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Secure your

WEB APPLICATIONS

BASIC WEB APPLICATION PENETRATION TESTING:-

TOPICS TO BE COVERED:-

1) INTRODUCTION TO WEB APPLICATION PENTESTING

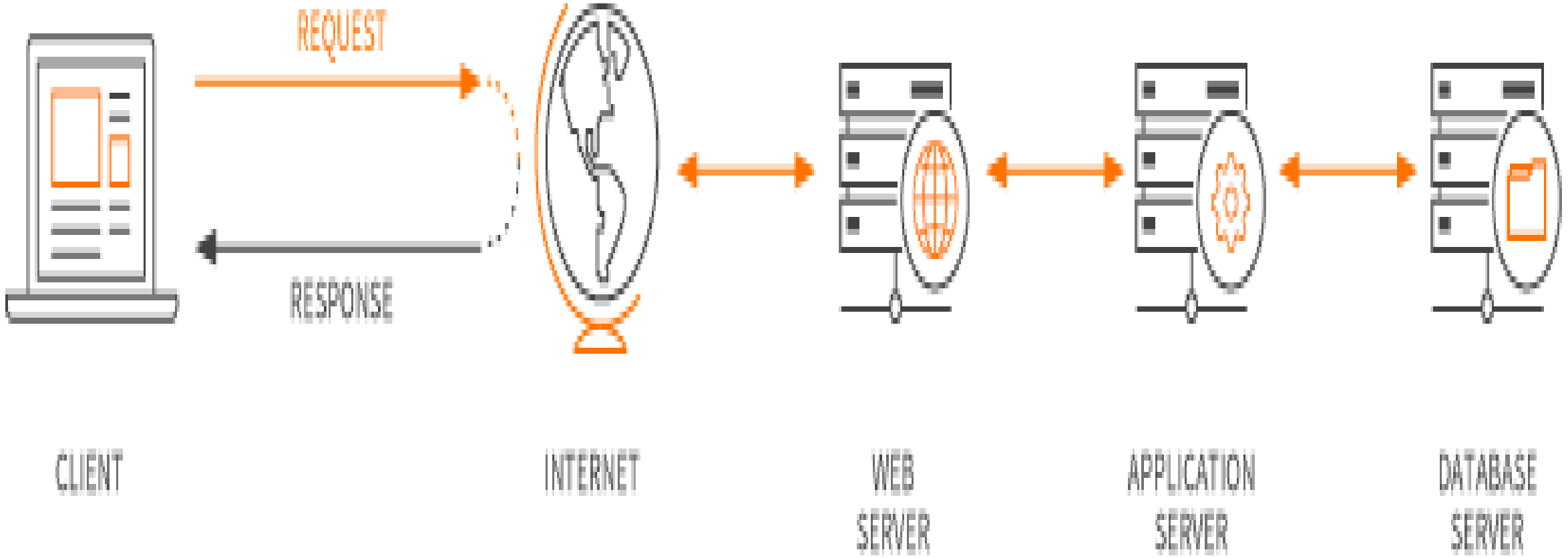
2)TYPES OF WEBAPPLICATION

3)ATTACKS

- (a)SQL injection
- (b)XSS(reflected,stored)
- (c)Command Injection
- (d)File inclusion

4)MITIGATION AGAINST SUCH ATTACKS

INTRODUCTION:-



Web Application Architecture

A web application is a computer program that utilizes web browsers and web technology to perform tasks over the Internet.

OVERVIEW

Millions of businesses use the Internet as a cost-effective communications channel. It lets them exchange information with their target market and make fast, secure transactions. However, effective engagement is only possible when the business is able to capture and store all the necessary data, and have a means of processing this information and presenting the results to the user.

Web applications use a combination of server-side scripts (PHP and ASP) to handle the storage and retrieval of the information, and client-side scripts (JavaScript and HTML) to present information to users. This allows users to interact with the company using online forms, content management systems, shopping carts and more. In addition, the applications allow employees to create documents, share information, collaborate on projects, and work on common documents regardless of location or device.

Working OF WEBAPPLICATION

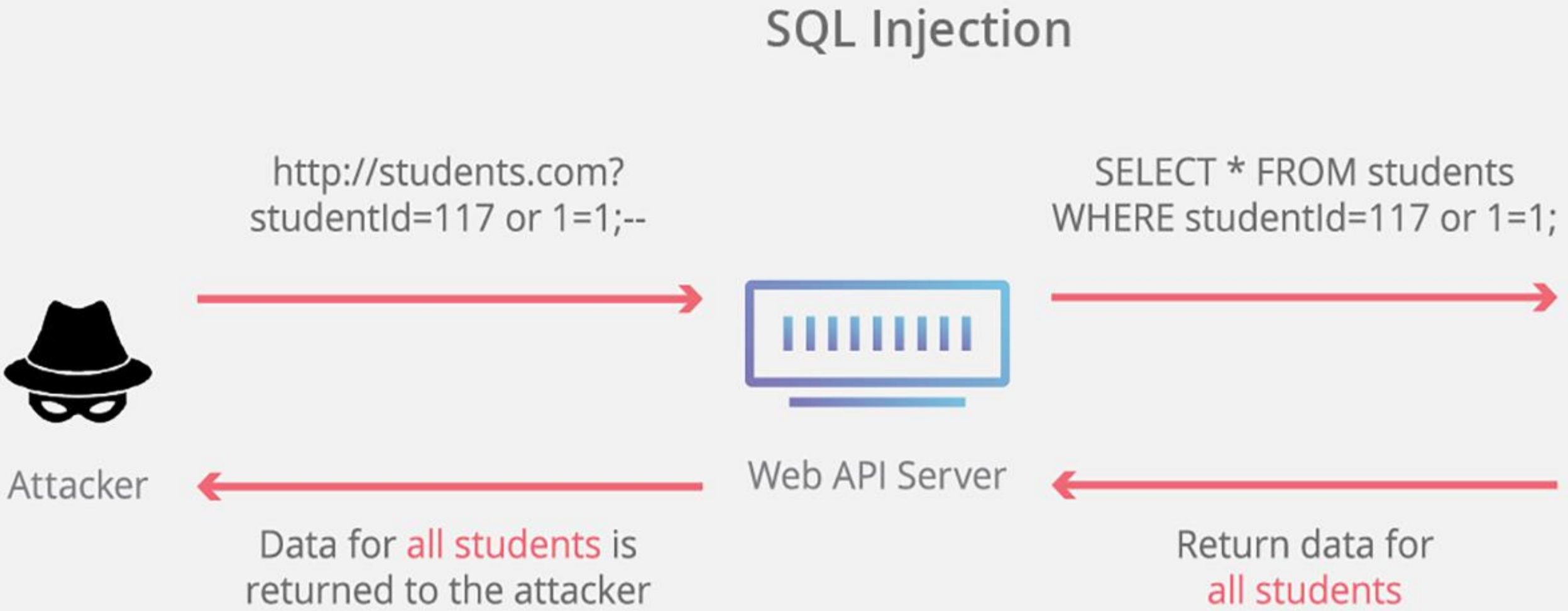
1)User triggers a request to the web server over the Internet, either through a web browser or the application's user interface

2)Web server forwards this request to the appropriate web application server
Web application server performs the requested task – such as querying the database or processing the data – then generates the results of the requested data

3)Web application server sends results to the web server with the requested information or processed data

4)Web server responds back to the client with the requested information that then appears on the user's display

SQL INJECTION:-



Geeky Baba

Reflected XSS Attacks

(Cross Site Scripting)

Website Visitor

2 Link is sent to victim via email

3 Victim conned into clicking the link

5 Browser sends session cookies to the perpetrator, enabling access to the victim's private data

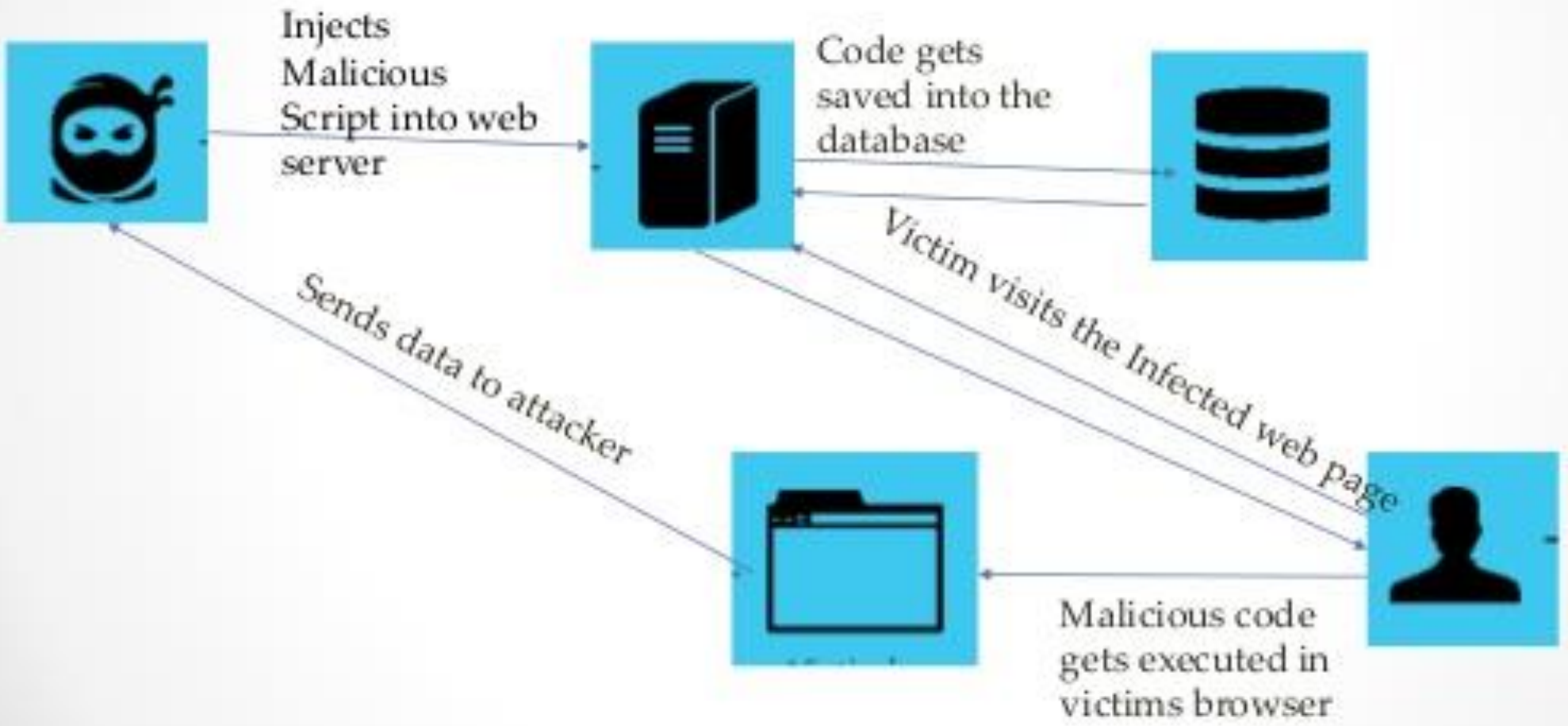
Perpetrator

Website

1 Perpetrator embeds a malicious script, enabling the viewing of user session cookies, into a hyperlink

4 The script is executed by the web application and reflected back to victim's browser

How stored XSS is exploited



Input

The application executes a predefined command, which is specified by the application itself

Output

The output of the command execution is sent to the user

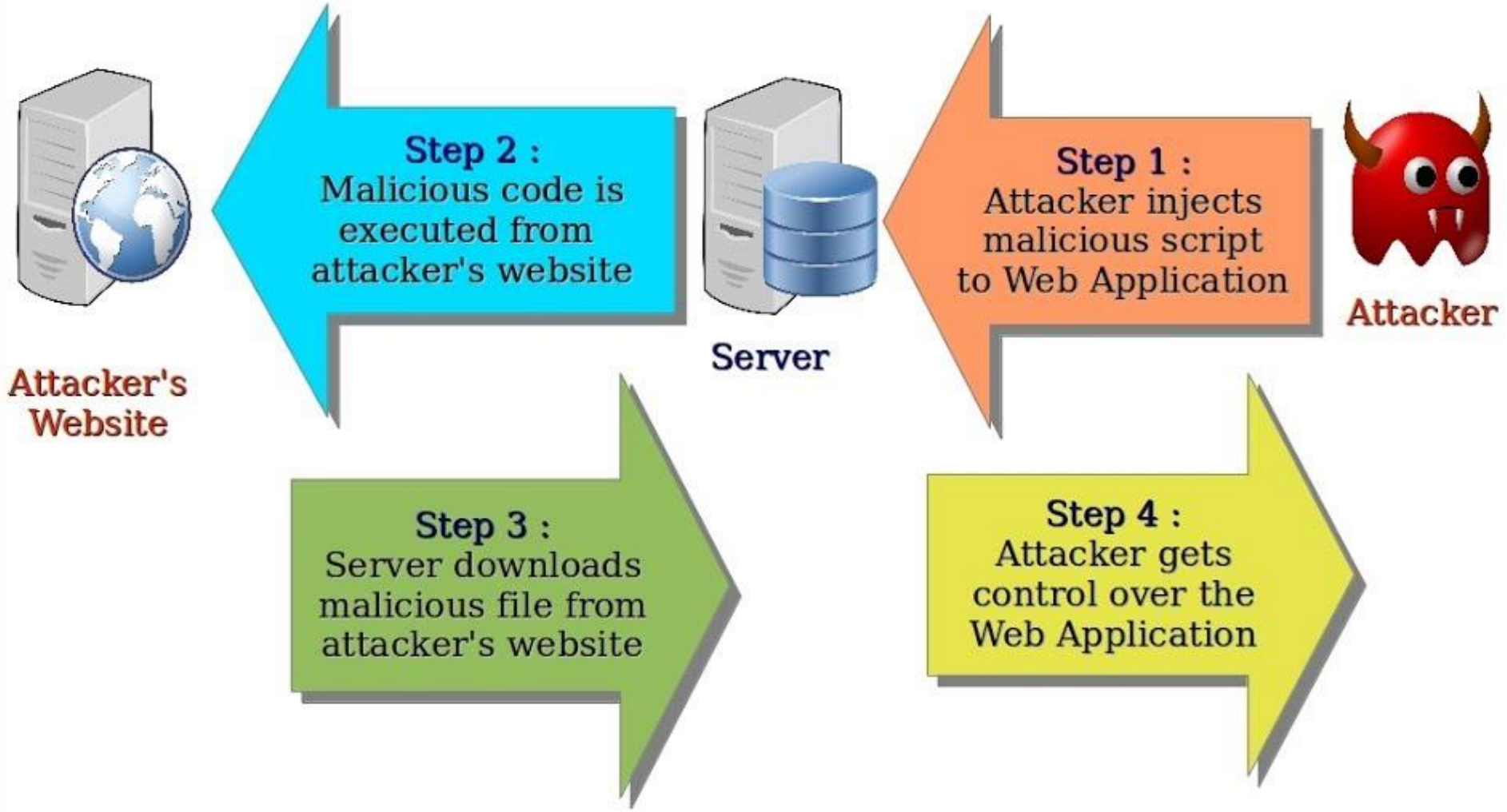
Input (including an arbitrary command)

The application executes an arbitrary command as specified by the attacker

Output

The output of the command execution is sent to the attacker

File Inclusion Attack



NPCERT and ICTFRAME.COM Jointly Hosted First Cyber Security Meetup In Nepal