

Computer Science Internal Assessment: Criterion A

Defining the Problem

The client Mr. X is a lawyer and is a partner in his law firm. Lawyers like Mr. X need to stay up to date on any changes to the law in order to give the best service to their clients. However, accessing the official source of information, the “Diario Oficial de la Federación” (DOF), is quite tedious and time consuming, and time is key for lawyers like Mr. X.

At the present time, they solve this issue by having an intern at the firm who sends by email a sort of “reader’s digest” of the DOF in the form of the summary of each article with its corresponding hyperlink. This is a very time-consuming task, since they have to manually copy and paste everything and send it as an email.

I did an interview to Mr. Y, who is an independent contractor that works in the IT area of the firm. He explained to me the previously mentioned information. It was very valuable input to develop my proposal.

Rational for Proposed Solution

For my Internal Assessment, I will make a Java program that takes the information from the DOF and automatically sends it as an email to the lawyers at the firm. Basically, it would do the same job as the intern but automated. This is a task that can be easily automated in order to save valuable time and effort.

There will be two parts for the solution: the first will be scanning the RSS feeds from the desired websites and sending the information by email. The second consists of a simple GUI to manage the functioning of the program, like registering, editing, or deleting email addresses, and selecting what feeds to send to each email. I decided to program my Internal Assessment in Java for the following reasons:

- I already have experience programming in Java.
- I can make use of Java’s ability to make URL connections to get the XMLs from the RSS feeds.
- Then, I can take the DOF’s XML and read it to then interpret it and isolate the desired information.

- Afterwards, I can take advantage of the ability to send emails through Java.
- JavaFX makes it easy and simple to create intuitive GUIs.

Stating Success Criteria:

1. Program will get the XML from the DOF's RSS feed.
2. Program will analyze said XML to extract the desired data.
3. Program will have a login screen.
4. Program will be able to add, edit or delete people from a specified list.
5. Program will have a GUI to configure preferences and send the emails.
6. Each email can be opted in or out from specific sections of the DOF.
7. Program will send an email to said list of people.

Word Count: 460