#### **GROUP 1**

#### TASK A: EXTRACT USEFUL INFORMATION FROM CVE DESCRIPTIONS

Given the following CVE descriptions, fill the related form with the required information.

#### **EXAMPLE:**

### **CVE DESCRIPTION**

The ironic-api service in OpenStack Ironic before 4\_2\_5 (Liberty) and 5\_x before 5\_1\_2 (Mitaka) allows remote attackers to obtain sensitive information about a registered node by leveraging knowledge of the MAC address of a network card belonging to that node and sending a crafted POST request to the v1/drivers/\$DRIVER\_NAME/vendor\_passthru resource

Name of the	
	OpenCtack Inonia
software affected	OpenStack Ironic
by the vulnerability	
Versions of the	
Software affected	5_x
by the vulnerability	
Versions before	
which the software	
is affected by the	5_1_2
vulnerability	
Vulnerability name	(in this case the name of the vulnerability does
	not appear in the description)
Type of Attacker	
who could exploit	Remote Attackers
the vulnerability	
Source of the	Leveraging knowledge of the address and sending
vulnerability	POST request
Effects of the	Obtain sensitive information
vulnerability	
Vulnerability	Information Disclosure and/or Arbitrary File Read
Category	
Time taken to	
extract the	1m 42s
required	
information	

# **Categories of Vulnerabilities**

Category	Description
Authentication bypass or Improper Authorization	An exploitation of this issue might allow an attacker to bypass the required authentication. Or the application does not perform properly the authentication check, when an user attempts to access a resource without the necessary permissions.
Cross-Site Scripting or HTML Injection	An exploitation of this issue might allow an attacker to execute arbitrary script code in the web browser of the site visitor and steal his cookie-based authentication credentials.
Denial Of Service (DoS)	An exploitation of this issue might allow an attacker to crash the affected application, denying any further access.
Directory Traversal	An exploitation of this issue might allow an attacker to gain read access to arbitrary file content on the affected system.
Local File Include, Remote File Include and Arbitrary File Upload	An exploitation of this issue might allow an attacker to include arbitrary remote files containing malicious code. The code could then be executed on the affected system with the webserver process privileges.
Information Disclosure and/or Arbitrary File Read	An exploitation of this issue might allow an attacker to get access to arbitrary files on the affected system.
Buffer/Stack/Heap/ Integer Overflow, Format String and Off-by-One	Input data are copied to an insufficiently sized memory buffer. An exploitation of this issue might allow an attacker to execute arbitrary code in the context of the affected application or cause denial of service conditions.
Remote Code Execution	An exploitation of this issue might allow an attacker to execute arbitrary code within the context of the affected application, potentially allowing an unauthorized access or a privilege escalation.
SQL Injection	The vulnerable application does not properly sanitize user supplied input data before using them in a SQL query. An exploitation of this issue might allow an attacker to compromise, access and modify data on the affected system with the database user process privileges.
Unspecified Vulnerability	A successful exploitation of this issue might allow an authenticated attacker to affect confidentiality or integrity or availability or all of them.

### **CVE DESCRIPTION #1 (CVE-2015-5174)**

Directory traversal vulnerability in path-0 in Apache Tomcat 6\_x before 6\_0\_45, 7\_x before 7\_0\_65, and 8\_x before 8\_0\_27 allows remote authenticated users to bypass intended SecurityManager restrictions and list a parent directory via a /.. (slash dot dot) in a pathname used by a web application in a getResource, getResourceAsStream, or getResourcePaths call, as demonstrated by the \$CATALINA\_BASE/webapps directory.

Name of the	Apache Tomcat
software affected	
by the vulnerability	
Versions of the	6 x, 7 x, 8 x
Software affected	
by the vulnerability	
Versions before	6 0 45, 7 0 65, 8 0 27
which the software	
is affected by the	
vulnerability	
Vulnerability name	Directory trasversal vulnerability in path-0
Type of Attacker	In this case the attacker doesn't appear in the
who could exploit	description
the vulnerability	
Source of the	\$CATALINA_BASE/webapps directory
vulnerability	
Effects of the	It allows remote authenticated users to bypass
vulnerability	intended SecurityManager restrictions andlist a
-	parent directory via a / in a pathname used by a
	web application in a getResource,
	getResourceAsStream, or getResourcePaths call
Vulnerability	Directory traversal
Category	
Time taken to	5m 20s
extract the	
required	
information	

## **CVE DESCRIPTION #2 (CVE-2016-6289)**

Integer overflow in the virtual\_file\_ex function in path-0 in PHP before 5\_5\_38, 5\_6\_x before 5\_6\_24, and 7\_x before 7\_0\_9 allows remote attackers to cause a denial of service (stack-based buffer overflow) or possibly have unspecified other impact via a crafted extract operation on a ZIP archive.

Name of the	PHP
software affected	
by the vulnerability	
Versions of the	5_6_x, 7_x
Software affected	
by the vulnerability	
Versions before	5_6_24, 7_0_9
which the software	
is affected by the	
vulnerability	
Vulnerability name	In this case the vulnerability doesn't appear in
	the description
Type of Attacker	Remote attackers
who could exploit	
the vulnerability	
Source of the	Integer overflow in the virtual_file_ex function
vulnerability	in path-0
Effects of the	It allows remote attackersto cause a denial of
vulnerability	service or possibly have unspecified other impact
	via a crafted extract operation on a ZIP archive
Vulnerability	Buffer/Stack/Heap Integer Overflow, Format String
Category	and Off-by-One
Time taken to	5m 10s
extract the	
required	
information	

## **CVE DESCRIPTION #3 (CVE-2016-4072)**

The Phar extension in PHP before  $5\_5\_34$ ,  $5\_6\_x$  before  $5\_6\_20$ , and  $7\_x$  before  $7\_0\_5$  allows remote attackers to execute arbitrary code via a crafted filename, as demonstrated by mishandling of  $\0$  characters by the phar\_analyze\_path function in path-0

Name of the	PHP
software affected	
by the vulnerability	
Versions of the	5_6_x 7_x
Software affected	
by the vulnerability	
Versions before	5_5_34, 5_6_20, 7_0_5
which the software	
is affected by the	
vulnerability	
Vulnerability name	Phar extension
Type of Attacker	Remote attacker
who could exploit	
the vulnerability	
Source of the	Phar_analyze_path function in path-0
vulnerability	
Effects of the	It executes arbitrary code via a crafted filename
vulnerability	
Vulnerability	Remote Code execution
Category	
Time taken to	5m 30s
extract the	
required	
information	

## **CVE DESCRIPTION #4 (CVE-2016-2108)**

The path-0 implementation in OpenSSL before 1\_0\_10 and 1\_0\_2 before 1\_0\_2c allows remote attackers to execute arbitrary code or cause a denial of service (buffer underflow and memory corruption) via an ANY field in crafted serialized data, aka the "negative zero" issue.

Name of the	OpenSSL
software affected	
by the vulnerability	
Versions of the	1_0_2
Software affected	
by the vulnerability	
Versions before	1_0_1o, 1_0_2c
which the software	
is affected by the	
vulnerability	
<b>Vulnerability name</b>	"Negative zero" issue
Type of Attacker	Remote attacker
who could exploit	
the vulnerability	
Source of the	path-0
vulnerability	
Effects of the	It execute arbitrary code or cause a denial of
vulnerability	service via an ANY field in crafted serialized
	data
Vulnerability	Buffer/Stack/Heap Integer Overflow, Format String
Category	and Off-by-One
Time taken to	4m 10s
extract the	
required	
information	

## **CVE DESCRIPTION #5 (CVE-2016-7128)**

The exif\_process\_IFD\_in\_TIFF function in path-0 in PHP before 5\_6\_25 and 7\_x before 7\_0\_10 mishandles the case of a thumbnail offset that exceeds the file size, which allows remote attackers to obtain sensitive information from process memory via a crafted TIFF image.

Name of the	מווח
Name of the	PHP
software affected	
by the vulnerability	
Versions of the	5_6_25, 7_x
Software affected	
by the vulnerability	
Versions before	7_0_10
which the software	
is affected by the	
vulnerability	
Vulnerability name	Not specified
Type of Attacker	Remote attackers
who could exploit	
the vulnerability	
Source of the	exif_process_IFD_in_TIFF function in path-0
vulnerability	
Effects of the	It allows to obtain sensitive information from
vulnerability	process memory via a crafted TIFF image
Vulnerability	Unspecified vulnerability
Category	
Time taken to	5m 40s
extract the	
required	
information	