Catching wildfires with bisection

With Madrid recruitment test

In this test, we'll assert different abilities

- Create maintainable code
- Learn new paradigms
- Understand classic algorithms

The problem is simple. We'll use NASA satellite images in order to detect the occurrence of wildfires at a specific locations. A PoC is provided but you will have to code it as a Telegram bot, possibly using the BERNARD framework. Here are the different resources you can use:

- The NASA API (suggested Python wrapper)
- The PoC
- BERNARD framework (see the tutorial)

Note: in order to use the NASA API you need to register for an API key. The process is instantaneous.

If you run the PoC, you'll see the expected behavior. It will show different images to the user, asking if they can see wildfire damages on the picture. Based on the answers, it will use a bisection algorithm to find the first image where the wildfire damages appear, helping to pinpoint its occurrence date. Within 5 iterations, it will tell you which is the first image displaying wildfire damages.

Your goal is to reproduce this using a Telegram bot. The bot will show the images to the user and the user will have to say if they see wildfire damages on them. In the end, the bot will indicate the date that it guessed for the events.

You are free to define the UX, use all Telegram features, choose the tools you want to work with or even use a different imagery sources as long as the core concept is kept.

Expected output is:

- The name of the working bot (we can provide a development server if required)
- The source code
- An explanation of what was made to make the code maintainable

Those are the instructions but feel free to interact and ask questions during the development process!