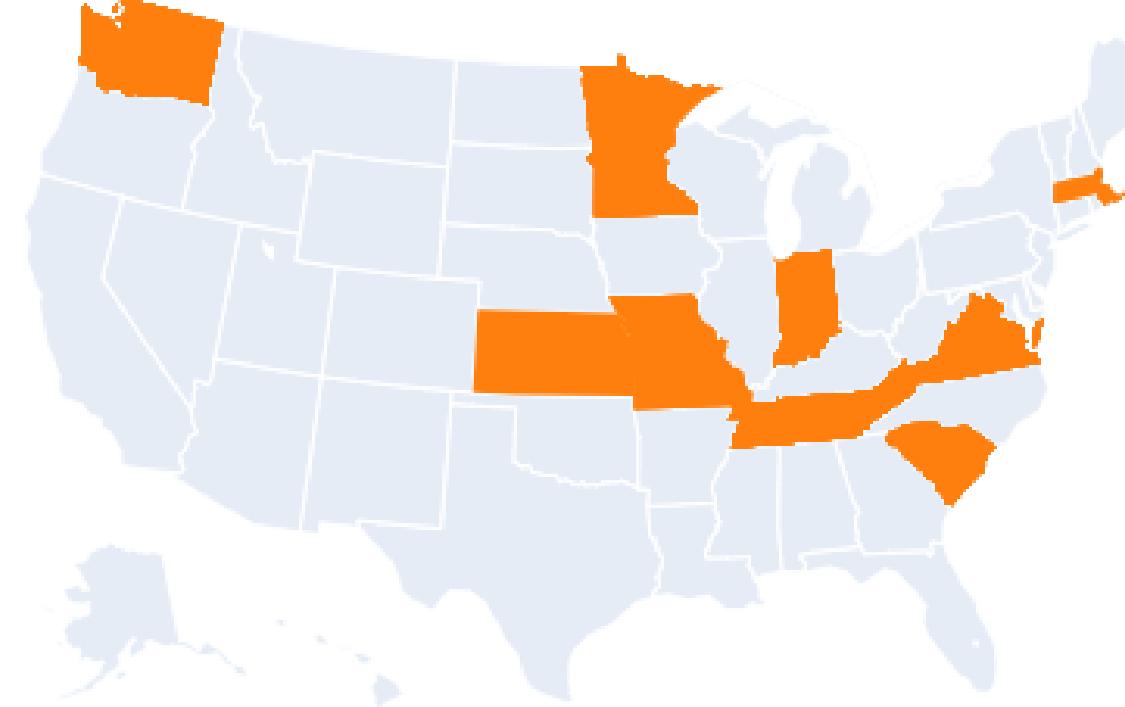
The **first** plot (geography map) shows where the client's place is.

The **second** plot (data logs) shows work queue from clients.



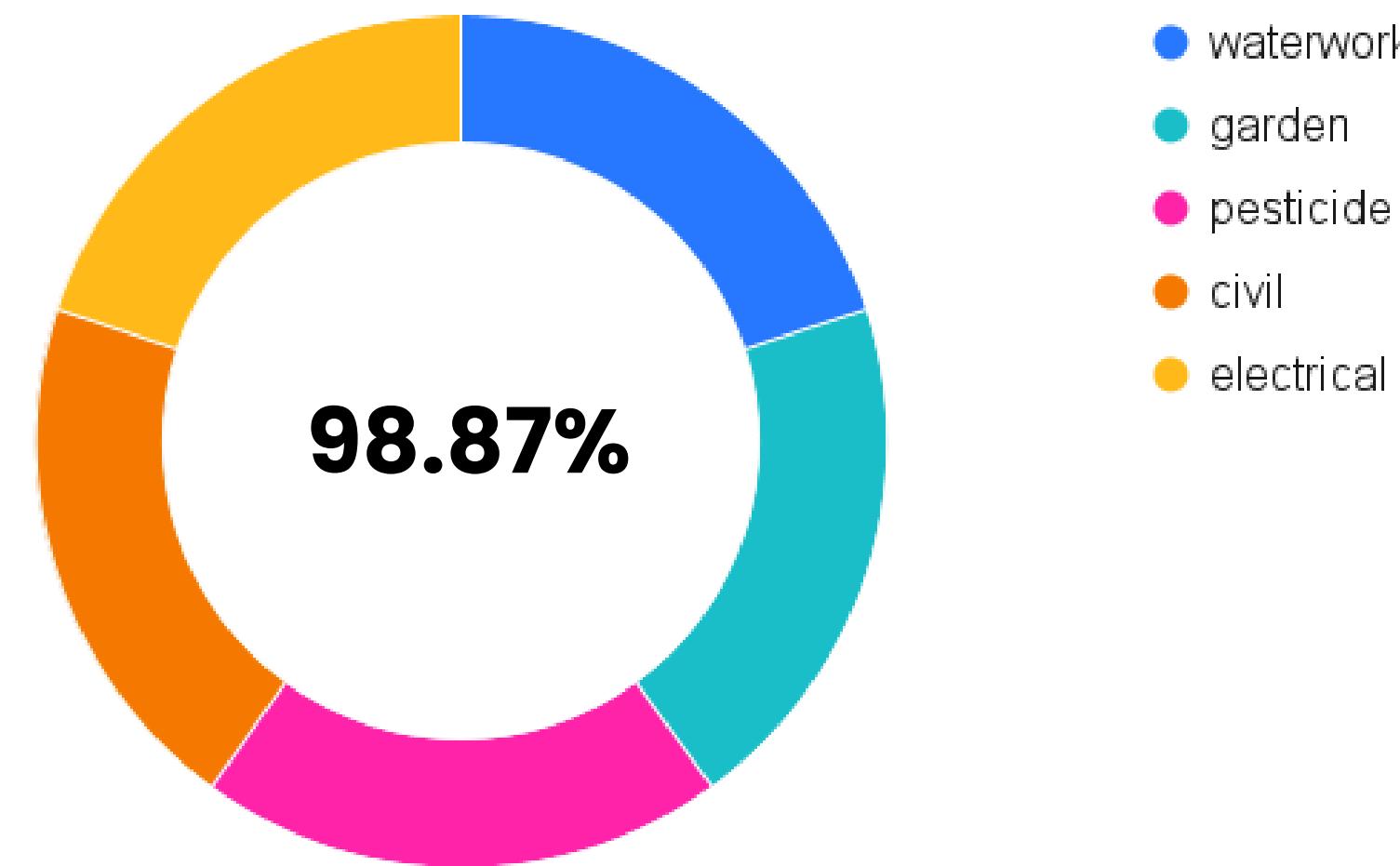
The **third** plot (Pie chart) shows the responsible department for the issues.

The **fourth** plot (Bar chart) shows the monthly report.

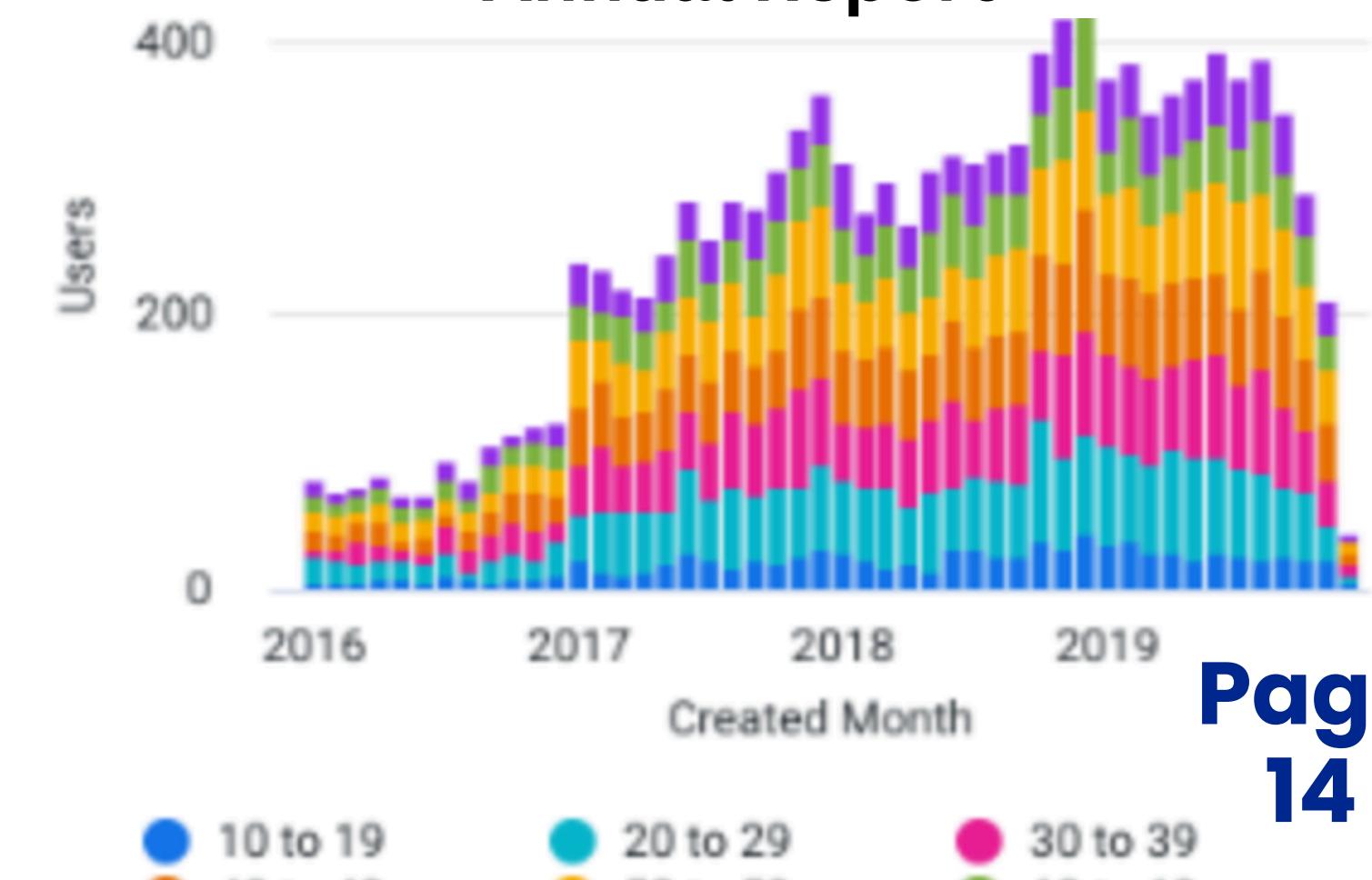


Problem-ID	Time-stamp	User-ID	User-name	Description	STATUS
1	12/4/2022 14:08:21	20005	Bradley Greer	<a href="#">detail</a>	COMPLETED
2	12/4/2022 16:38:17	10010	Sonaya Forst	<a href="#">detail</a>	ON-PROCESS
3	12/4/2022 17:45:23	20005	Bradley Greer	<a href="#">detail</a>	COMPLETED
4	13/4/2022 9:08:24	10945	Zenaida Frank	<a href="#">detail</a>	ON-PROCESS
5	13/4/2022 9:08:24	20035	Bubble Bolt	<a href="#">detail</a>	COMPLETED
6	13/4/2022 11:26:54	23376	Punn Nida	<a href="#">detail</a>	WAITING
7	13/4/2022 2:31:27	22495	Great Yoshiga	<a href="#">detail</a>	WAITING

Department chart



## Annual Report



# HOW DOES IT WORK?

zero-point classification will analyze which department will engage with the issues client reported.



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clients

website

postgreSQL

API(s)

head of the department

engage the problems

data gathering

database

analysis method

# OUR TEAM

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- Jakphun Nimthong 6610412008
- Pattaranai Lirdkittisakul 6610412011

**DADS 5001 , Data Analytics and Data  
Science Tools and Programming.**

National Institute of Development  
Administration (NIDA)



# THANK YOU

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