In this Instructable we will show how to use the Ubidots platform to publish data coming from an interface developed in Labview. The get and post methods can be used to link the virtual instrument with the Ubidots variables. Figure 1 shows the G code to perform the connection with the web service to post data.
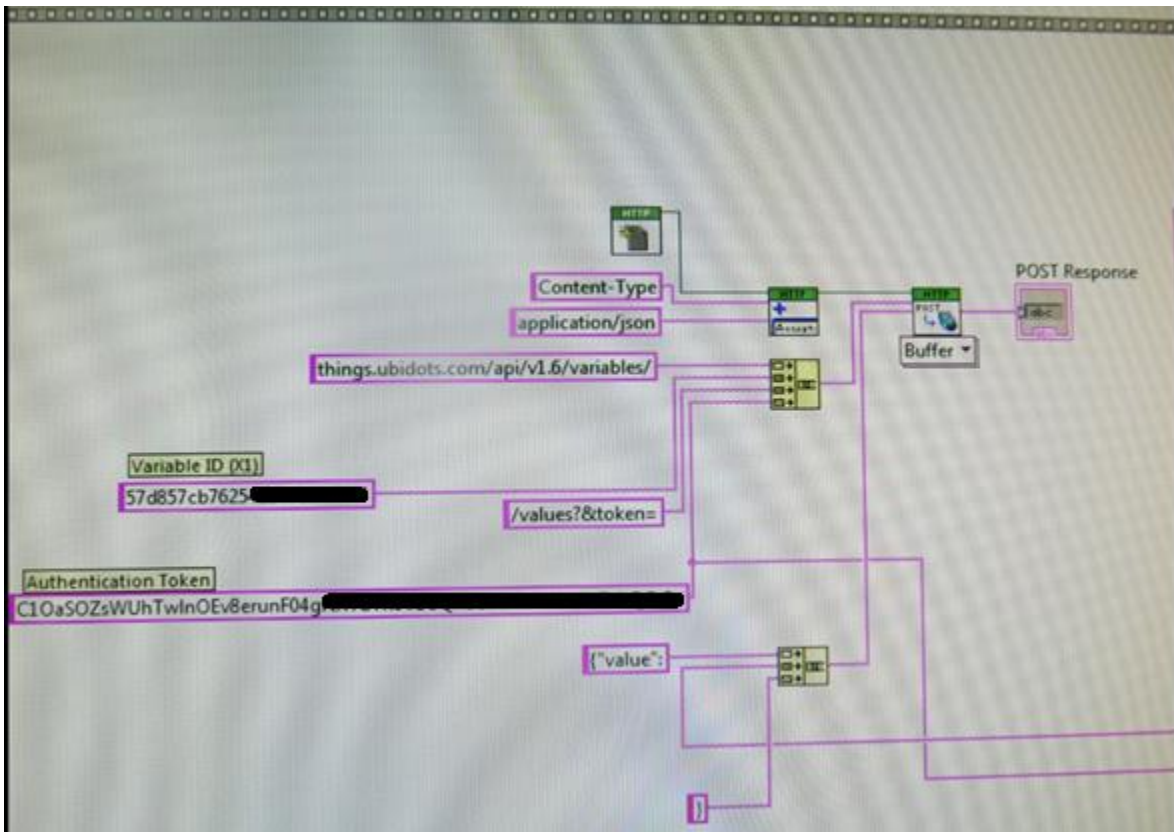

Figure 1. G code snippet to post data from a Labview virtual instrument to Ubidots platform

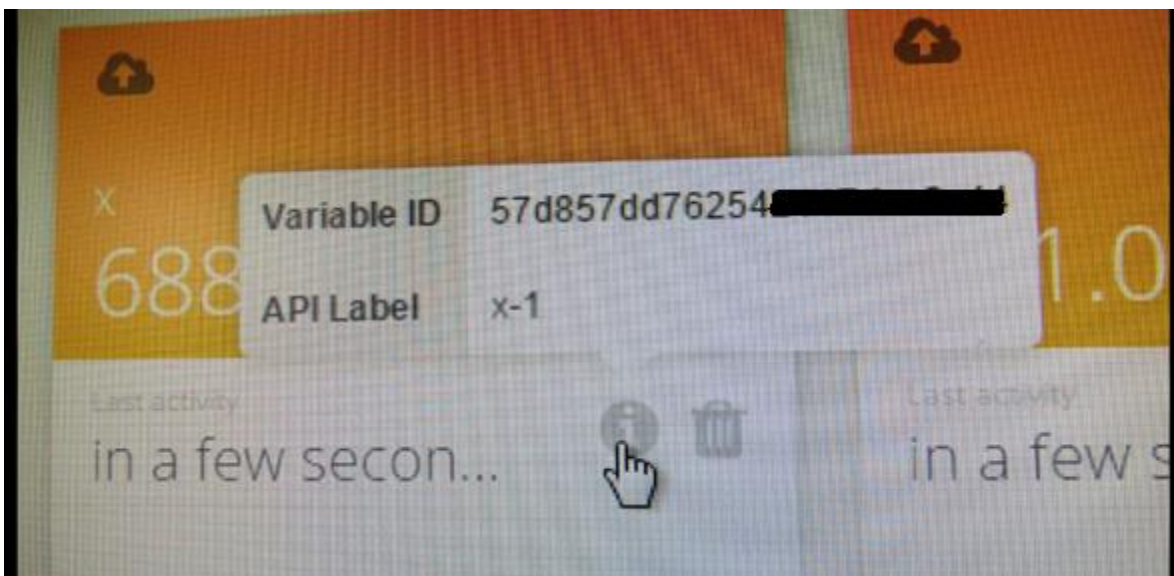Variable ID and the authentication token are provided by Ubidots, as shown in Figure 2 and Figure 3.

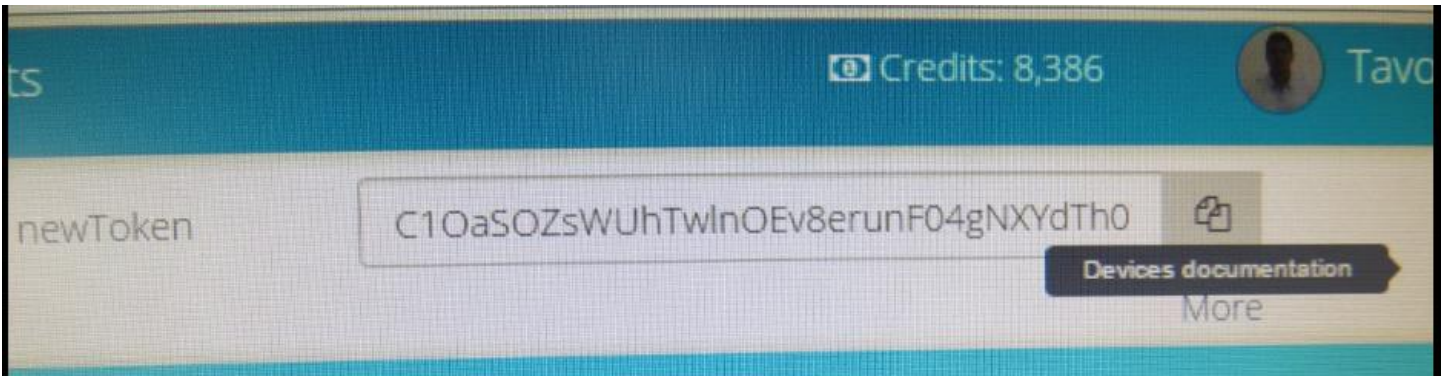Figure 2. Variable ID is a unique alphanumeric string provided by Ubidots.

Figure 3. The authentication token is also provided by Ubidots, in "API Credentials"

The user must have an Ubidots account which can be created for free. Adding a "Device" allows including a set of variables belonging to the Internet of Things (IoT) or remote monitoring projects. Figure 4 shows a set of four variables of a monitoring project.
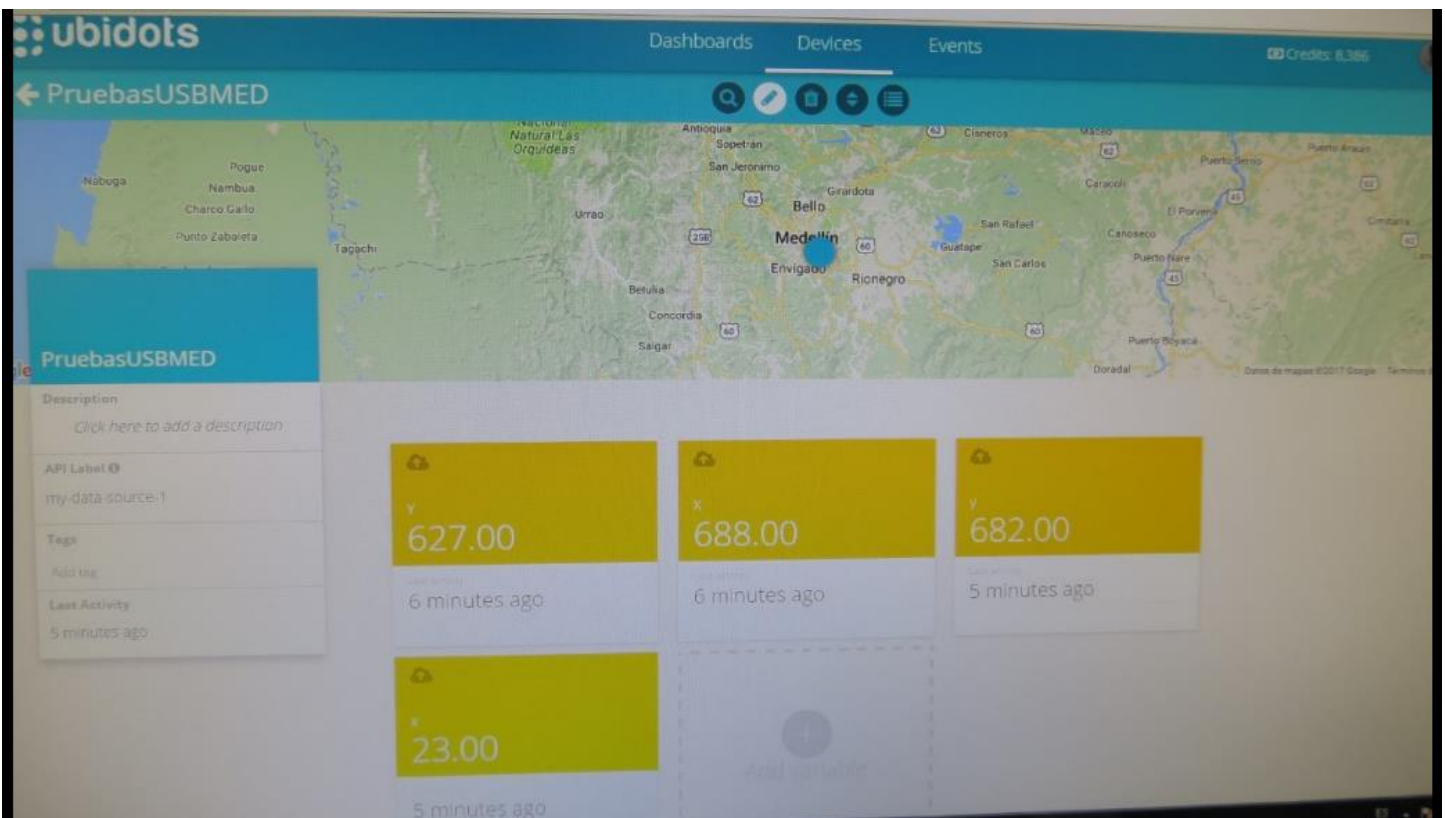

Figure 4. Project variables showing the most recent acquired values.

When the virtual instrument (VI) developed in Labview is running successfully the post action response displays messages like those shown in Figure 5

POST Response 2

{"url": "http://things.ubidots.com/api/v1.6/values/589f834b76254256dc8d4620", "value": 692.0, "timestamp": 1486848843079, "context": {}, "created_at": "2017-02-11T21:34:03.079"}
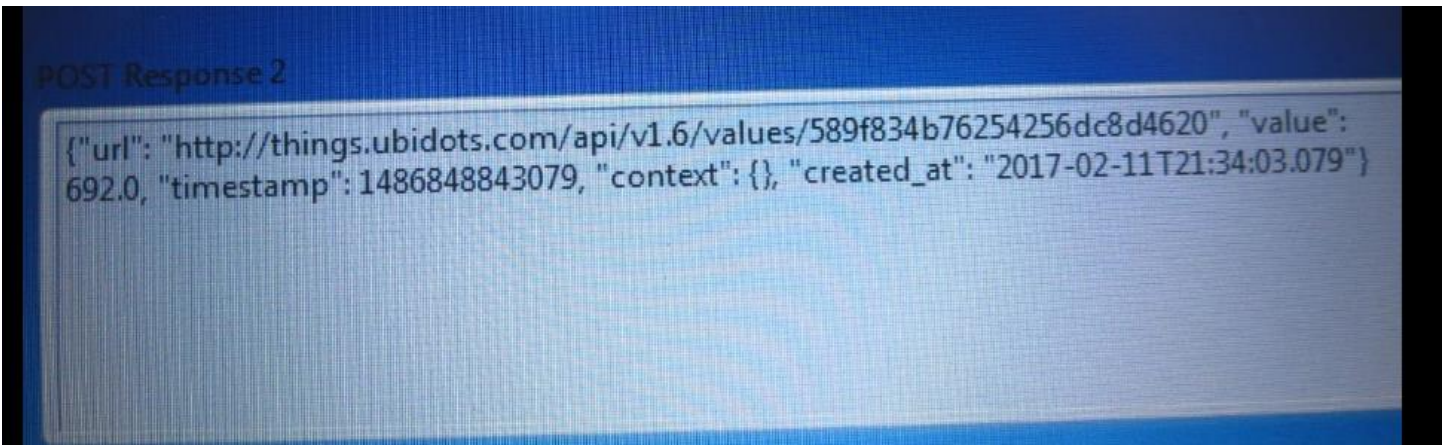
Figure 5. Post response showed in Labview's string indicator in the front panel of a VI

After uploading the acquired data to the Ubidots platform a set of services and additional options become available for the users. One of this options is the automatic generation of alarm notifications and messages triggered by conditions established by the user for the monitored variables.

Figure 6. Configuring an automatic SMS message to be automatically sent from Ubidots to a mobile phone when a variable goes down a pre-established value.
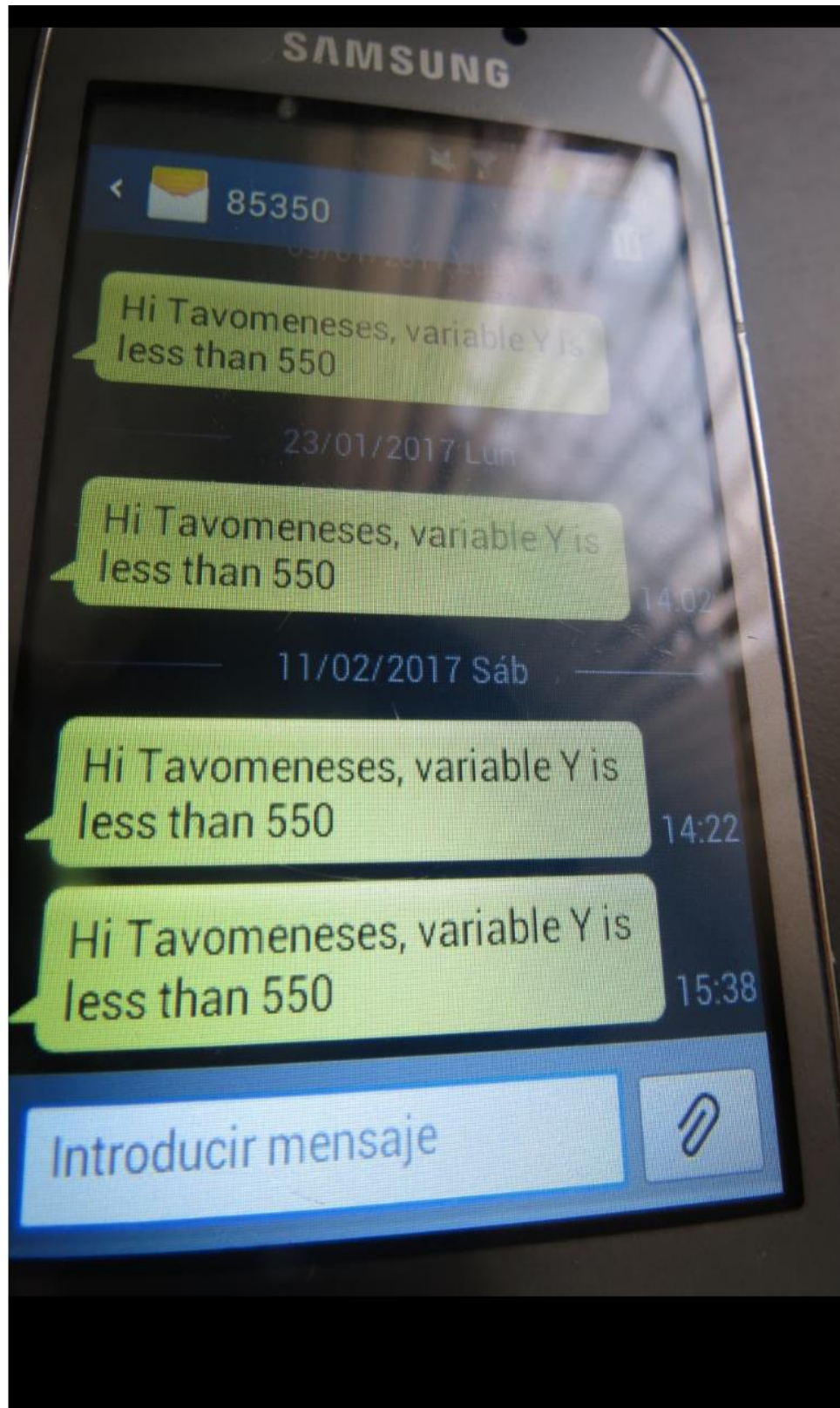
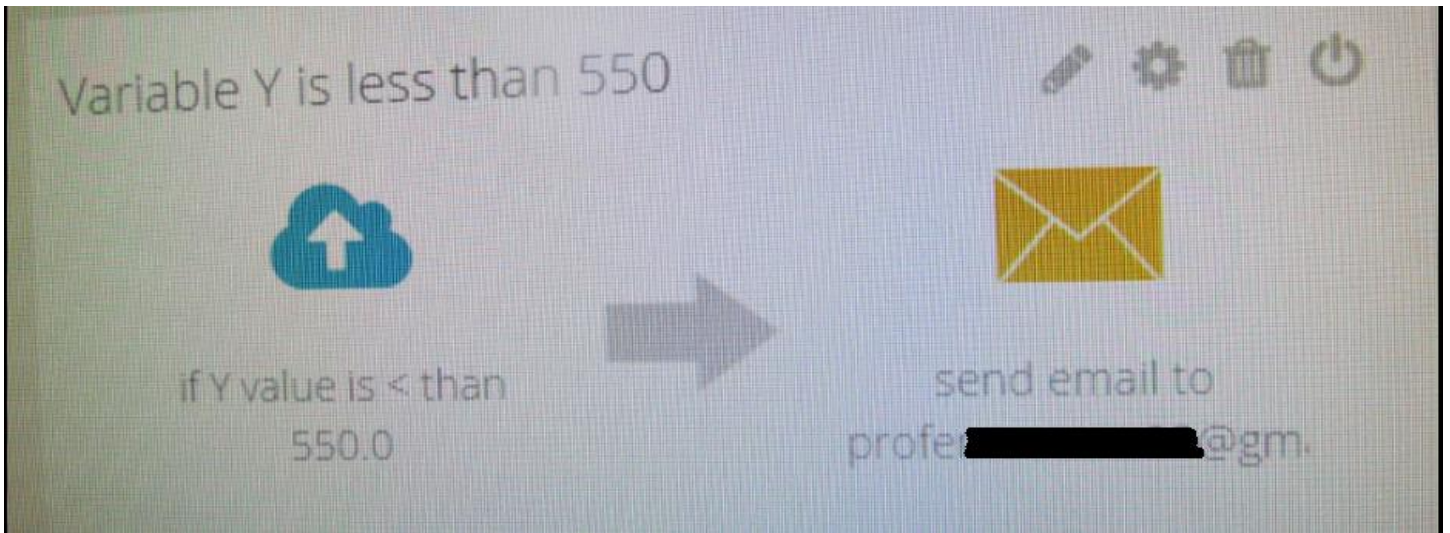Figure 7. Text messages received from Ubidots after an event has occurred

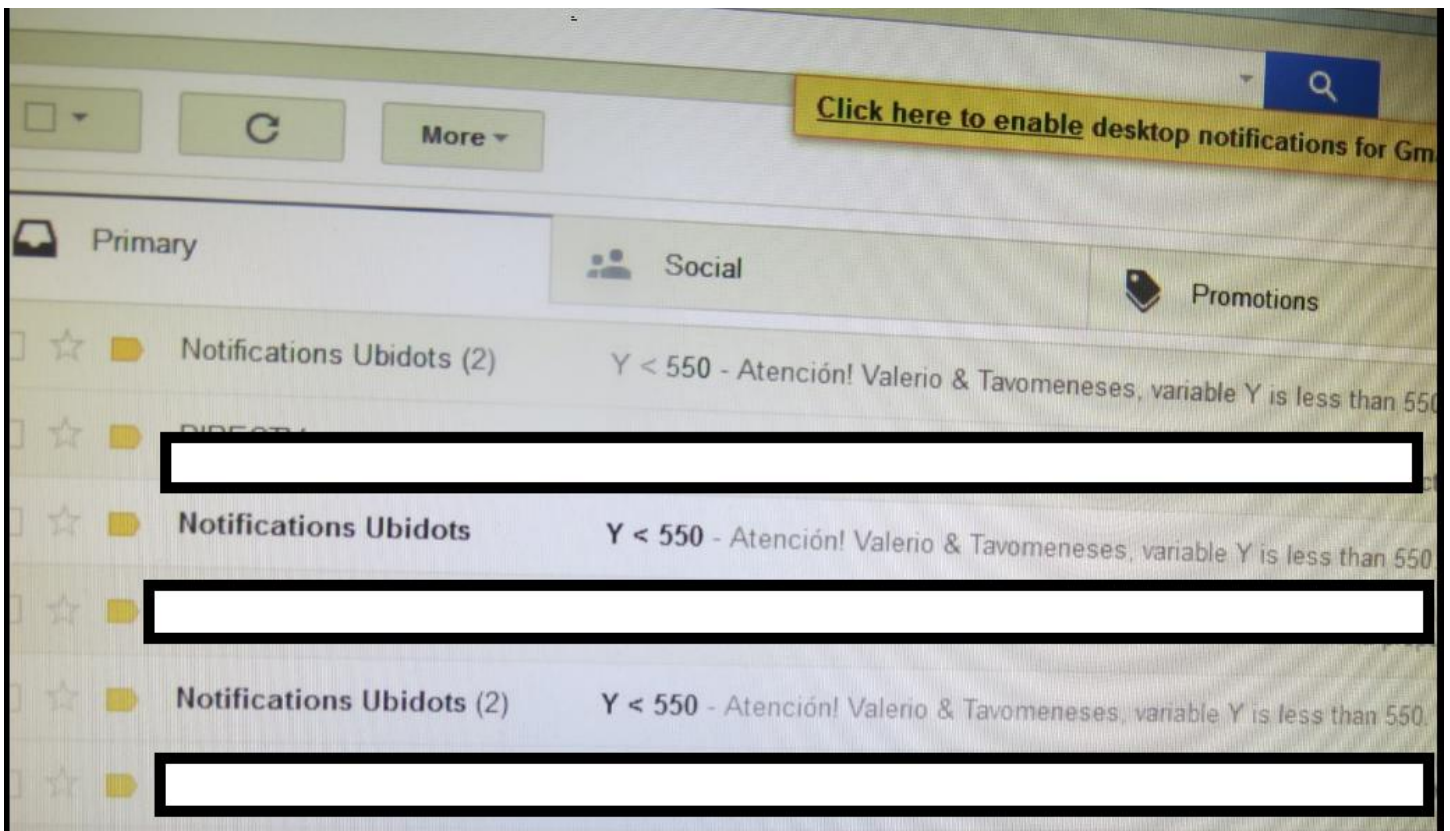Figure 8. Configuring automatic e-mail sending for a variable value threshold

Figure 9. E-mails received from Ubidots platform