Wannabe Programmers

Hackathon Serres 2019

Scan me

Data Mining

- SQL Injection (/orders.php/?userid=bob'; update logintable set passwd='0wn3d';--)
- XSS (/register.php/?post==<?php print $settings[database][password]; ?>)
- Local File Inclusion (/xmlrpc.php/?page=/../../../../../../etc/passwd)

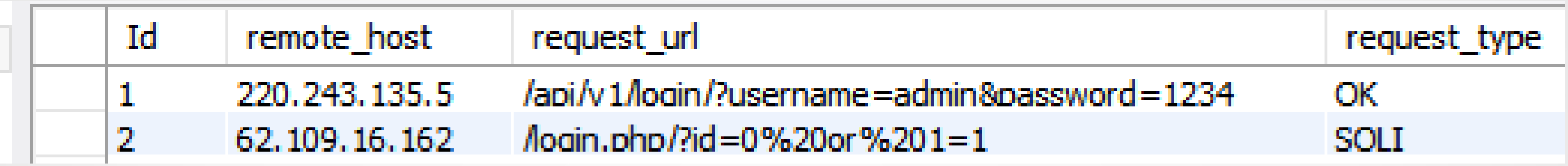
Detect certain chars in the request.

Parse Data

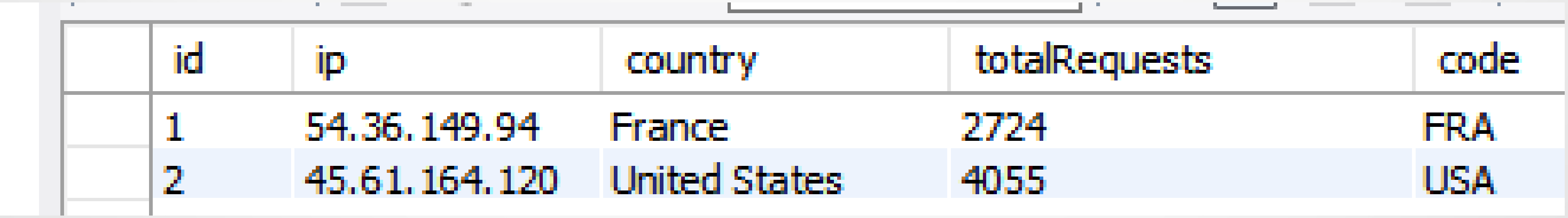
Using the Data Mining we labeled each request as:

- OK
- SQLI
- XSS
- LFI

SQL DataBase



Id	remote_host	request_url	request_type
1	220.243.135.5	/api/v1/login/?username=admin&password=1234	OK
2	62.109.16.162	/login.php/?id=0%20or%201=1	SQLI



id	ip	country	totalRequests	code
1	54.36.149.94	France	2724	FRA
2	45.61.164.120	United States	4055	USA

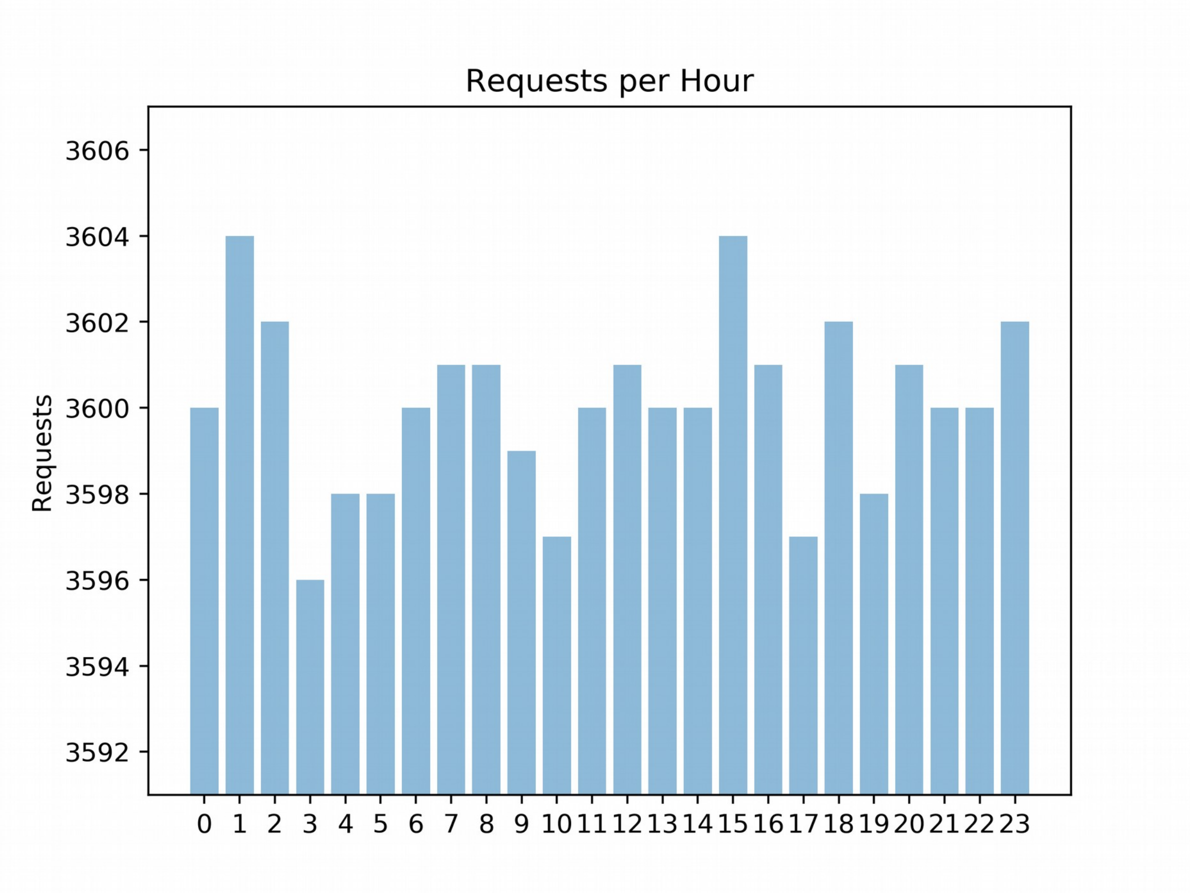
Answer to Questions

Most dangerous ip in our opinion:

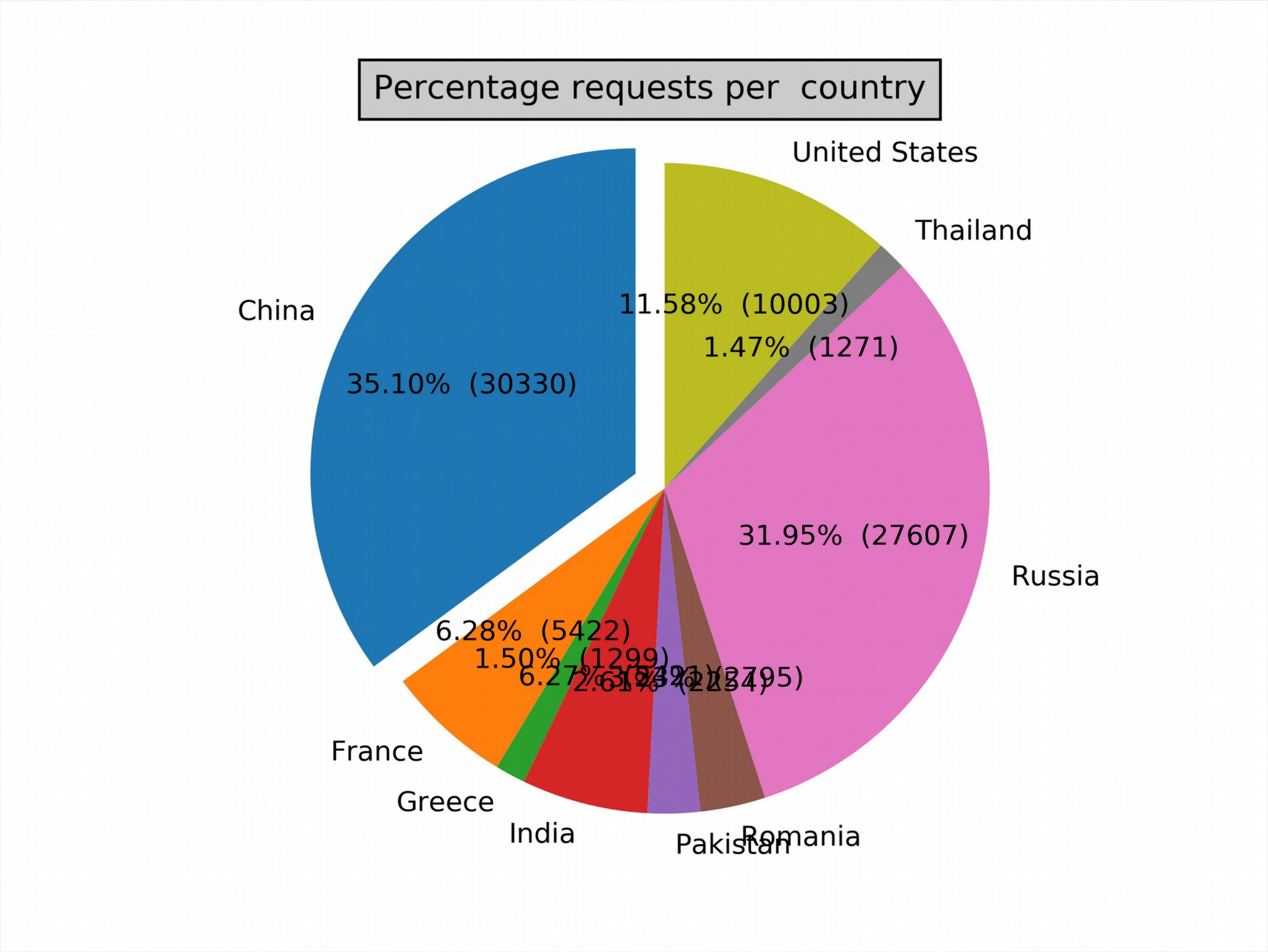
We used a function to evaluate the dangerousness of an ip, based on the number of each type of request.

Visualization

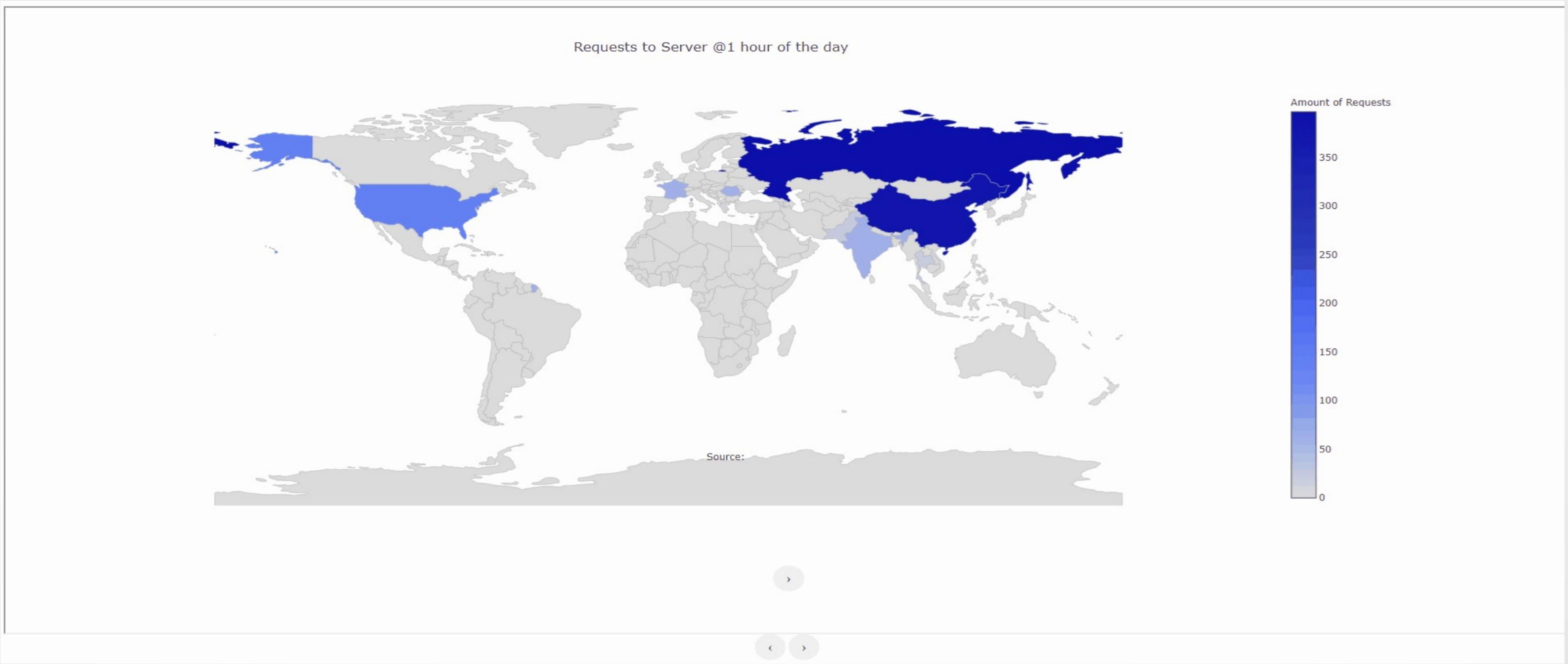
- Requests per hour



Visualization



Visualization Word



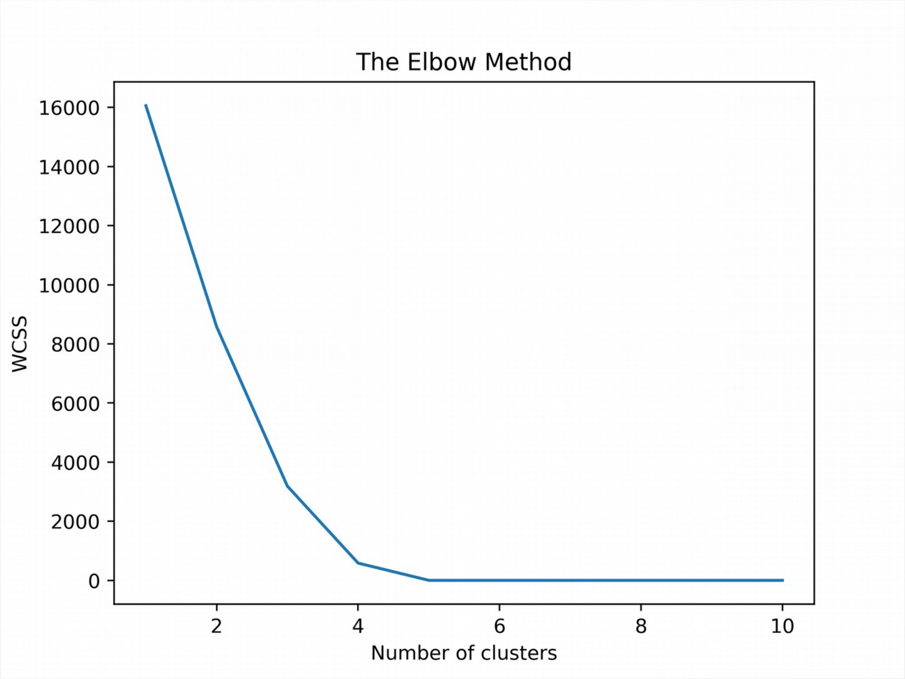
Site : https://bit.ly/2Js7Q4H

Machine Learning

- **Kmeans Clustering**

Strings→ 1,0 arrays based on some specific characters

Sum of Squares



Machine Learning

- **Random Forest Classifier**

Request → array of integers (unicode of chars)

Used 5-Fold cross validation:

- Accuracy 99%