

## Introduction

Software updates are an important and regular thing we should be doing. Especially for those who work as sys admins. One of the biggest pains with this is the research that goes into these patches. You have to look for the patch notes, figure out what's being changed, then see if it will affect any of your current systems.

## Solution

- My solution is to create a program that is able to fetch the patch notes for you and then use an AI api to summarize the changes and be able to tell you if this is going to affect anything in your systems.

## Why Is Patching Important?

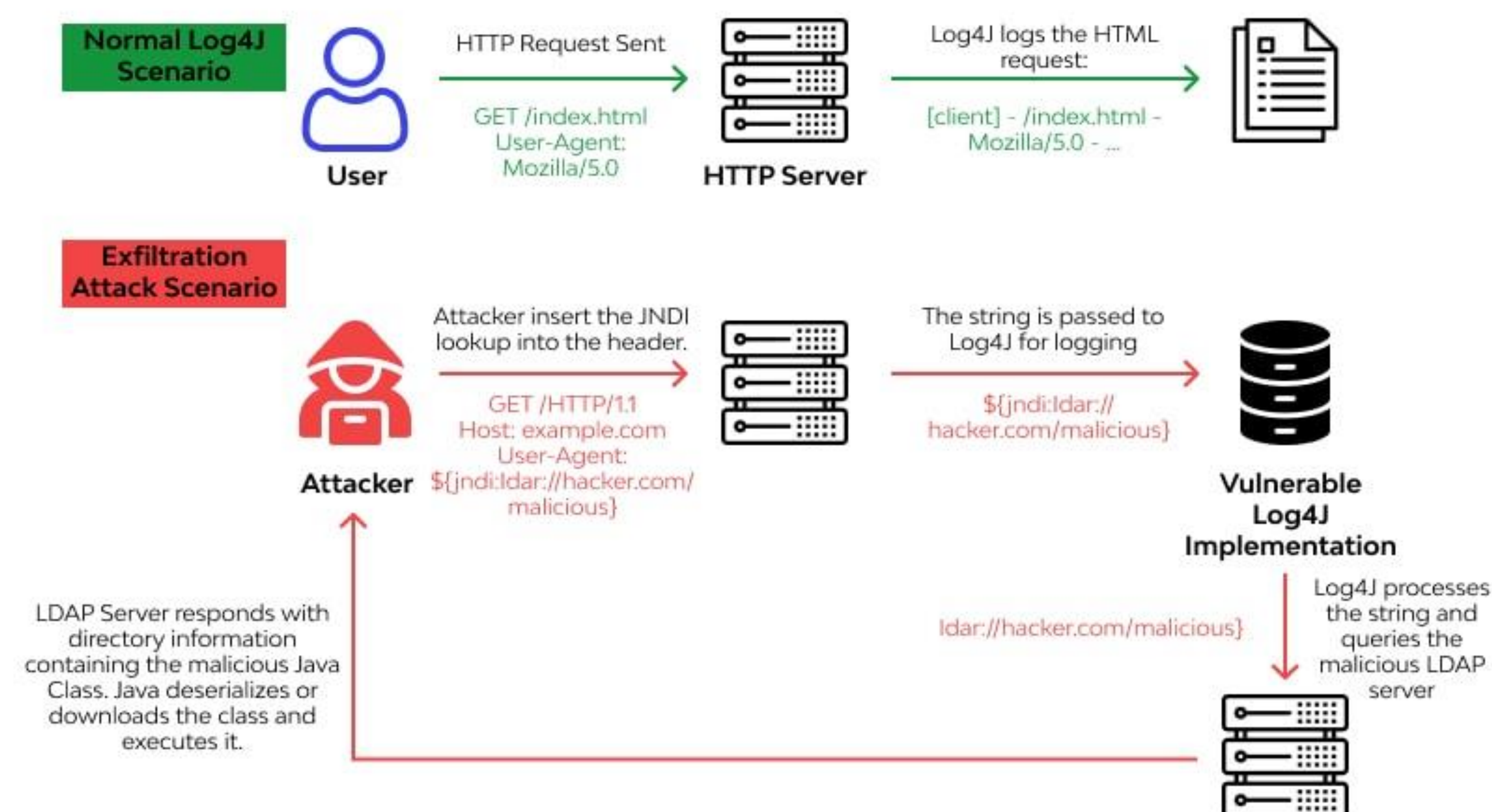
When you don't keep your software up to date, you risk yourself having vulnerabilities in your program. These vulnerabilities can be risky since it can compromise data and lose money for your company. For the average person, it can result in accounts being hacked.

There have been many instances where a company has been negligent in patching their systems and then causing security breaches. Bad actors are quick to use exploits against anyone!

## Future Additions

- Some future additions I would like to add are a GUI and account creation. This way the program can remember what softwares you have and notify you every so often about critical patches coming out.
- The next addition I would like to add is a feature that allows you to add some basic information about your program/servers. For example you can add that you have nginx servers and when you make an update to the JavaScript version you're using, it can cross reference the server type and see if issue will arise.

## Log4J Explanation



## App Design

Simple terminal design to quickly and efficiently grab what you need

This is all in python, using the beautiful soup library to help web scrape.

```
Enter software name: python
Enter software version: 3.0
Enter software version to upgrade: 3.1
Fetching patch notes from: https://docs.python.org/release/3.0/whatsnew/

Patch Notes:
- The "What's New in Python" series of essays takes tours through the most important changes between major Python versions. They are a "must read" for anyone wishing to stay up-to-date after a new release.
- What's New In Python 3.0
```

Figure 3. Rough draft of sample application

## References

Log4J Image- <https://www.wallarm.com/what/log4j-vulnerability-all-that-you-must-know-about-it>