



PROJECT IDEA

# ANALYSIS OF THE SALE OF PROPERTIES IN MALAGA AND PREDICTION OF THE SALE PRICE

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# TOPIC MOTIVATION

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For my personal experience and that of my friends:

Everyone wastes a lot of time searching in different property sales pages to find the best option based on our needs and with the best price.

For my job:

We work with some real estate business and therefore this is an analysis very interesting and it can provide added value.

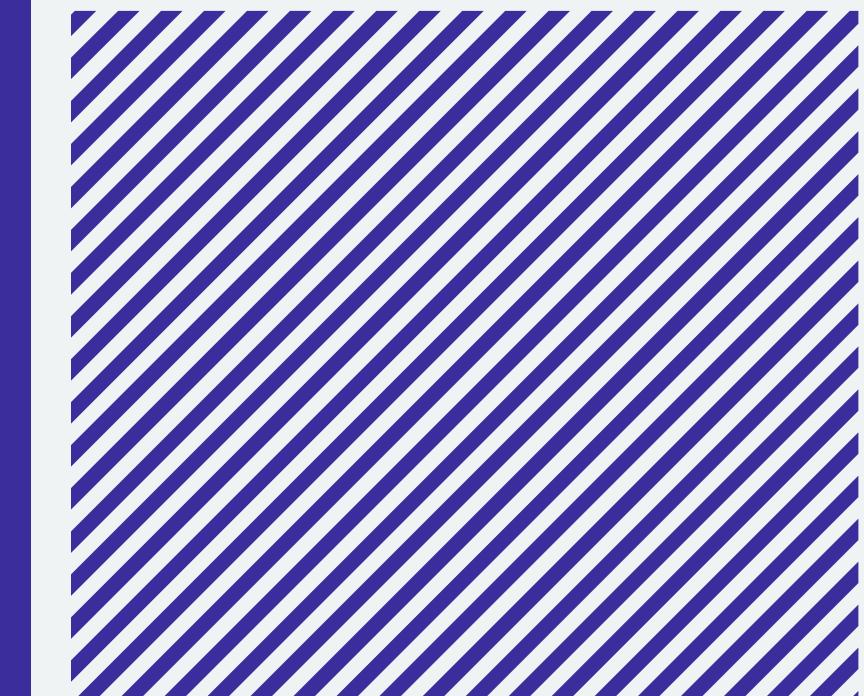


## WHERE ARE WE GOING TO EXTRACT THE DATA?

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With the Idealista API  
and if necessary  
applying web scraping  
in other portals such as:

- Idealista (API)
- Pisos.com
- Fotocasa
- Yaencontre.com
- Indomio
- Tucasa.com
- Tecnocasa





¿WHERE?



MÁLAGA



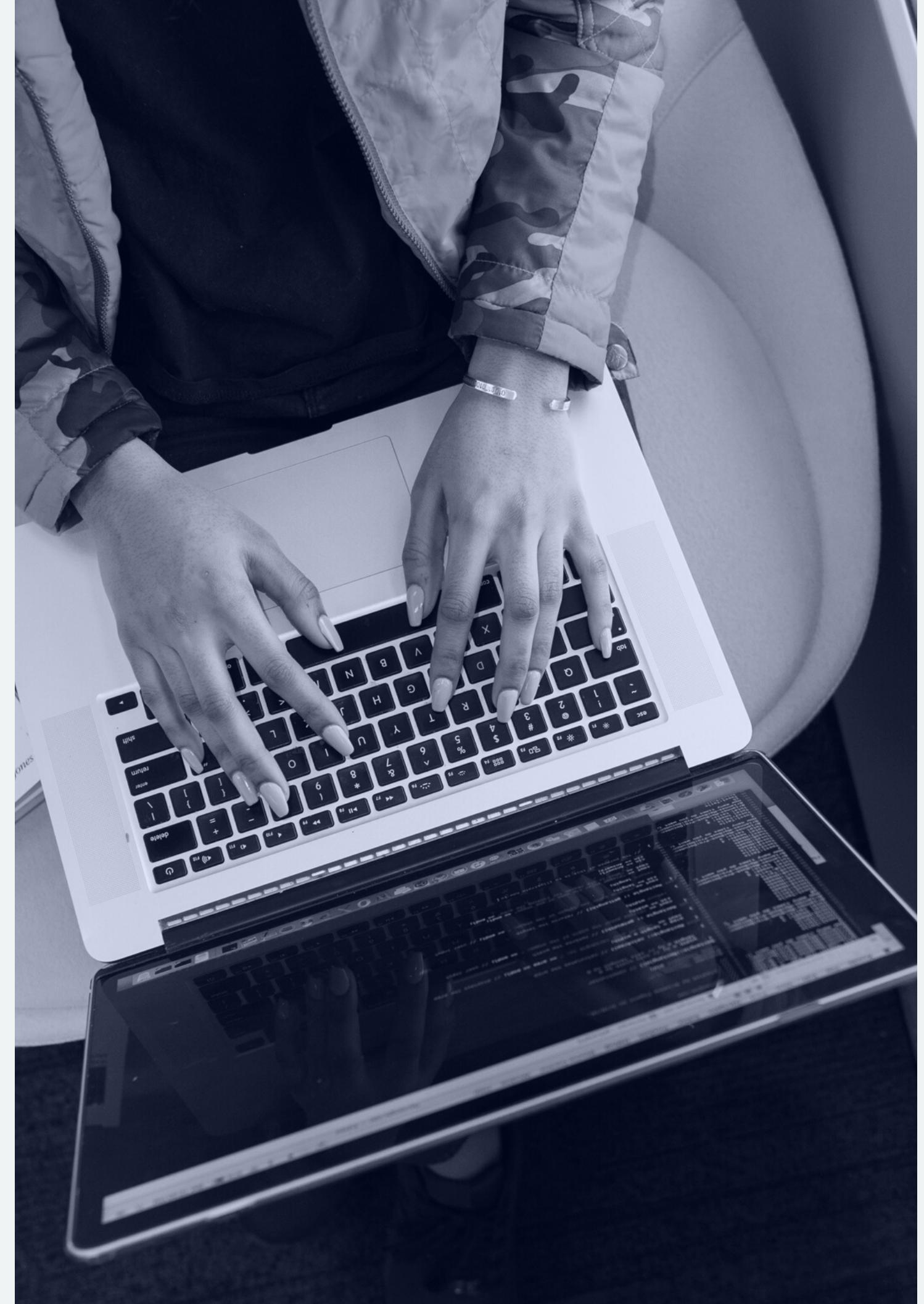
BY  
DISTRICTS

# PRE-ANALYSIS

## FIRST OBJECTIONS

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- 1) THE IDEALISTA API IS PRIVATE AND IT IS NECESSARY TO REQUEST ACCESS PERMISSION.
- 2) ONLY ALLOW 100 CONSULTATIONS PER MONTH AND A MAXIMUM OF 50 RESULTS FOR EACH CONSULTATION.
- 3) IF WE APPLY WEB SCRAPING IN SOME PORTALS, THE EXTRACTION OF DATA FROM ONE PLATFORM TO ANOTHER CANNOT BE REPLICATED BECAUSE THE STRUCTURES OF THE WEBSITES ARE SLIGHTLY DIFFERENT.





# OBJECTIVES

**HAVE GREATER KNOWLEDGE  
ABOUT THE CURRENT SUPPLY IN  
THE AREA**

**IDENTIFY INVESTMENT  
OPPORTUNITIES:  
CURRENTLY, WHAT ARE THE BEST  
PROPERTIES FOR SALE?**

**REALIZATION OF A PREDICTIVE  
MODEL OF THE HOUSING PRICE,  
WHICH WOULD BE OF GREAT  
UTILITY TO REAL ESTATE AGENTS**

# TECHNOLOGIES TO USE

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## ■ JUPYTER NOTEBOOK

Different libraries

## ■ WEB SCRAPING

Beautifulsoup | Selenium

## ■ EXPLORATORY ANALYSIS

## ■ CLEAN DATA

## ■ FEATURE ENGINEER

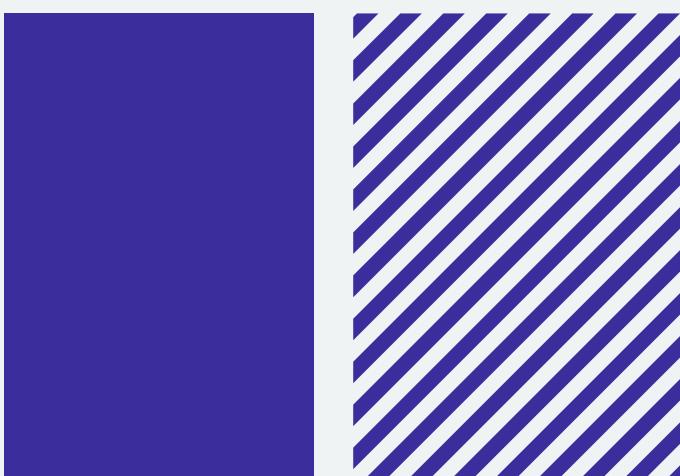
### ■ DESCRIPTIVE ANALYSIS

Complete and Rigorous

### ■ PREDICTIVE MODEL

sklearn – Linear Regression

### ■ VISUALIZATION WITH TABLEAU



# Timeline

ALL TIME

WORK IN A CIRCULAR WAY THE  
DIFFERENT PARTS OF THE  
PROJECT



8 APRIL

FIRST MODELS (THE MINIMUM  
BASIC)



UNTIL 28 MARCH

GET ALL DATA AND TAKE THE  
FIRST EXPLORATIONS

26 MAY

IMPROVED AND ADVANCED  
MODEL WITH FIRST  
CONCLUSIONS AND RESULTS

10 JULY

VISUALIZATION (TABLEAU)

30 JUNE

FINAL MODEL ADJUSTMENTS AND  
DOCUMENT PREPARATION

22 JULY

ENTREGA TFM



A faint background image of a person's hand holding a smartphone is visible against a dark blue gradient background. The phone screen displays a blurred city skyline at night with lights from buildings and traffic.

# Thank You!