Name: Francis Ugorji

CS 405-14758-M01 Secure Coding 2024 C-6

Southern New Hampshire University

Instructor: Dr. Mimi Tam Ph.D

2-2 Activity: SQL Injection Coding

SQL Injection is a popular attack that is known by developers when malicious code is supplied together with strings supplied as normal user input, with the intention of gaining access to a target database, by means of mischievous SQL commands that were not intended to be executed by the database owner or administrator. It’s very important to review all SQL statements for possible attacks, as these attacks have become common and could easily result in serious consequences. In this SQL Injection project, we were tasked with completing code that will be able to examine and find possible SQL Injection attacks. There are several types of known attacks that are possible, but for this project, the attack of interest is that of "OR value=value;". Such an attack can easily be discovered if the programmer can write additional code to watch out for certain strings included in SQL statements that are about to be executed. In order to quickly search for several different string options, it became necessary for me to use regular expression method to search for several string types at the same time. If during the search, an odd string combination is discovered, we terminate the SQL command execution and warn the user of the possibility of an attack. This is demonstrated as shown below:

A screenshot of a computer

Description automatically generated