

**UNIVERSITY OF CALICUT**  
**CENTRE FOR COMPUTER SCIENCE AND INFORMATION**  
**TECHNOLOGY**  
**THALIKULAM – 680569**



**CERTIFICATE**

*This is to certify that the project entitled “**DETECTION OF SQL INJECTION USING MACHINE LEARNING**” is a bonafide record of the work done by **DRISYA P.S(TTARMCA013)** of M.C.A sixth Semester, in partial fulfillment of the requirements of the award of Degree “Master of Computer Application” under the University of Calicut during the academic year **2017-2020***

Under the Guidance of: Associate Coordinator

Date: -----

*Submitted for University Examination held on.....  
At Centre for Computer Science and Information Technology, Thalikulam*

Examiner(s): 1)

2)

# **DECLARATION**

I *DRISYA P.S* do here by declare that the project work entitled “**DETECTION OF SQL INJECTION USING MACHINE LEARNING**” submitted to Calicut University in partial fulfillment of the requirement for the Degree of Master of Computer Application is a original work done by us under the guidance of **Mrs.SUBHADRA B MENON Lecturer** in charge of Centre for Computer Science and Information Technology, Thalikulam.

**Place :Thalikulam**

**DRISYA P S (TTARMCA13)**

**Date :**

## **ACKNOWLEDGEMENT**

We very thankful of those who had given me handful advice and perfect guidance for the completion of the project named as **DETECTION OF SQL INJECTION USING MACHINE LEARNING** I firstly thank my lecture **Mrs.SUBHADRA B MENON** for giving all the essential guidance and tips throught the project.It is through this column,it would be my outmost pleasure to express my warm thanks to him for the moral support and guidance with which we are able to accomplish this project .

We also express oursincerethanksto**Mrs.Deepthi K.V**,Associate\_coordinator,CCSIT Thalikulam for providing the infrastructure to carry out the project and to all staff who are directly instrument in enabling us to committed for the project.We also express my sincere thanks to **Mrs.Greeshma P.V** ,Administrative officer, CCSIT Thalikulam,for providing me all the technical facilities for the successful completion of the project

It's our pleasure to thank my classmates for all kinds of cooperation and help towards the completion of the project.Once again we thank to one and all who have helped me directly and indirectly in the successful completion of the project work.

# **SYNOPSIS**

Sharing information over the Internet over multiple platforms and web-applications has become a quite common phenomenon in the recent times. The web-based applications that accept critical information from users store this information in databases. These applications and the databases connected to them are susceptible to all kinds of information security threats due to being accessible through the Internet. The threats include attacks such as Cross Side Scripting (CSS), Denial of Service Attack (DoS), and Structured Query Language (SQL) Injection attacks. SQL Injection attacks fall under the top ten vulnerabilities when we talk about web-based applications. Through this kind of attack, the attacker can steal critical and confidential information and hence it could have damaging effects on a business or organization. The effects could range from monetary loss, leaking confidential business information, decrease in company's stock market value or any combination of these. In this paper we have used an algorithm called Gradient Boosting Classifier from ensemble machine learning approaches to classify and detect SQL Injection attacks.

## **MODULES**

### **1. ADMIN**

- Manage Category
- Manage Order
- Add Product
- View Product
- View Attackers

### **2. USER**

- Registration
- Make Payment
- Make Order
- View Product

- Add to cart

### 3. ATTACKER

- Registration
- Make Payment
- Make Order
- View Product
- Add to cart
- Attack