

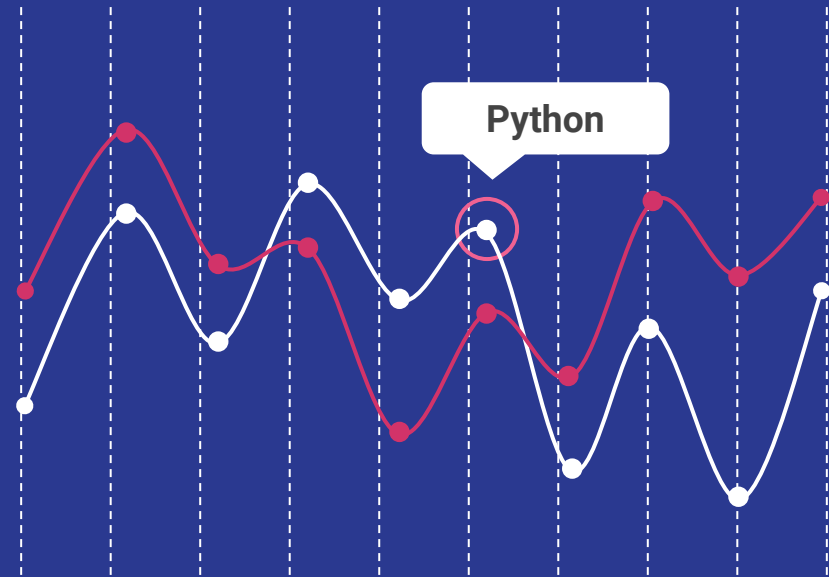
Telegram News Bot

(PSDL Micro-Project)

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Introduction

Staying up to date with current news is difficult due to the various media outlets covering stories and the inability to decide which stories are the most relevant and important. Thus, we miss out on important news stories due to a lack of a convenient ability to access various news sources. This inspired us to create a Telegram Bot that delivers the most relevant news to you everyday. The Telegram Bot delivers the top news stories for the day from a popular Reddit thread called [r/worldnews](#). We send the selected news stories as text messages to the subscribed users on Telegram app.



Module Flow Diagram

Reddit API

- Connect to Reddit with Client ID and secret.
- Obtain top submissions from r/worldnews.
- Send HTTP requests to obtain news sources.

Web-scraping

- Use article class from Newspaper module to parse data.
- The parsed data is summarised using nlp.
- The Headline, text, summary and url are extracted.

Telegram API

- Connect to Telegram Bot using HTTP API token.
- Format the text message to be sent.
- Schedule the message to be sent at a particular time everyday.
- Send message to specific users.

Technology Features

- Python Reddit API Wrapper (praw library)
- Python Data Pretty Printer (pprint library)
- Requests library for handling HTTP Requests
- Python Newspaper library to perform Web-scraping
- Article class from Newspaper module for data extraction
- Telegram API for Bot
- Schedule library to schedule the messages to be sent out at a particular time
- Time library to send messages at scheduled time in intervals of one minute

Limitations

- In order to receive news messages everyday, the script will have to keep running on the host machine. If the machine shuts down, the machine will have to be restarted and we will have to run the script again.
- If more than one article from the top 5 posts is about the same subject matter, then multiple news messages are sent about the same subject. There is no mechanism to stop the same news being sent again from a different news source. This leads to sending of redundant messages.
- If one or more top submissions do not change on the next day, then the same messages are sent again. There is no mechanism to stop the repetition of the same news stories being sent on the next day.

Future Scope

The next step to extend the project would be to host it on the cloud using any popular cloud hosting platform like Amazon Web Services. This will ensure that the script is running at all times on the cloud and not on the host machine. Automating the process for subscribing to the News Bot instead of manually adding people to a group. Making the bot interactive to receive specialized news.

References

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- <https://www.reddit.com/dev/api/>
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Thank you!