**Dumb Dumber Dumbest**



# Web Application Penetration Test

Product Name: Runtime\_Terror Web Application

Product Version: 1.0

Test Completion:

Penetration Testers:

Kealan McCormack 18312236

Lukasz Filanowski 18414616

Gerard Colman 18327576

## Project Information

Application Name: Runtime\_Terror Web Application

Application Version: 1.0

## Overview

## Total Vulnerabilities

## Tools Used

OWASP ZAP Version 2.11.1

Burp Suite Community Edition v2022.1.1

## Source Code Alterations

Text

Description automatically generated

Changed the datasource URL to point to a docker container on port 4000

Changed the password to match with the mysql db running in the container

Changed server port to 8070 to allow burp suite to function

# **Findings**

## Vulnerabilities Due to Application Components

Outdated Libraries – CWE 829 - Medium

Bootstrap v3.3.7 - <https://snyk.io/test/npm/bootstrap/3.3.7>

Possibly don’t use any of these

JQuery v3.2.1 - <https://snyk.io/test/npm/jquery/3.2.1>

Possibly don’t use any of these

## App-Specific Exploits and Vulnerabilities

**Gain Admin Access with no checks - Critical**

During the Account Creation stage, the user is asked if they wish to register as an Admin or Standard User via a check box. If the Admin check box is pressed, the account is promoted to have admin privileges. This is a critical security issue as any user can create an account with Admin level access and thus access all Admin functionality. This vulnerability makes most of the below exploits significantly easier or redundant.

**Location in Code**

**Solution**

**No Strong Password Enforcement - High**

When creating an account, the password field only enforces a password with 6 characters. These characters can be any characters meaning that the password doesn’t have to be complex or contain strong password characteristics like symbols, capital letters or numbers.

**Location in Code**

**Solution**

**No Limit on Requests**

**Brute Force Passwords - High**

The Web Application is susceptible to Brute Forcing the password during the user login stage. This is possible as there is no limitation on the number of Requests that can be sent when attempting to Login. This can be done using a Cluster Bomb Attack for example. This process can take a long time, although when it is completed, it can be detrimental to the security of the web application as access to an admin or user account can be gained.

**Location in Code**

**Solution**

**Forum Slowdown Due to Excess of Posts**

**No Anti CSRF tokens – Medium**