

# Python bot "Wikibot"

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## 1 Introduction

The main reason for creating this bot is to simplify and speed up the processing of information. Sometimes using your favourite messenger you come across interesting, unknown information. And you want to learn it but quickly without digging in a pile of unnecessary information.

## 2 Problems

The main problem was the output of the image from the wikipedia page. Until the end I didn't understand how to do it, the only way that worked for me was to search for a picture all over the internet via Custom Search Engine, but it very often displayed pictures that were not related to the topic or didn't display them at all. But then an idea came to me. What if there is a way to divide the whole article into parts and take the part(picture) I need. And it turned out that parsing could help me with this very well, that's when I started working in that direction, which eventually improved the bot's performance many times over.

## 3 Methods/procedures/algorithms

Telegram Bot API Integration:

Integrating with the Telegram Bot API allows the bot to communicate with users on the Telegram platform, send messages, receive commands, and handle various types of interactions.

HTML Parsing (Beautiful Soup):

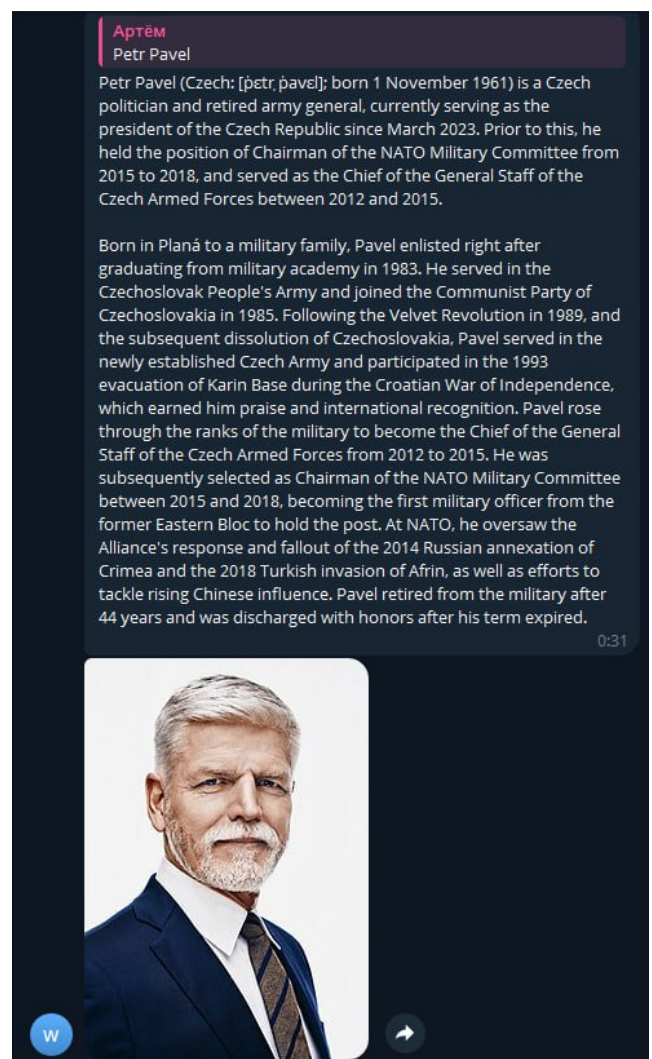
Wikipedia articles and other web content are often formatted using HTML. By parsing HTML, the bot can extract relevant information, such as images, from Wikipedia pages. BeautifulSoup provides powerful tools for navigating and extracting data from HTML, making it a natural choice for our task.

Image Processing (Pillow):

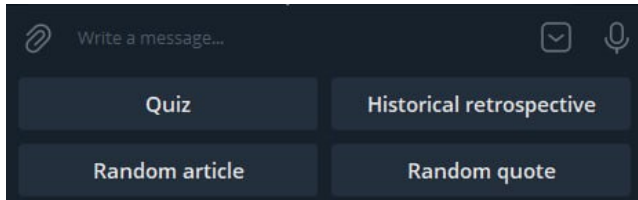
Wikipedia articles often include images related to the article topic. By processing images, the bot can display relevant visuals to users, enhancing their understanding of the content.

## 4 Results

The result came out good in my opinion. The main target was to make a bot that displays articles from Wikipedia. But in the process of work new functions were added to the bot, such as quiz, random article to learn something unexpectedly interesting or random quote to get motivation or just a reason to think. There is also a historical retrospective function that displays events that happened on this day in the first half of the 20-th century.



Obrázek 1: Result for the query Petr Pavel



Obrázek 2: keyboard for working with the bot

## 5 Conclusion

In the process I faced problems, solved them, came up with ideas, tried to implement them, experienced a lot of emotions and realised that this project gave me not only the experience of programming as coding but also the experience of working on something whole, important, when you see every change you make and see the problems that this change brings. I don't plan to abandon this bot, I think it's worth uploading it to the hosting and then slowly adding new features and solving problems.

## Reference

- [1] Wikipedia-API Documentation - <https://wikipedia-api.readthedocs.io/en/latest/pdf/>
- [2] BeautifulSoup Documentation - <https://beautiful-soup-4.readthedocs.io/en/latest/>