# BASH Lab 5 Solutions

I put the test cases into a file called lab5file.

[john@localhost ~]$ cat lab5file

evil01.bat

abcd24.dll

crud99.exe

viru45.dll

sys01.bat

fred1.exe

virusfile45.dll

evil10.jpg

Here I’ve marked the ones that are supposed to fail with strikethroughs, just so we can see what we want.

[john@localhost ~]$ cat lab5file

evil01.bat

abcd24.dll

crud99.exe

viru45.dll

~~sys01.bat~~

~~fred1.exe~~

~~virusfile45.dll~~

~~evil10.jpg~~

I have better luck if I take things in small pieces. First, just get names that have at least four letters.

[john@localhost ~]$ grep -E '[a-zA-Z]{4}' lab5file

evil01.bat

abcd24.dll

crud99.exe

viru45.dll

fred1.exe

virusfile45.dll

evil10.jpg

Ok, that worked. Now four letters followed by two numbers

[john@localhost ~]$ grep -E '[a-zA-Z]{4}[0-9]{2}' lab5file

evil01.bat

abcd24.dll

crud99.exe

viru45.dll

virusfile45.dll

evil10.jpg

The first time I tried this, I tried to add the extension but forgot about the period (.). Didn’t work, so let’s add the period. We have to use the “\” as an escape character, since the period means “one of any character” to a regex. (Note: since . is a wild card, it would work for the examples I’ve given you. It would also match this, though, which would be a failure: def45Xdll).

[john@localhost ~]$ grep -E '[a-zA-Z]{4}[0-9]{2}\.' lab5file

evil01.bat

abcd24.dll

crud99.exe

viru45.dll

virusfile45.dll

evil10.jpg

Now, add the file extensions, with square brackets and the OR symbol.

[john@localhost ~]$ grep -E '[a-zA-Z]{4}[0-9]{2}\.[exe|bat|cmd|dll]' lab5file

evil01.bat

abcd24.dll

crud99.exe

viru45.dll

virusfile45.dll

Hmm, why is virusfile45.dll in there? That’s not what we wanted. It turns out that the regex matched this: virusfile45.dll. There are four letters, two numbers, and .dll. What we have to do is tell the regex that we want the four letters to be at the beginning. Add a caret (^) at the beginning, which tells the regex that a match has to start with four letters.

[john@localhost ~]$ grep -E '^[a-zA-Z]{4}[0-9]{2}\.[exe|bat|cmd|dll]' lab5file

evil01.bat

abcd24.dll

crud99.exe

viru45.dll