Senior Design CS-4910

Computer Science Department

Western Michigan University

**Security Report**

Stephen Betcher, Matt Mazzarella, Sean Hulway, Joe Mangas

Date submitted 20/2/2017

**Summary**

This report covers how the C’s Perfect Tie Sales’s website will be maintain security.

**Contents**

**Summary 1.**

**1.0 Introduction 1.**

**2.0 Sessions 2.**

**2.1 Session id 2.**

**2.2 Session Hijacking 2.**

**3.0 Countermeasures 2.**

**4.0 Conclusions 2.**

**5.0 References 3.**

**Introduction**

With running a Sales Website keeping the sensitive information.

This report will cover how the website is kept secure .

**Sessions**

A session is a hash of values and a session id to identify the hash. Each cookie is sent to the client’s browser and includes the id. Saving and retrieving values as they come.

**Session Id**

A session id is a 32 byte long MD5 hash value of the current time,the ruby interpreter is not feasible to brute force. Having no security impact up to date.

**Session Hijacking**

Stealing a user’s session id let’s the attacker use the web application in the victim’s name. Done by failing to clear cookies and attackings using cross -site scripting to obtain one. If in a hacker can steal information from the users.

**Countermeasures**

No storing of large objects in a session , instead storing them in the database , saving their id in the session. Modifying the structure of an object and old versions of it that are still in some user’s cookies. Clearing out sessions with server-side session storages. Critical data never stored in sessions.

**Conclusion**

This report covered some of the security measures and threats for Ruby on rails and our website.

**References**

Ruby on rails security

<http://guides.rubyonrails.org/security.html>