

# Online Virus Check

Submit Assignment

**Due** Tuesday by 11:59pm      **Points** 25      **Submitting** a text entry box or a file upload  
**Available** until Dec 15 at 11:59pm

The idea is to create a web-based Antivirus application that allows the users to upload a file (of any type) to check if it contains malicious content. That is, if it is a Malware or not.

## Definitions:

- Infected File: It is a File that contains a Virus.
- Putative Infected File: It is a File that might contain the Virus and needs to go under analysis.

You will have to:

## Build a web page that:

- Ensures a secure Session mechanism.
- Allows the user to submit a putative infected file and shows if it is infected or not.
- Lets authenticate an Admin and allows him/her to submit a Malware file, plus the name of the uploaded Malware.
- When an Admin adds the name of a malware during the uploading of a Malware file, it ensures that the string contains only English letters (capitalized or not) and digits. Any other character, or an empty string, must be avoided.

## Build a web application that:

- Reads the file in input, per bytes, and, if it is Malware, stores the sequence of bytes, say, the first 20 bytes (signature) of the file, in a database (Note: only an Admin can upload a Malware file)
  - Keep in mind that, based on the type of file, the first 20 Bytes might not be very informative. In fact, they are usually used by the header (basically saying which kind of file it is). If you want to improve your application, you can add a dynamic mechanism that jumps the header and reads only the bytes after it.
- Reads the file in input, per bytes, and, if it is a putative infected file, searches within the file for one of the strings stored in the database (Note: a normal user will always upload putative infected files).

## Build a MySQL database that:

- Stores the information regarding the infected files in input, such as name of the malware (not the name of the file) and the sequence of bytes
- Stores the information related to the Admin with username and password, in the most secure way of your knowledge.
  - The database doesn't need to be submitted.