

# Technical Documentation

## 1. Architecture Overview

NewsBot2 is composed of a number of interconnected components that cooperate to gather, process, and comprehend news content.

The process of collecting data involves gathering news from various sources, such as scraped websites, APIs, and RSS feeds.

To prepare the text for analysis, text preprocessing eliminates extraneous words, punctuation, and formatting.

Classification: This process determines whether an article is positive, negative, or neutral by using machine learning models.

## 2. API Reference

The two primary components of NewsBot 2.0 are NewsBot2System, the "brain" that actually processes data, and NewsBot2Config, which stores the bot's configurations such as file locations, language, and article limits.

The system has the ability to load data, analyze a single article, answer a user's query, and compile findings from numerous articles.

These features are currently merely placeholders, so until you program a more thorough analysis, they only display basic results.

To help the bot learn more, the notebook also loads useful libraries for data visualization, web scraping, machine learning, text understanding, and translation.

## 3. Installation Guide

1. Install Python

2. Download Notebook and save the NewsBot2

3. Install Required Libraries like pandas, matplotlib, spacy, etc.

4. Run the Notebook

or

Github with all the repository

and clone:

<https://github.com/miguelsanchez6002/ITAI2373-NewsBot2-Final>

#### 4. Configuration Manual

The NewsBot2Config class controls every setting in NewsBot 2.0.

The bot is instructed to locate the CSV file used for training by the `train_file_path` and the CSV file used for testing by the `test_file_path`.

You can change the language setting to something like "fr" for French, but "en" (English) is the default language used when processing articles.

Last but not least, the `max_articles` setting determines how many articles the bot will process simultaneously. By default, it is 1000, but you can change it to suit your needs.

```
config = NewsBot2Config()
config.train_file_path = "/data/my_train.csv"
config.test_file_path = "/data/my_test.csv"
config.language = "fr"      # Use French
config.max_articles = 500   # Only process 500 articles
```