Applied Data Science Project

L7 - Project design tools

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Pillars

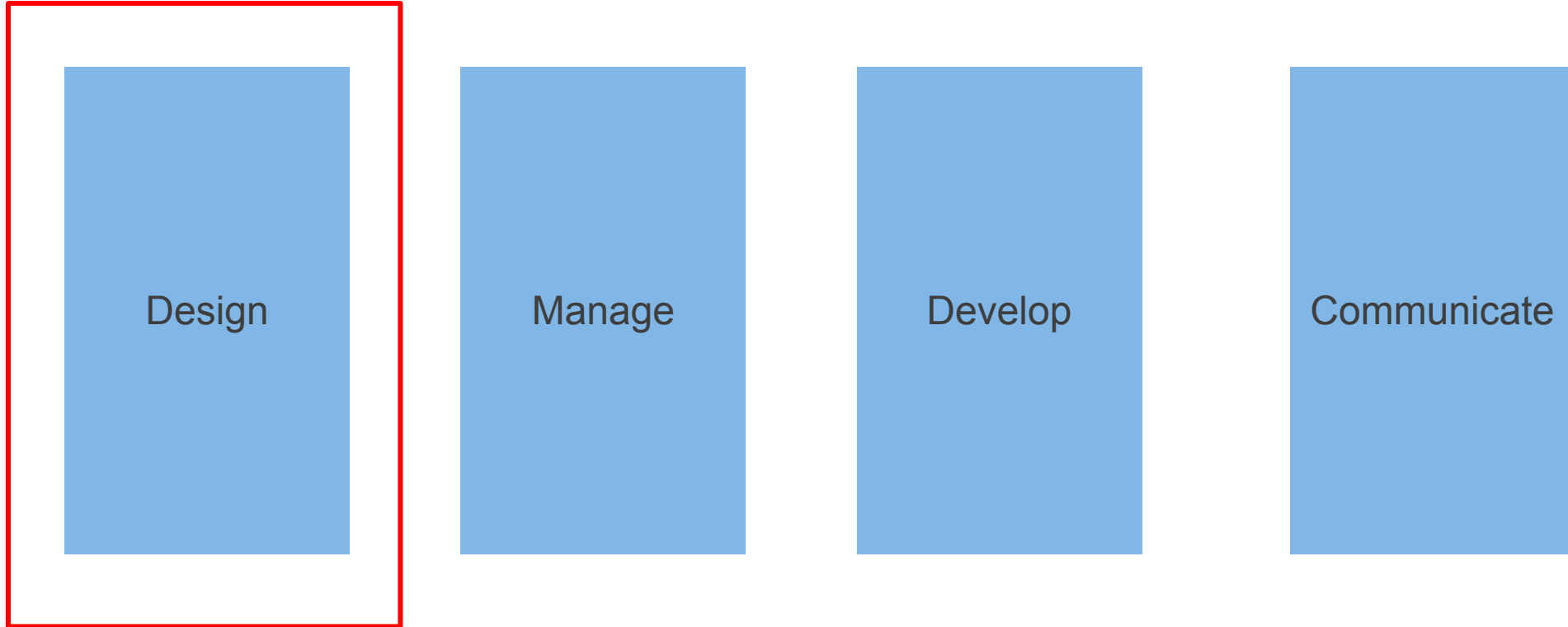Design

Manage

Develop

Communicate

Knowledge tools

- Persona canvas

- Functional diagram

Persona canvas

There are plenty of different canvases that can be reconducted to the topic of personal elicitation

Persona canvas

Frustrations	Needs

USER
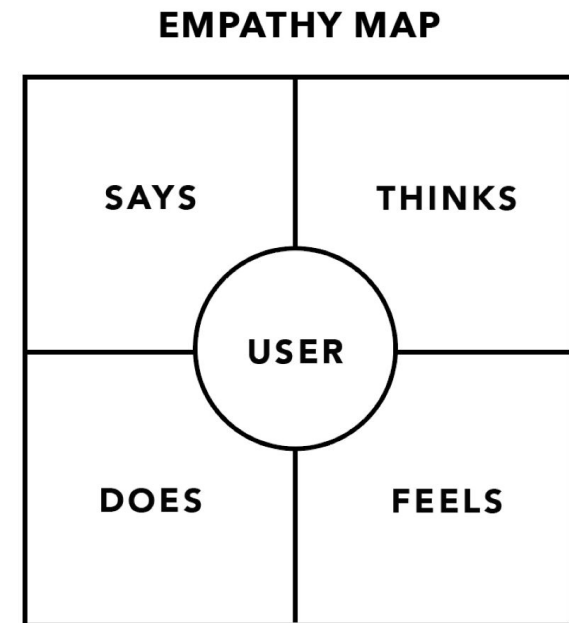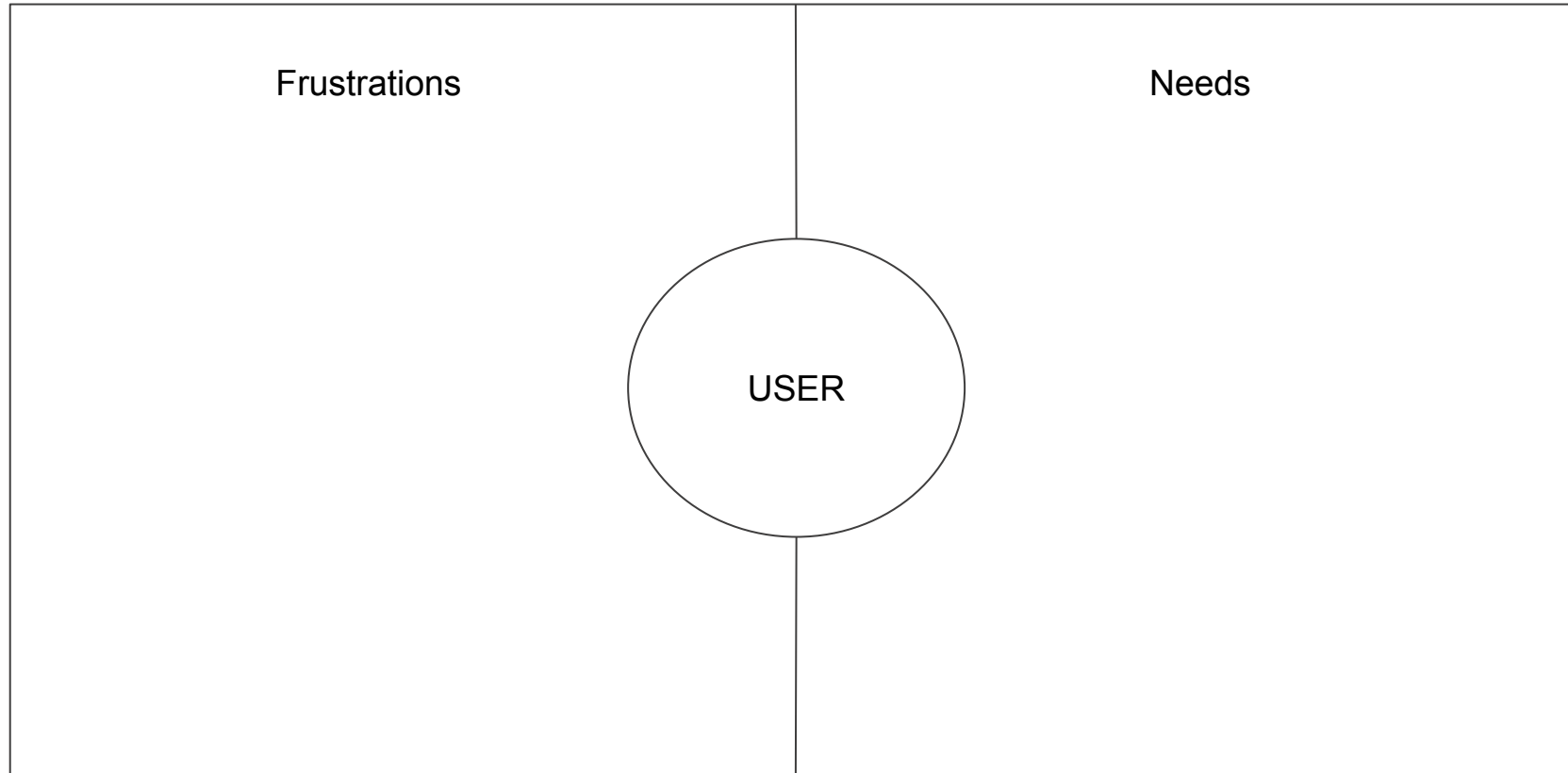
This is a simplified version that can be used for this course

Toy example

Didi is the owner of a restaurant in the city centre of Turin

She is keen to listen to all customers to improve her service
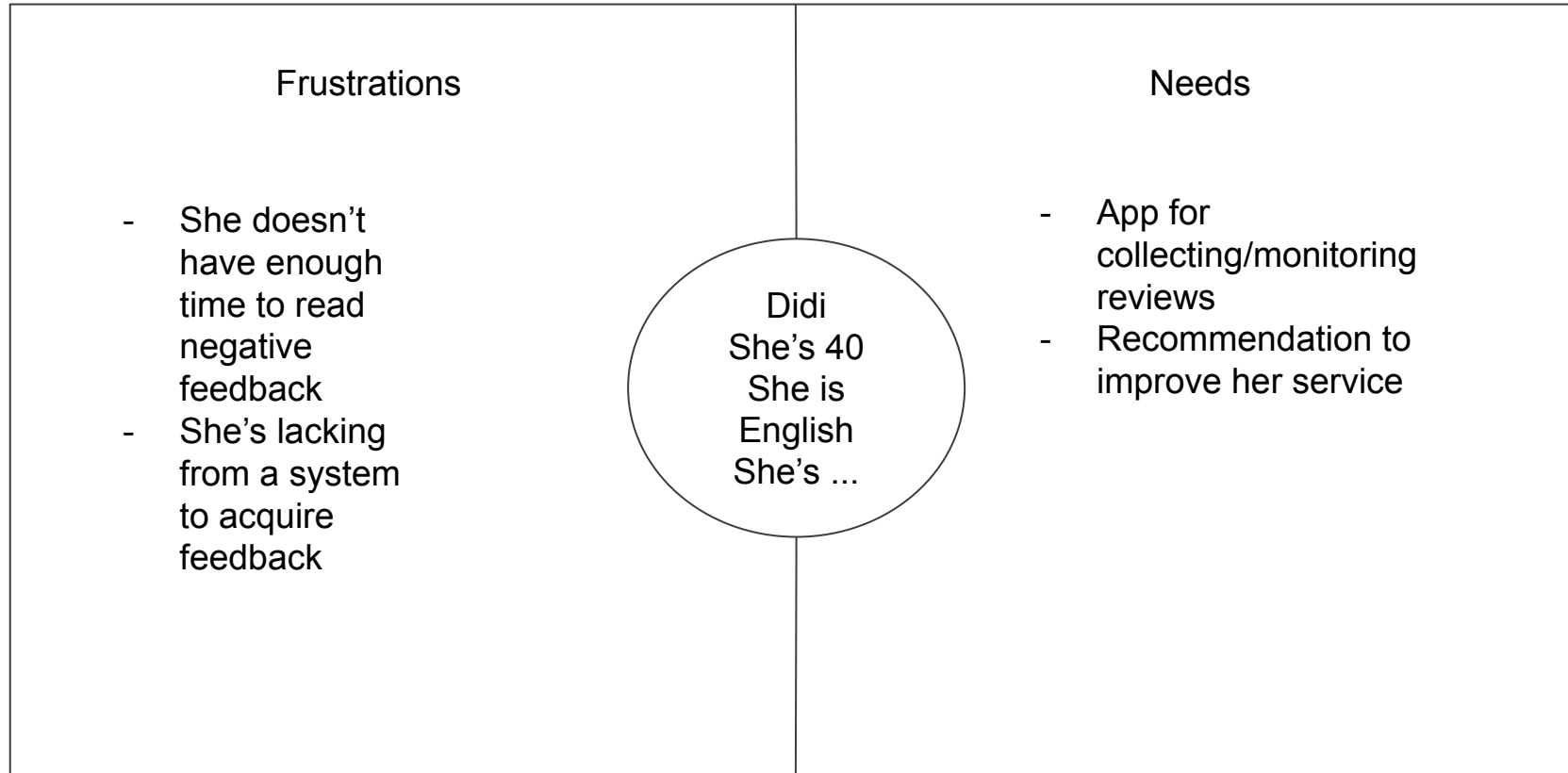
She has numerous customers passing by daily. Most of them utilize social media platforms to share their experiences, such as Tripadvisor, significantly

An enormous amount of reviews are shared daily and she struggles to keep up reading the negative feedback

She needs a tool to select the negative feedback

Didi's Persona canvas

Hands on

Frustrations		Needs
- She doesn't have enough time to read negative feedback - She's lacking from a system to acquire feedback	Didi She's 40 She is English She's ...	- App for collecting/monitoring reviews - Recommendation to improve her service

App for editing

A canvas can be shared with collaborators

A workshop session of the entire team is necessary to shape the canvas to reflect the needs of each

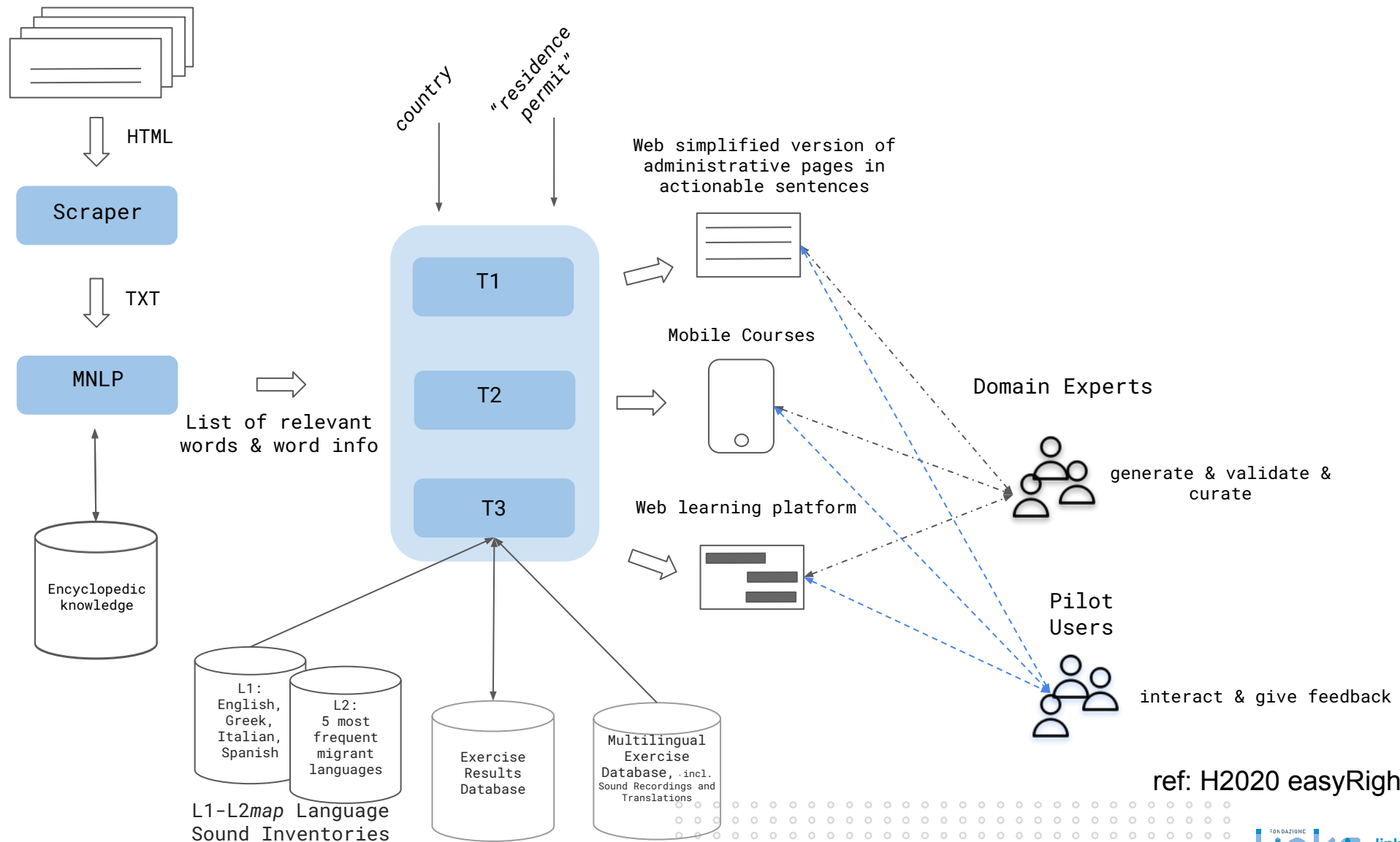Some sharing platforms suitable for the need: Google Slides and Office 365

Functional Diagram

It describes the functions, links and interplay of the whole system (either be a project or a software)

Note of styles:

- functions or software components are represented by blocks

- input and output elements of a block represented with arrows lines

- relationships among functions are labeled with text

- stakeholders (such as users) are illustrated with icons

Example

HTML

Scraper

TXT

MNLP

Encyclopedic knowledge

List of relevant words & word info

country

"residence permit"

T1

T2

T3

Web simplified version of administrative pages in actionable sentences

Mobile Courses

Web learning platform

Domain Experts

generate & validate & curate

Pilot Users

interact & give feedback

L1: English, Greek, Italian, Spanish

L2: 5 most frequent migrant languages

Exercise Results Database

Multilingual Exercise Database, incl. Sound Recordings and Translations

L1-L2*map* Language Sound Inventories

ref: H2020 easyRights project

App for editing

Numerous digital tools available to create a functional diagram (many are collaborative)

In this course, we will use https://www.diagrams.net

- it is available both as online application running in a browser and as desktop application

- it can be utilized with a free license

- it syncronises with GDrive, OneDrive, other cloud services and locally

Diagram of Didi's tool

Hands on

Diagram of the whole project

Represent the target user (Didi's, owner of the restaurant)

Represent the data source

Add (at least) one block to define the machine intelligence that computes the sentiment

Represent the output

Diagram of the software

Represent the input text

Represent the classifier
- represent the vectorization
- represent the classification

Represent the output

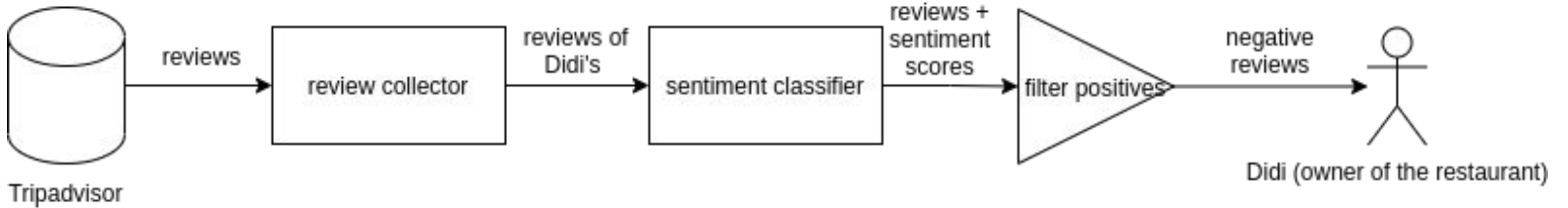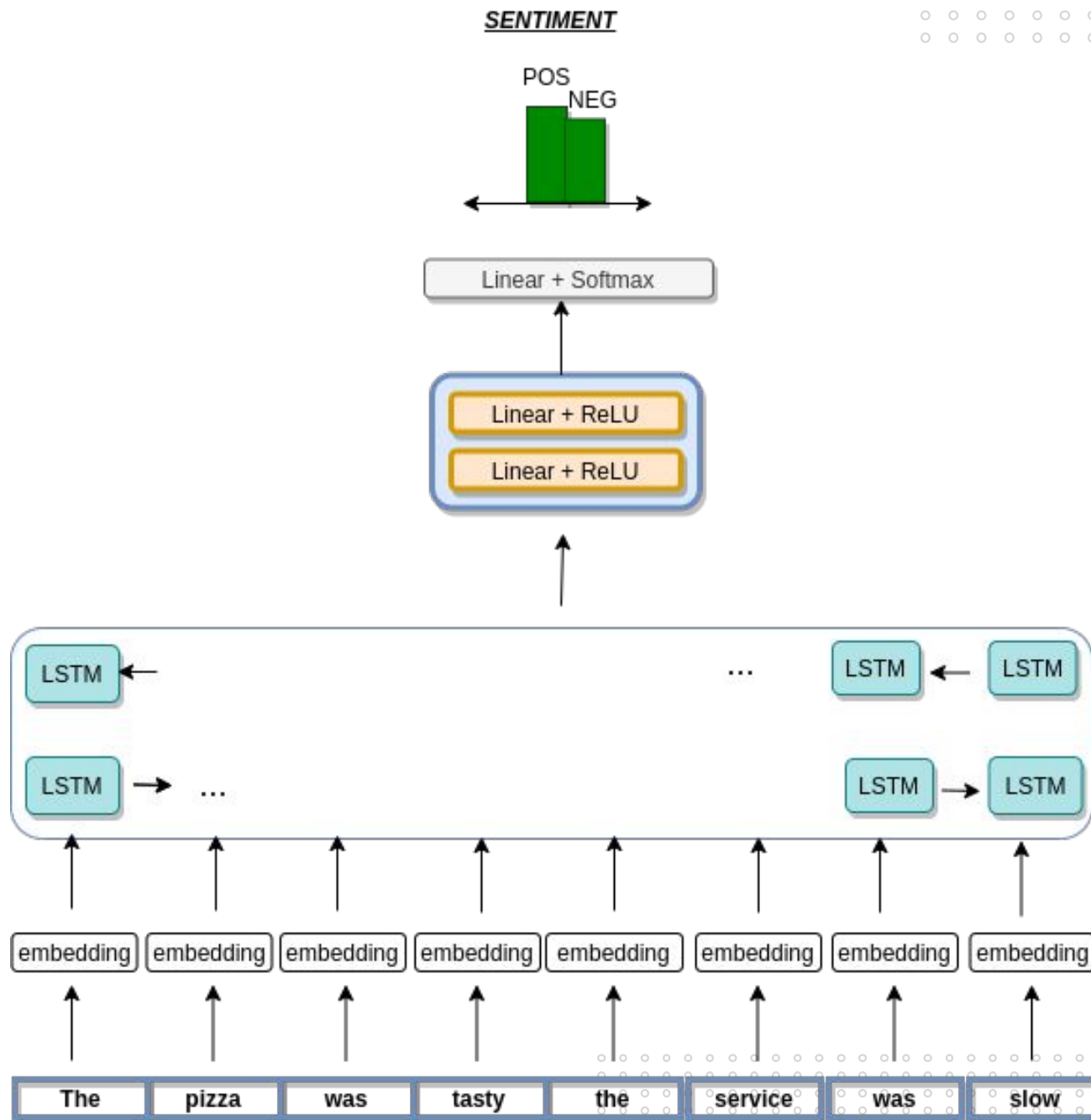# Diagram of Didi's project

Whole project

Tripadvisor → reviews → review collector → reviews of Didi's → sentiment classifier → reviews + sentiment scores → filter positives → negative reviews → Didi (owner of the restaurant)

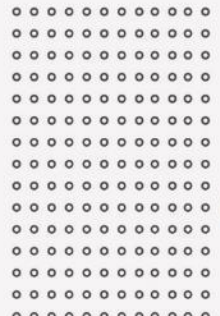# Diagram of the sentiment classifier

Software

Thank you for your attention.

Questions?

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