

# CAPGEMINI x ACCOR Data Project

Capgemini X



Application of NLP techniques to the Bokan 39 hotel business case

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# Accor faces multiple challenges that could be overcome thanks to an in-depth analysis of customers' post-Covid behavior...





AS-IS / TO-BE ANALYSIS OF ACCOR'S ONLINE PRESENCE



**S**ECTOR

As-Is

To-BE

TARGETED CLIENTS

#### **Wealthy Customers**

- + Higher margins
- + Word of mouth reputation
- Lack of price segmentation
- Highly dependent on City's financial activity



#### **Maintain**

High standing of the main restaurant offering

#### **Improve**

Get inspired from French
Michelin-star restaurants that
also have a "brasserie" extension
to expand price segmentation,
using price and reviews data
from the Tripadvisor scraping

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**S**ECTOR

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TO-BE

### LOCATION

**DEPENDENCE** 

#### **On-site dining only**

- + Delivers a unique experience linked to the site
- Highly vulnerable to Covid-19 lockdowns and general restrictions
- Lack of flexibility due to limited target market → additional clients are lost and food stock losses cannot be hedged by selling on online platforms



#### Maintain

 A more limited on-site dining to account for a weakened restauration market

#### <u>Improve</u>

- Potentially launch a delivery and click&collect services based on the NLP sentiment analysis of the reviews
- Rebrand the rooftop for future events respecting Covid-19 health restrictions

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### ONLINE PRESENCE

### Strong social media presence but limited website

- + High number of Instagram followers
- Website UX/UI is quite outdated and lacks readability
- Instagram campaigns do not appear to target a precise clientele



#### Maintain

• The Instagram presence

#### <u>Improve</u>

- Improve the responsiveness and design of the website
- Expand Instagram campaigns by leveraging the tastes of top Tripadvisor "influencers"

#### ... which will be performed with the help of state-of-the-art NLP techniques





#### DATA PIPELINE AND TOOLS WHICH WILL BE USED TO PERFORM THE ANALYSIS

#### **Data Collection**







- Data collection using a Scrapy spider
- 3 tables are generated in JSON format: restaurants, users & reviews

ETL

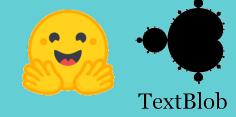




- ETL operations in pandas to preprocess the data
- Cleaning and lemmatizing user reviews using NLTK

Modeling





- NLP tokenization using Hugging Face
- Sentiment analysis
   using Text Blob or the
   integrated Hugging
   Face module

**Business Implementation** 





- Presentation of the most meaningful business insights
- Update of the current market state by analysing competitors



