

# Web Application Report

This report includes important security information about your web application.

## **Security Report**

This report was created by IBM Security AppScan Standard 9.0.3.13, Rules: 18533 Scan started: 10/20/2019 3:02:20 PM

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## **Issues Sorted by Issue Type**

- Link to Non-Existing Domain Found ①
- Unencrypted Login Request 1
- Body Parameters Accepted in Query 1
- Missing or insecure "Content-Security-Policy" header 3
- Missing or insecure "X-Content-Type-Options" header 3
- Missing or insecure "X-XSS-Protection" header 3

#### **Fix Recommendations**

- Always use SSL and POST (body) parameters when sending sensitive information.
- Remove the non-existing domain from the web site
- Config your server to use the "Content-Security-Policy" header with secure policies
- Config your server to use the "X-Content-Type-Options" header with "nosniff" value
- Config your server to use the "X-XSS-Protection" header with value '1' (enabled)
- Do not accept body parameters that are sent in the query string

### **Advisories**

- Link to Non-Existing Domain Found
- Unencrypted Login Request
- Body Parameters Accepted in Query
- Missing or insecure "Content-Security-Policy" header
- Missing or insecure "X-Content-Type-Options" header
- Missing or insecure "X-XSS-Protection" header

## **Application Data**

- Cookies
- JavaScripts
- Parameters
- Comments
- Visited URLs
- Failed Requests
- Filtered URLs

## Introduction

This report contains the results of a web application security scan performed by IBM Security AppScan Standard.

High severity issues: 2
Low severity issues: 10
Total security issues included in the report: 12
Total security issues discovered in the scan: 12

#### **General Information**

Scan file name: MohanLal\_201019
Scan started: 10/20/2019 3:02:20 PM

Test policy: Default

Host 10.90.171.82

Port 8080
Operating system: Unknown
Web server: Apache
Application server: Tomcat

## **Login Settings**

Login method: Recorded login

Concurrent logins: Enabled

JavaScript execution: Disabled

In-session detection: Enabled

In-session pattern:

Tracked or session ID cookies:
Tracked or session ID parameters:

Login sequence: http://10.90.171.82:8080/hpcl\_grp1/Event/

# Summary

## Issue Types 6

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	Issue Type	Number of Issues	
Н	Link to Non-Existing Domain Found	1	
Н	Unencrypted Login Request	1	
L	Body Parameters Accepted in Query	1	
L	Missing or insecure "Content-Security-Policy" header	3	
L	Missing or insecure "X-Content-Type-Options" header	3	
L	Missing or insecure "X-XSS-Protection" header	3	

## Vulnerable URLs 4

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URL		Num	ber of Issues
H http://10.90.	171.82:8080/hpcl_grp1/Event/	1	
H http://10.90.	171.82:8080/hpcl_grp1/Event/login.jsp	5	
L http://10.90.	171.82:8080/hpcl_grp1/Event/js/jquery-1.11.1.min.js	3	
L http://10.90.	171.82:8080/hpcl_grp1/Event/js/snow.js	3	

## Fix Recommendations 6

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Remediation Task	Number of Issues
Always use SSL and POST (body) parameters when sending sensitive information.	1
Remove the non-existing domain from the web site	1
Config your server to use the "Content-Security-Policy" header with secure policies	3
Config your server to use the "X-Content-Type-Options" header with	3

	"nosniff" value		
L	Config your server to use the "X-XSS-Protection" header with value '1' (enabled)	3	
L	Do not accept body parameters that are sent in the query string	1	

## Security Risks 3

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	Risk	Number of Issues
Н	It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.	11
Н	It may be possible to steal user login information such as usernames and passwords that are sent unencrypted	1
L	It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations	10

Causes 3

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	Cause	Number of Issues
Н	The web application contains a link to a non-existing domain	1
Н	Sensitive input fields such as usernames, password and credit card numbers are passed unencrypted	1
L	Insecure web application programming or configuration	10

## **WASC Threat Classification**

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Threat	Number of Issues
Information Leakage	10
Insufficient Transport Layer Protection	1
URL Redirector Abuse	1

# Issues Sorted by Issue Type

H Link to Non-Existing Domain Found 1

Issue 1 of 1

Link to Non-Existing Domain Found		
Severity:	High	
CVSS Score:	8.5	
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/	
Entity:	https://maxcdn.bootstrapcdn.com/font-awesome/4.4.0/css/font-awesome.min.css (Link)	
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.	
Causes:	The web application contains a link to a non-existing domain	
Fix:	Remove the non-existing domain from the web site	

#### Difference:

**Reasoning:** AppScan found a link to an external site, and was not able to resolve it **Test Requests and Responses:** 

```
GET /hpcl_grp1/Event/ HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Length: 2678
Date: Sun, 20 Oct 2019 10:02:38 GMT
Content-Type: text/html;charset=ISO-8859-1

<hr/>
<html>
<head>
<title>Event Nomination</title>
<meta charset="utf-8"></meta charset="utf-8"
```

```
<meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/font-awesome/4.4.0/css/font-</pre>
awesome.min.css">
  <link rel="stylesheet" href="css/style1.css">
<link rel="stylesheet" href="css/styles.css">
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<script src="js/jquery-1.11.1.min.js" type="text/javascript"></script>
<script type="text/javascript" src="js/snow.js"></script>
.listTh{
  background-color: #297DB5;
   --- opacity: .4;
</style>
<script type="text/javascript">
$(function() {
 //$(document).snow({ SnowImage:
["images/star1.png", "images/star2.png", "images/star3.jpg", "images/star4.gif"], Quantity: 20 });
});
</script>
<style>
.indexForm {background-color: #cef6f5; background: url("images/bgGif1.gif");}
</style>
</head>
<body>
<img</pre>
src="images/logo3.png" style="height:90px;float:left;"></img>
<label id ="masterheader"><font color="white" style= "bold">Event Nomination </font></label>
<div style='color:white; font-size:24px; margin-top:10px;'>Employee Connect / Reboot35+ /
Yuvantage / Sampark</div>
<div class = "indexForm">
<form id="login" action="login.jsp" autocomplete="off" method="POST" onsubmit="return
FrontPage Form1 Validator(this)" name="FrontPage_Form1" >
<!--<div class="masthead">
<div ><h1 class="site-title" style="margin-left:30%" >Intimation under CDA rule</h1></div>
</div>-->
<div class="login">
     <h1>Login</h1>
       <input type="text" name="t1" id="t1" MAXLENGTH="8" placeholder="Employe No.">
       <input type="password" name="t2" id="t2" placeholder="Password">
       <input type="submit" name="commit" value="Login">
 </div><br/><br/>
 <div style="width: 490px; margin-left: auto; margin-right: auto; margin-top: 20%;"</pre>
align="center">
        <div style="margin-bottom: 10%;">'
               <a href="winner.jsp" style="text-decoration: none;">
                      <!--<div style="background: url('images/ribbon.png') no-repeat
scroll Opx Opx transparent; height: 170px; padding-top: 28px; font-size: 25px; font-weight: bold;
font-family: arial; color: white;">
                             <!--<span style="margin-left: 10px; margin-right:
250px;">Click</span>
                             <span>Here</span</pre>
                      </div>>-->
              </a>
        </div>
 </div>
</div>
</body>
</html>
```

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Issue 1 of 1

Unencrypt	Unencrypted Login Request		
Severity:	High		
CVSS Score:	8.5		
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp		
Entity:	t2 (Parameter)		
Risk:	It may be possible to steal user login information such as usernames and passwords that are sent unencrypted		
Causes:	Sensitive input fields such as usernames, password and credit card numbers are passed unencrypted		
Fix:	Always use SSL and POST (body) parameters when sending sensitive information.		

#### Difference:

**Reasoning:** AppScan identified a password parameter that was not sent over SSL. **Test Requests and Responses:** 

```
POST /hpcl_grp1/Event/login.jsp HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Content-Length: 28
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
Content-Type: application/x-www-form-urlencoded
t1=1234&t2=1234&commit=Login
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Length: 472
Date: Sun, 20 Oct 2019 10:02:44 GMT
Content-Type: text/html;charset=ISO-8859-1
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<form method="POST" action="" name="FrontPage_Form1">
<script language="Javascript">
```





<b>Body Para</b>	Body Parameters Accepted in Query		
Severity:	Low		
CVSS Score:	5.0		
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp		
Entity:	login.jsp (Page)		
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations		
Causes:	Insecure web application programming or configuration		
Fix:	Do not accept body parameters that are sent in the query string		

**Difference:** Body Parameter removed from request: 1234

Query Parameter added to request: 1234

Body Parameter removed from request: 1234

Query Parameter added to request: 1234

Body Parameter removed from request: Login

Query Parameter added to request: Login

Method manipulated from: POST to: GET

Reasoning: The test result seems to indicate a vulnerability because the Test Response is similar to

the Original Response, indicating that the application processed body parameters that were

submitted in the query

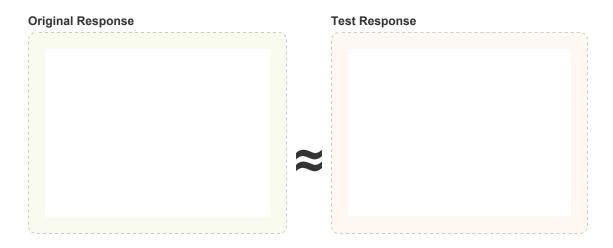
#### **Test Requests and Responses:**

```
GET /hpcl_grp1/Event/login.jsp?t1=1234&t2=1234&commit=Login HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl_grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
Content-Type: application/x-www-form-urlencoded

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Length: 472
Date: Sun, 20 Oct 2019 10:03:20 GMT
Content-Type: text/html;charset=ISO-8859-1
```

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">

<pr
```



Missing or insecure "Content-Security-Policy" header 3 Toc

Issue 1 of 3

Missing or insecure "Content-Security-Policy" header		
Severity:	Low	
CVSS Score:	5.0	
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/js/snow.js	
Entity:	snow.js (Page)	
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations	
Causes:	Insecure web application programming or configuration	
Fix:	Config your server to use the "Content-Security-Policy" header with secure policies	

#### Difference:

**Reasoning:** AppScan detected that the Content-Security-Policy response header is missing or with an insecure policy, which increases exposure to various cross-site injection attacks

#### **Test Requests and Responses:**

```
GET /hpcl_grp1/Event/js/snow.js HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl_grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
HTTP/1.1 200 OK
Last-Modified: Mon, 24 Nov 2014 12:00:26 GMT
Server: Apache-Coyote/1.1
Accept-Ranges: bytes
Content-Length: 2651
ETag: W/"2651-1416830426758"
Date: Sun, 20 Oct 2019 10:03:16 GMT
Content-Type: application/javascript
 * jQuery snow effects.
 ^{\star} This is a heavily modified, jQuery-adapted, browser-agnostic version of
 * "Snow Effect Script" by Altan d.o.o. (http://www.altan.hr/snow/index.html).
 * Dustin Oprea (2011)
function __ShowSnow(settings)
   var snowsrc = settings.SnowImage;
   var no = settings.Quantity;
                      // coordinate and position variables
   var dx, xp, yp;
   var am, stx, sty; // amplitude and step variables
   var doc width = $(window).width() - 10;
   var doc_height = $(window).height();
   dx = [];
   xp = [];
   yp = [];
   am = [];
   stx = [];
```

```
sty = [];
   flakes = [];
   for (i = 0; i < no; ++i)
       dx[i] = 0;
                          // set coordinate variables
       xp[i] = Math.random()*(doc_width-50); // set position variables
       yp[i] = Math.random()*doc_height;
       am[i] = Math.random()*20;
                                        // set amplitude variables
       stx[i] = 0.02 + Math.random()/10; // set step variables
       sty[i] = 0.7 + Math.random();  // set step variables
       var flake = $("<div />");
       var id = ("dot" + i);
       flake.attr("id", id);
       flake.css({
        position: "absolute",
         zIndex: i,
         top: "15px",
         left: "15px"
         });
       flake.append("<img src='" + snowsrc[i%4] + "'>");
       flake.appendTo("body");
       flakes[i] = $("#" + id);
   var animateSnow;
   animateSnow = function()
       for (i = 0; i < no; ++ i)
         // iterate for every dot
         yp[i] += sty[i];
         if (yp[i] > doc_height - 50)
         xp[i] = Math.random() * (doc_width - am[i] - 30);
         yp[i] = 0;
         stx[i] = 0.02 + Math.random() / 10;
         sty[i] = 0.7 + Math.random();
         dx[i] += stx[i];
         flakes[i].css("top", yp[i] + "px");
flakes[i].css("left", (xp[i] + am[i] * Math.sin(dx[i])) + "px");
       snowtimer = setTimeout(animateSnow, 10);
   };
function hidesnow()
   {
        if (window.snowtimer)
         clearTimeout(snowtimer)
       for (i = 0; i < no; i++)
        flakes[i].hide();
   animateSnow();
if (settings.HideSnowTime > 0)
       setTimeout(hidesnow, settings.HideSnowTime * 1000)
(function($) {
  $.fn.snow = function(options) {
   var settings = $.extend({
         SnowImage: undefined,
         Quantity:
                          7,
         HideSnowTime: 0
       }, options);
   __ShowSnow(settings);
   return this;
```

```
})(jQuery);
```

Issue 2 of 3

Missing o	Missing or insecure "Content-Security-Policy" header		
Severity:	Low		
CVSS Score:	5.0		
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp		
Entity:	login.jsp (Page)		
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations		
Causes:	Insecure web application programming or configuration		
Fix:	Config your server to use the "Content-Security-Policy" header with secure policies		

#### Difference:

**Reasoning:** AppScan detected that the Content-Security-Policy response header is missing or with an insecure policy, which increases exposure to various cross-site injection attacks

#### **Test Requests and Responses:**

```
POST /hpcl_grp1/Event/login.jsp HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Content-Length: 28
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
Content-Type: application/x-www-form-urlencoded
t1=1234&t2=1234&commit=Login
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Length: 472
Date: Sun, 20 Oct 2019 10:03:20 GMT
Content-Type: text/html;charset=ISO-8859-1
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
```

Issue 3 of 3

Missing or insecure "Content-Security-Policy" header		
Severity:	Low	
CVSS Score:	5.0	
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/js/jquery-1.11.1.min.js jquery-1.11.1.min.js (Page)	
Entity:		
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, password credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations	
Causes:	Insecure web application programming or configuration	
Fix:	Config your server to use the "Content-Security-Policy" header with secure policies	

#### Difference:

**Reasoning:** AppScan detected that the Content-Security-Policy response header is missing or with an insecure policy, which increases exposure to various cross-site injection attacks

#### **Test Requests and Responses:**

```
GET /hpcl_grp1/Event/js/jquery-1.11.1.min.js HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl_grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US

HTTP/1.1 200 OK
Last-Modified: Tue, 19 Aug 2014 05:12:15 GMT
Server: Apache-Coyote/1.1
Accept-Ranges: bytes
Content-Length: 95786
ETag: W/"95786-1408425135754"
```

```
Date: Sun, 20 Oct 2019 10:03:19 GMT
 Content-Type: application/javascript
 /*! jQuery v1.11.1 | (c) 2005, 2014 jQuery Foundation, Inc. | jquery.org/license */
!function(a,b){"object"==typeof module&&"object"==typeof module.exports?
module.exports=a.document?b(a,!0):function(a){if(!a.document)throw new Error("jQuery requires a
window with a document"); return b(a)}:b(a)}("undefined"!=typeof window?window:this,function(a,b)
 {var c=[],d=c.slice,e=c.concat,f=c.push,g=c.indexOf,h={},i=h.toString,j=h.hasOwnProperty,k=
  \{\}, l="1.11.1", m=function(a,b) {return new m.fn.init(a,b)}, n=/^[\s\uFEFF\xA0]+|
 [\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\s
b.toUpperCase()};m.fn=m.prototype={jquery:1,constructor:m,selector:"",length:0,toArray:function()
{return d.call(this)}, get:function(a){return null!=a?0>a?
 this[a+this.length]:this[a]:d.call(this)},pushStack:function(a){var
b=m.merge(this.constructor(),a);return
b.prevObject=this,b.context=this.context,b},each:function(a,b){return
m.each(this,a,b)}, map:function(a) {return this.pushStack(m.map(this,function(b,c) {return
 a.call(b,c,b)}))},slice:function(){return
 this.pushStack(d.apply(this,arguments))},first:function(){return this.eq(0)},last:function()
 \{\text{return this.eq(-1)}\}, \text{eq:function(a)} \{\text{var b=this.length,c=+a+(0>a?b:0)}; \text{return this.eq(-1)}\}
 this.pushStack(c>=0&&b>c?[this[c]]:[])},end:function(){return
this.prevObject||this.constructor(null)},push:f.sort:c.sort.splice:c.splice},m.extend=m.fn.extend
= \texttt{function()} \\ \{ \texttt{var a,b,c,d,e,f,g=arguments[0]||\{\},h=1,i=arguments.length,j=!1;for("boolean"==typeoflicent for the property of the pro
g\&\& (j=g,g=arguments[h]||\{\},h++),"object"==typeof g||m.isFunction(g)||(g=\{\}),h===i\&\&(g=this,h--1),"object"==typeof g||m.isFunction(g)||(g=\{\}),h==i\&\&(g=this,h--1),"object"==typeof g||m.isFunction(g)||(g=\{\}),h==i\&\&(g=this,h--1),"object"==typeof g||m.isFunction(g)||(g=\{\}),h==i\&\&(g=this,h--1),"object"==typeof g||m.isFunction(g)||(g=\{\}),h==i\&\&(g=this,h--1),"object"==typeof g||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFunction(g)||m.isFun
); i>h; h++) if (null!=(e=arguments[h])) for(d in e)a=g[d], c=e[d], g!==c&&(j&&c&&(m.isPlainObject(c)||
  (b=m.isArray(c)))?(b?(b=!1,f=a&&m.isArray(a)?a:[]):f=a&&m.isPlainObject(a)?a:
  \{\}, g[d] = m. extend(j, f, c)) : void 0! = c&&(g[d] = c)); return g\}, m. extend(\{expando: "jQuery" + content for the conten
   (l+Math.random()).replace(/\D/g,""),isReady:!0,error:function(a){throw new
Error(a)},noop:function(){},isFunction:function(a)
 {return"function"===m.type(a)},isArray:Array.isArray||function(a)
 {return"array"===m.type(a)},isWindow:function(a){return
null!=a&&a==a.window},isNumeric:function(a){return!m.isArray(a)&&a-
parseFloat(a)>=0},isEmptyObject:function(a) {var b;for(b in
 a) return!1; return!0}, isPlainObject:function(a) {var
b;if(!a||"object"!==m.type(a)||a.nodeType||m.isWindow(a))return!1;try{if(a.constructor&&!j.call(a
 ,"constructor") &&!j.call(a.constructor.prototype,"isPrototypeOf")) return!1}catch(c)
 {return!1}if(k.ownLast)for(b in a)return j.call(a,b);for(b in a);return void
0===b||j.call(a,b)},type:function(a){return null==a?a+"":"object"==typeof a||"function"==typeof
a?h[i.call(a)]||"object":typeof a},globalEval:function(b){b&&m.trim(b)&&
  (a.execScript||function(b){a.eval.call(a,b)})(b)},camelCase:function(a){return a.replace(o,"ms-
 ").replace(p,q)},nodeName:function(a,b){return
a.nodeName&&a.nodeName.toLowerCase() ===b.toLowerCase()}, each:function(a,b,c){var
\texttt{d,e=0,f=a.length,g=r(a);if(c)} \\ \texttt{(if(g)\{for(;f>e;e++)if(d=b.apply(a[e],c),d===!1)break} \\ \texttt{else for(e in all of al
a) if (d=b.apply(a[e],c),d===!1) break}else if (g)
 \{for(;f>e;e++)if(d=b.call(a[e],e,a[e]),d===!1)break\}else for(e in
a)if(d=b.call(a[e],e,a[e]),d===!1)break;return a},trim:function(a){return null==a?"":
 (a+"").replace(n,"")}, makeArray:function(a,b) {var c=b||[]; return null!=a&&(r(Object(a))?
m.merge(c, "string"==typeof a?[a]:a):f.call(c,a)),c},inArray:function(a,b,c){var d;if(b)
  \{ if(g) \ return \ g.call(b,a,c); for(d=b.length,c=c?0>c?Math.max(0,d+c):c:0;d>c;c++) if(c \ in the context of the context 
b&&b[c]===a)return c}return-1}, merge:function(a,b) {var
 c=+b.length, d=0, e=a.length; while (c>d) a[e++]=b[d++]; if (c!==c) while (void
0! = b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, c) \{for(var d, e=b[d])a[e++] = b[d++]; return a.length = e, a, grep: function(a, b, e=b[d])a[e++]; return a.length = e, a, grep: function(a, b, e=b[d])a[e++]; return a.length = e, a, grep: function(a, b, e=b[d])a[e++]; return a.length = e, a, grep: function(a, b, e=b[d])a[e++]; return a.length = e, a, grep: function(a, b, e=b[d])a[e++]; return a.length = e, a, grep: function(a, b, e=b[d])a[e++]; return a.length = e, a, grep: function(a, b, e=b[d])a[e++]; r
 [], f = 0, g = a.length, h = !c; g > f; f + +) d = !b(a[f], f), d! = +h&&e.push(a[f]); return e \}, map: function(a, b, c) {var} = (a, b,
\texttt{d}, \texttt{f=0}, \texttt{g=a.length}, \texttt{h=r}(\texttt{a}), \texttt{i=[]}; \texttt{if}(\texttt{h}) \texttt{for}(\texttt{;g>f;f++}) \texttt{d=b}(\texttt{a[f],f,c)}, \texttt{null!=d\&\&i.push(d);else} \texttt{ for}(\texttt{f} \texttt{ in}), \texttt{f=0}, \texttt{g=a.length}, \texttt{f=0}, \texttt{f
a) d=b(a[f],f,c),null!=d&&i.push(d);return e.apply([],i)},guid:1,proxy:function(a,b){var
c,e,f;return"string"==typeof b&&(f=a[b],b=a,a=f),m.isFunction(a)?
  (c=d.call(arguments,2),e=function(){return
 a.apply(b||this,c.concat(d.call(arguments)))},e.guid=a.guid=a.guid||m.guid++,e):void
0},now:function(){return+new Date},support:k}),m.each("Boolean Number String Function Array Date
 RegExp Object Error".split(" "),function(a,b){h["[object "+b+"]"]=b.toLowerCase()});function r(a)
{var
 . . .
 . . .
```

Missing or insecure "X-Content-Type-Options" header 3

TOC

Issue 1 of 3

Missing or insecure "X-Content-Type-Options" header		
Severity:	Low	
CVSS Score:	5.0	
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/js/jquery-1.11.1.min.js	
Entity:	jquery-1.11.1.min.js (Page)	
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations	
Causes:	Insecure web application programming or configuration	
Fix:	Config your server to use the "X-Content-Type-Options" header with "nosniff" value	

#### Difference:

**Reasoning:** AppScan detected that the "X-Content-Type-Options" response header is missing or has an insecure value, which increases exposure to drive-by download attacks

#### **Test Requests and Responses:**

```
GET /hpcl grp1/Event/js/jquery-1.11.1.min.js HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
HTTP/1.1 200 OK
Last-Modified: Tue, 19 Aug 2014 05:12:15 GMT
Server: Apache-Coyote/1.1
Accept-Ranges: bytes
Content-Length: 95786
ETag: W/"95786-1408425135754"
Date: Sun, 20 Oct 2019 10:03:19 GMT
Content-Type: application/javascript
 /*! jQuery v1.11.1 | (c) 2005, 2014 jQuery Foundation, Inc. | jquery.org/license */
!function(a,b){"object"==typeof module&&"object"==typeof module.exports?
module.exports=a.document?b(a,!0):function(a){if(!a.document)throw new Error("jQuery requires a
window with a document"); return b(a)}:b(a)}("undefined"!=typeof window: window: this, function(a,b)
 \{ \texttt{var c=[],d=c.slice,e=c.concat,f=c.push,g=c.indexOf,h=\{}\}, \texttt{i=h.toString,j=h.hasOwnProperty,k=local}\} \}
  \{\}, l="1.11.1", m=function(a,b) {return new m.fn.init(a,b)}, n=/^[\s\uFEFF\xA0]+|
 [\svarphi] (\s\uFEFF\xA0]+$/g,o=/^-ms-/,p=/-([\da-z])/gi,q=function(a,b){return}
b.toUpperCase()}; m.fn=m.prototype={jquery:1,constructor:m,selector:"",length:0,toArray:function()
{return d.call(this)},get:function(a){return null!=a?0>a?
this[a+this.length]:this[a]:d.call(this)},pushStack:function(a){var
b=m.merge(this.constructor(),a);return
b.prevObject=this,b.context=this.context,b},each:function(a,b){return
 \texttt{m.each(this,a,b)}, \texttt{map:function(a)} \\ \{\texttt{return this.pushStack(m.map(this,function(b,c),furturn this.pushStack(m.map(this,function(b,c),furturn this.pushStack(m.map(this,a,b),furturn this.pushStack(m.map(th
a.call(b,c,b)}))},slice:function(){return
this.pushStack(d.apply(this,arguments))},first:function(){return this.eq(0)},last:function()
\{\text{return this.eq(-1)}\}, \text{eq:function(a)} \{\text{var b=this.length,c=+a+(0>a?b:0)}; \text{return this.eq(-1)}\}
 this.pushStack(c>=0\&\&b>c?[this[c]]:[])\,\}, end:function()\,\{return
this.prevObject||this.constructor(null)},push:f,sort:c.sort,splice:c.splice},m.extend=m.fn.extend
= \texttt{function()} \\ \{ \texttt{var a,b,c,d,e,f,g} = \texttt{arguments[0]||} \\ \{ \texttt{\},h=1,i=arguments.length,j=!1;} \\ \texttt{for("boolean"==typeoflices)} \\ \texttt{for(boolean"==typeoflices)} \\ \texttt{for(boolean"=typeoflices)} \\
); i>h; h++) if (null!=(e=arguments[h])) for (d in e) a=g[d], c=e[d], g!==c\&\&(j\&\&c\&\&(m.isPlainObject(c)||) for (d in e) a=g[d], first (d in e) a=g[d], 
  (b=m.isArray(c)))?(b?(b=!1,f=a&&m.isArray(a)?a:[]):f=a&&m.isPlainObject(a)?a:
\{\},g[d]=m.extend(j,f,c)\}:void 0!==c&&(g[d]=c));return g\},m.extend({expando:"jQuery"+})
```

```
(l+Math.random()).replace(/\D/g,""),isReady:!0,error:function(a){throw new
 Error(a)},noop:function(){},isFunction:function(a)
 {return"function"===m.type(a)},isArray:Array.isArray||function(a)
 {return"array"===m.type(a)},isWindow:function(a){return
null!=a&&a==a.window},isNumeric:function(a) {return!m.isArray(a)&&a-
parseFloat(a)>=0},isEmptyObject:function(a){var b;for(b in
a) return!1; return!0}, isPlainObject:function(a) {var
b;if(!a||"object"!==m.type(a)||a.nodeType||m.isWindow(a))return!1;try{if(a.constructor&&!j.call(a
 ,"constructor") &&!j.call(a.constructor.prototype,"isPrototypeOf"))return!1}catch(c)
 {return!1}if(k.ownLast)for(b in a)return j.call(a,b);for(b in a);return void
 0===b||j.call(a,b)},type:function(a) {return null==a?a+"":"object"==typeof a||"function"==typeof
a?h[i.call(a)]||"object":typeof a},globalEval:function(b){b&&m.trim(b)&&
  (a.execScript||function(b){a.eval.call(a,b)})(b)},camelCase:function(a){return a.replace(o,"ms-
 ").replace(p,q)},nodeName:function(a,b){return
\verb|a.nodeName&&a.nodeName.toLowerCase()| === b.toLowerCase()|, each:function(a,b,c)| \\ \{varantee a.nodeName&&a.nodeName.toLowerCase()| === b.toLowerCase()| \\ \{varantee a.nodeName.toLowerCase()| == b.toLowerCase()| \\ \{varantee a.nodeName.toLo
a) if (d=b.apply(a[e],c),d===!1) break}else if (g)
 \{for(;f>e;e++)if(d=b.call(a[e],e,a[e]),d===!1)break\}else for(e in
a)if(d=b.call(a[e],e,a[e]),d===!1)break;return a},trim:function(a){return null==a?"":
 (a+"").replace(n,"")}, make Array: function(a,b) \\ \{var c=b||[]; return null!=a&&(r(Object(a))?) \\ \{var c=b||[]; return null
m.merge(c, "string"==typeof a?[a]:a):f.call(c,a)),c},inArray:function(a,b,c){var d;if(b)}
  \{ if(g) \ return \ g.call(b,a,c); for(d=b.length,c=c?0>c?Math.max(0,d+c):c:0;d>c;c++) if(c \ in the context of the context 
b&&b[c] === a) return c}return-1}, merge: function(a,b) {var
 c=+b.length, d=0, e=a.length; while (c>d) \, a\, [e++] = b\, [d++]\, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] = b\, [d++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] \, ; if (c\,!==c) \, while \, (void) \, a\, [e++] \, ; if (c\,!==c) \, while \, (void) \,
0! == b[d]) a[e++] = b[d++]; return \ a.length = e, a\}, grep: function(a,b,c) \{for(var \ d,e=b[d]) \} = b[d] = b[
 [], f = 0, g = a.length, h = !c; g > f; f + +) d = !b(a[f], f), d! = +h&&e.push(a[f]); return e \}, map: function(a, b, c) {var} = (a, b,
\texttt{d}, \texttt{f=0}, \texttt{g=a.length}, \texttt{h=r(a)}, \texttt{i=[];if(h)} \texttt{for(;g>f;f++)} \texttt{d=b(a[f],f,c)}, \texttt{null!=d\&\&i.push(d);else} \texttt{ for(f in for(f),f-f)} \texttt{d=b(f)} \texttt{d
c,e,f;return"string"==typeof b&&(f=a[b],b=a,a=f),m.isFunction(a)?
 (c=d.call(arguments,2),e=function(){return
0},now:function(){return+new Date},support:k}),m.each("Boolean Number String Function Array Date
RegExp Object Error".split(" "), function(a,b) {h["[object "+b+"]"]=b.toLowerCase()}); function r(a)
 . . .
 . . .
```

Issue 2 of 3

Missing or insecure "X-Content-Type-Options" header		
Severity:	Low	
CVSS Score:	5.0	
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/js/snow.js	
Entity:	snow.js (Page)	
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations	
Causes:	Insecure web application programming or configuration	
Fix:	Config your server to use the "X-Content-Type-Options" header with "nosniff" value	

#### Difference:

**Reasoning:** AppScan detected that the "X-Content-Type-Options" response header is missing or has an insecure value, which increases exposure to drive-by download attacks

**Test Requests and Responses:** 

```
GET /hpcl_grp1/Event/js/snow.js HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl_grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
HTTP/1.1 200 OK
Last-Modified: Mon, 24 Nov 2014 12:00:26 GMT
Server: Apache-Coyote/1.1
Accept-Ranges: bytes
Content-Length: 2651
ETag: W/"2651-1416830426758"
Date: Sun, 20 Oct 2019 10:03:16 GMT
Content-Type: application/javascript
 * jQuery snow effects.
 ^{\star} This is a heavily modified, jQuery-adapted, browser-agnostic version of
 * "Snow Effect Script" by Altan d.o.o. (http://www.altan.hr/snow/index.html).
 * Dustin Oprea (2011)
function __ShowSnow(settings)
    var snowsrc = settings.SnowImage;
    var no = settings.Quantity;
   var dx, xp, yp; // coordinate and position variables var am, stx, sty; // amplitude and step variables
   var doc_width = $(window).width() - 10;
var doc_height = $(window).height();
    dx = [];
    xp = [];
    yp = [];
    am = [];
    stx = [];
    sty = [];
    flakes = [];
for (i = 0; i < no; ++i)
         dx[i] = 0;
                              // set coordinate variables
        xp[i] = Math.random()*(doc width-50); // set position variables
         yp[i] = Math.random()*doc height;
                                             // set amplitude variables
         am[i] = Math.random()*20;
        stx[i] = 0.02 + Math.random()/10; // set step variables
sty[i] = 0.7 + Math.random(); // set step variables
        var flake = $("<div />");
         var id = ("dot" + i);
         flake.attr("id", id);
         flake.css({
          position: "absolute",
           zIndex: i,
           top: "15px",
          left: "15px"
         flake.append("<img src='" + snowsrc[i%4] + "'>");
         flake.appendTo("body");
         flakes[i] = $("#" + id);
    }
    var animateSnow;
    animateSnow = function()
```

```
for (i = 0; i < no; ++ i)
          // iterate for every dot
          yp[i] += sty[i];
if (yp[i] > doc_height - 50)
          xp[i] = Math.random() * (doc_width - am[i] - 30);
          yp[i] = 0;
          stx[i] = 0.02 + Math.random() / 10;
          sty[i] = 0.7 + Math.random();
          dx[i] += stx[i];
          fdx[i] = Stx[i],
flakes[i].css("top", yp[i] + "px");
flakes[i].css("left", (xp[i] + am[i] * Math.sin(dx[i])) + "px");
        snowtimer = setTimeout(animateSnow, 10);
 function hidesnow()
   {
        if(window.snowtimer)
         clearTimeout(snowtimer)
       flakes[i].hide();

       for (i = 0; i < no; i++)
    animateSnow();
 if (settings.HideSnowTime > 0)
       setTimeout(hidesnow, settings.HideSnowTime * 1000)
(function($) {
   $.fn.snow = function(options) {
   var settings = $.extend({
         SnowImage: undefined,
Quantity: 7,
          Quantity:
         HideSnowTime: 0
        }, options);
    ShowSnow(settings);
   return this;
}) (jQuery);
```

Issue 3 of 3

Missing or insecure "X-Content-Type-Options" header		
Severity:	Low	
CVSS Score:	5.0	
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp	
Entity:	login.jsp (Page)	
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, password credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations	
Causes:	Insecure web application programming or configuration	
Fix:	Config your server to use the "X-Content-Type-Options" header with "nosniff" value	

#### Difference:

**Reasoning:** AppScan detected that the "X-Content-Type-Options" response header is missing or has an insecure value, which increases exposure to drive-by download attacks

#### **Test Requests and Responses:**

```
POST /hpcl_grp1/Event/login.jsp HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Content-Length: 28
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
{\tt Content-Type: application/x-www-form-urlencoded}
t1=1234&t2=1234&commit=Login
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Length: 472
Date: Sun, 20 Oct 2019 10:03:20 GMT
Content-Type: text/html;charset=ISO-8859-1
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<form method="POST" action="" name="FrontPage_Form1">
 <script language="Javascript">
                alert("User not found.");
                 document.location.href = "index.jsp";
 </script>
         <script language="Javascript">
           alert("Please enter Proper Credentials.");
```

Missing or insecure "X-XSS-Protection" header 3

TOC

Issue 1 of 3

Missing or insecure "X-XSS-Protection" header		
Severity:	5.0 http://10.90.171.82:8080/hpcl_grp1/Event/js/jquery-1.11.1.min.js	
CVSS Score:		
URL:		
Entity:	jquery-1.11.1.min.js (Page)	
Risk:	Risk: It is possible to persuade a naive user to supply sensitive information such as username, passwo credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations	
Causes:	Insecure web application programming or configuration	
Fix:	Config your server to use the "X-XSS-Protection" header with value '1' (enabled)	

#### Difference:

**Reasoning:** AppScan detected that the X-XSS-Protection response header is missing or with an insecure value, which may allow Cross-Site Scripting attacks

#### **Test Requests and Responses:**

```
GET /hpcl_grp1/Event/js/jquery-1.11.1.min.js HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl_grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
HTTP/1.1 200 OK
Last-Modified: Tue, 19 Aug 2014 05:12:15 GMT
Server: Apache-Coyote/1.1
Accept-Ranges: bytes
Content-Length: 95786
ETag: W/"95786-1408425135754"
Date: Sun, 20 Oct 2019 10:03:19 GMT
Content-Type: application/javascript
/*! jQuery v1.11.1 | (c) 2005, 2014 jQuery Foundation, Inc. | jquery.org/license */
```

```
!function(a,b){"object"==typeof module&&"object"==typeof module.exports?
  module.exports=a.document?b(a,!0):function(a){if(!a.document)throw new Error("jQuery requires a
  window with a document"); return b(a)}:b(a)}("undefined"!=typeof window?window:this,function(a,b)
  {var c=[],d=c.slice,e=c.concat,f=c.push,g=c.indexOf,h={},i=h.toString,j=h.hasOwnProperty,k=
  {},l="1.11.1",m=function(a,b){return new m.fn.init(a,b)},n=/^[\s\uFEFF\xA0]+|
  [\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\svaref[xA0]+\s
 b.toUpperCase()};m.fn=m.prototype={jquery:1,constructor:m,selector:"",length:0,toArray:function()
  {return d.call(this)},get:function(a){return null!=a?0>a?
 this[a+this.length]:this[a]:d.call(this)},pushStack:function(a){var
 b=m.merge(this.constructor(),a);return
 b.prevObject=this,b.context=this.context,b},each:function(a,b){return
  \texttt{m.each(this,a,b)}, \texttt{map:function(a)} \\ \{\texttt{return this.pushStack(m.map(this,function(b,c),furturn this.pushStack(m.map(th
 a.call(b,c,b)}))},slice:function(){return
 this.pushStack(d.apply(this,arguments))},first:function(){return this.eq(0)},last:function()
  \label{eq:condition} $$\{ return\ this.eq(-1) \}$, eq:function(a) $\{ var\ b=this.length, c=+a+(0>a?b:0) \}$ return $$\{ var\ b=this.length, c=+a+(0>a?b:0) \}$. The second results $\{ var\ b=this.length, c=+a+(0>a?b:0) \}$ return $\{ var\ b=this.length, c=+a+(0>a?b:0) \}$. The second results $\{ var\ b=this.length, c=+a+(0>a?b:0) \}$ return $\{ var\ b=this.length, c=+a+(0>a?b:0) \}$. The second results $\{ var\ b=this.length, c=+a+(0>a?b:0) \}$ return $\{ var\ b=this.lengt
  this.pushStack(c>=0&&b>c?[this[c]]:[])},end:function(){return
  this.prevObject||this.constructor(null)},push:f,sort:c.sort,splice:c.splice},m.extend=m.fn.extend
  = function() \\ \{var\ a,b,c,d,e,f,g= arguments[0] \ | \ \{\},h=1,i= arguments.length,j=!1;for("boolean"==typeoflice of the proof of the 
 g\&\&(j=g,g=arguments[h]||\{\},h++),"object"==typeof|g||m.isFunction(g)||(g=\{\}),h===i\&\&(g=this,h--1), f(g=\{\}),h==i\&\&(g=this,h--1), f(g
  ); i > h; h++) if (null!=(e=arguments[h])) for (d in e) a=g[d], c=e[d], g!==c&& (j&&c&& (m.isPlainObject(c)||
  (b=m.isArray(c)))?(b?(b=!1,f=a&&m.isArray(a)?a:[]):f=a&&m.isPlainObject(a)?a:
  (l+Math.random()).replace(/\D/g,""),isReady:!0,error:function(a){throw new
 Error(a) }, noop:function() { }, isFunction:function(a)
  {return"function"===m.type(a)},isArray:Array.isArray||function(a)
  {return"array"===m.type(a)},isWindow:function(a){return
  null!=a&&a==a.window},isNumeric:function(a) {return!m.isArray(a)&&a-
 parseFloat(a) >= 0 }, is EmptyObject: function(a) {var b; for(b in
  a) return!1; return!0}, isPlainObject: function(a) {var
 b;if(!a||"object"!==m.type(a)||a.nodeType||m.isWindow(a))return!1;try{if(a.constructor&&!j.call(a
  , \verb"constructor") \&\&! \verb|j.call(a.constructor.prototype, "isPrototypeOf")) | return! 1 + catch(c) | catch(c) 
  {return!1}if(k.ownLast)for(b in a)return j.call(a,b);for(b in a);return void
 0===b||j.call(a,b)},type:function(a){return null==a?a+"":"object"==typeof a||"function"==typeof
  a?h[i.call(a)]||"object":typeof a},globalEval:function(b){b&&m.trim(b)&&
  (a.execScript||function(b){a.eval.call(a,b)})(b)},camelCase:function(a){return a.replace(o,"ms-
  ").replace(p,q)},nodeName:function(a,b){return
 a.nodeName&&a.nodeName.toLowerCase() ===b.toLowerCase() }, each:function(a,b,c) {var
 d, e=0, f=a.length, g=r(a); if(c) \{if(g)\{for(;f>e;e++)if(d=b.apply(a[e],c),d===!1)break\}else \ for(e\ in\ beautiful fine for fermion fermion for fermion for fermion for fermion for fermion for fermion for fermion fermion for fermion fermion for fermion fer
 a) if (d=b.apply(a[e],c), d===!1) break}else if (g)
  \{for(;f>e;e++)if(d=b.call(a[e],e,a[e]),d===!1)break\}else for(e in
 a)if(d=b.call(a[e],e,a[e]),d===!1)break;return a},trim:function(a){return null==a?"":
  (a+"").replace(n,"")}, make Array: function(a,b) \\ \{var c=b||[]; return null!=a&&(r(Object(a))?) \\ \{var c=b||[]; return null
  \texttt{m.merge(c,"string"==typeof a?[a]:a):f.call(c,a)),c}, \texttt{inArray:function(a,b,c)} \\ \{\texttt{var d;if(b)}\} 
   \{ \texttt{if}(\texttt{g}) \texttt{return g.call}(\texttt{b,a,c}); \texttt{for}(\texttt{d=b.length,c=c?0} > \texttt{c?Math.max}(\texttt{0,d+c}) : \texttt{c:0;d} > \texttt{c;c++}) \texttt{if}(\texttt{c} \texttt{ in} ) \} 
 b&&b[c] === a) return c}return-1}, merge: function(a,b) {var
 c=+b.length, d=0, e=a.length; while (c>d) a [e++]=b[d++]; if (c!==c) while (void) a [e++]=b[d++]
 [], f=0, g=a.length, h=!c; g>f; f++) d=!b(a[f], f), d!==h\&\&e.push(a[f]); return e \}, map: function(a,b,c) \{varallength, h=!c; g>f; f++) d=!b(a[f], f), d!==h\&\&e.push(a[f]); return e \}, map: function(a,b,c) \{varallength, h=!c; g>f; f++) d=!b(a[f], f), d!==h\&\&e.push(a[f]); return e \}, map: function(a,b,c) \{varallength, h=!c; g>f; f++) d=!b(a[f], f), d!==h\&\&e.push(a[f]); return e \}, map: function(a,b,c) \{varallength, h=!c; g>f; f++) d=!b(a[f], f), d!==h\&\&e.push(a[f]); return e \}, map: function(a,b,c) \{varallength, h=!c; g>f; f++) d=!b(a[f], f), d!==h\&\&e.push(a[f]); return e \}, map: function(a,b,c) \{varallength, h=!c; g>f; f++) d=!b(a[f], f), d!==h\&\&e.push(a[f]); return e \}, map: function(a,b,c) \{varallength, h=!c; g>f; f++) d=!b(a[f], f), d!=h\&\&e.push(a[f], f), d!=h\&Ae.push(a[f], f), d!=h\&Ae.pus
  a) d=b(a[f],f,c),null!=d&&i.push(d);return e.apply([],i)},guid:1,proxy:function(a,b){var
 c,e,f;return"string"==typeof b&&(f=a[b],b=a,a=f),m.isFunction(a)?
  (c=d.call(arguments,2),e=function(){return
 \verb|a.apply(b||this,c.concat(d.call(arguments)))||,e.guid=a.guid=a.guid+|m.guid++,e): void|
0}, now:function(){return+new Date}, support:k)), m.each("Boolean Number String Function Array Date RegExp Object Error".split(" "), function(a,b){h["[object "+b+"]"]=b.toLowerCase()}); function r(a)
  {var
  . . .
  . . .
```

Issue 2 of 3

Missing or insecure "X-XSS-Protection" header		
Severity:	Low	
CVSS Score:	5.0	
URL:	http://10.90.171.82:8080/hpcl_grp1/Event/js/snow.js	
Entity:	snow.js (Page)	
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, password credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations	
Causes:	Insecure web application programming or configuration	
Fix:	Config your server to use the "X-XSS-Protection" header with value '1' (enabled)	

#### Difference:

**Reasoning:** AppScan detected that the X-XSS-Protection response header is missing or with an insecure value, which may allow Cross-Site Scripting attacks

#### **Test Requests and Responses:**

```
GET /hpcl grp1/Event/js/snow.js HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
HTTP/1.1 200 OK
Last-Modified: Mon, 24 Nov 2014 12:00:26 GMT
Server: Apache-Coyote/1.1
Accept-Ranges: bytes
Content-Length: 2651
ETag: W/"2651-1416830426758"
Date: Sun, 20 Oct 2019 10:03:16 GMT
Content-Type: application/javascript
 * jQuery snow effects.
 ^{\star} This is a heavily modified, jQuery-adapted, browser-agnostic version of
 * "Snow Effect Script" by Altan d.o.o. (http://www.altan.hr/snow/index.html).
 * Dustin Oprea (2011)
function ShowSnow(settings)
    var snowsrc = settings.SnowImage;
    var no = settings.Quantity;
    var dx, xp, yp; // coordinate and position variables var am, stx, sty; // amplitude and step variables
    var i;
    var doc_width = $(window).width() - 10;
var doc_height = $(window).height();
    dx = [];
    xp = [];
    yp = [];
    am = [];
    stx = [];
```

```
sty = [];
   flakes = [];
   for (i = 0; i < no; ++i)
       dx[i] = 0;
                          // set coordinate variables
       xp[i] = Math.random()*(doc_width-50); // set position variables
       yp[i] = Math.random()*doc_height;
       am[i] = Math.random()*20;
                                        // set amplitude variables
       stx[i] = 0.02 + Math.random()/10; // set step variables
       sty[i] = 0.7 + Math.random();  // set step variables
       var flake = $("<div />");
       var id = ("dot" + i);
       flake.attr("id", id);
       flake.css({
        position: "absolute",
         zIndex: i,
         top: "15px",
         left: "15px"
         });
       flake.append("<img src='" + snowsrc[i%4] + "'>");
       flake.appendTo("body");
       flakes[i] = $("#" + id);
   var animateSnow;
   animateSnow = function()
       for (i = 0; i < no; ++ i)
         // iterate for every dot
         yp[i] += sty[i];
         if (yp[i] > doc_height - 50)
         xp[i] = Math.random() * (doc_width - am[i] - 30);
         yp[i] = 0;
         stx[i] = 0.02 + Math.random() / 10;
         sty[i] = 0.7 + Math.random();
         dx[i] += stx[i];
         flakes[i].css("top", yp[i] + "px");
flakes[i].css("left", (xp[i] + am[i] * Math.sin(dx[i])) + "px");
       snowtimer = setTimeout(animateSnow, 10);
   };
function hidesnow()
   {
        if (window.snowtimer)
         clearTimeout(snowtimer)
       for (i = 0; i < no; i++)
        flakes[i].hide();
   animateSnow();
if (settings.HideSnowTime > 0)
       setTimeout(hidesnow, settings.HideSnowTime * 1000)
(function($) {
  $.fn.snow = function(options) {
   var settings = $.extend({
         SnowImage: undefined,
         Quantity:
                          7,
         HideSnowTime: 0
       }, options);
   __ShowSnow(settings);
   return this;
```

```
})(jQuery);
```

Issue 3 of 3

Missing or insecure "X-XSS-Protection" header		
Severity:	Low  5.0  http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp login.jsp (Page)	
CVSS Score:		
URL:		
Entity:		
Risk:	It is possible to persuade a naive user to supply sensitive information such as username, passwo credit card number, social security number etc.  It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations	
Causes:	Insecure web application programming or configuration	
Fix:	Config your server to use the "X-XSS-Protection" header with value '1' (enabled)	

#### Difference:

**Reasoning:** AppScan detected that the X-XSS-Protection response header is missing or with an insecure value, which may allow Cross-Site Scripting attacks

#### **Test Requests and Responses:**

```
POST /hpcl_grp1/Event/login.jsp HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko
Referer: http://10.90.171.82:8080/hpcl grp1/Event/
Cookie: JSESSIONID=53BFA9957EA077ECA63B790E527D2A08
Connection: Keep-Alive
Host: 10.90.171.82:8080
Content-Length: 28
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US
Content-Type: application/x-www-form-urlencoded
t1=1234&t2=1234&commit=Login
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Length: 472
Date: Sun, 20 Oct 2019 10:03:20 GMT
Content-Type: text/html;charset=ISO-8859-1
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
```

## Fix Recommendations

Н

Always use SSL and POST (body) parameters when sending sensitive information.

TOC

### Issue Types that this task fixes

Unencrypted Login Request

#### General

- 1. Make sure that all login requests are sent encrypted to the server.
- 2. Make sure that sensitive information such as:
  - Username
  - Password
  - Social Security number
  - Credit Card number
  - Driver's License number
  - e-mail address
  - Phone number
  - Zip code

is always sent encrypted to the server.



Remove the non-existing domain from the web site

TOC

### Issue Types that this task fixes

Link to Non-Existing Domain Found

#### General

It is advised to remove all links to non-existent domains.

In addition, periodically check the validity of links to external sites.

L

Config your server to use the "Content-Security-Policy" header with secure policies

TOC

### Issue Types that this task fixes

Missing or insecure "Content-Security-Policy" header

#### General

Configure your server to send the "Content-Security-Policy" header.

For Apache, see:

http://httpd.apache.org/docs/2.2/mod/mod headers.html

For IIS, see:

https://technet.microsoft.com/pl-pl/library/cc753133%28v=ws.10%29.aspx

For nginx, see:

http://nginx.org/en/docs/http/ngx\_http\_headers\_module.html

L

Config your server to use the "X-Content-Type-Options" header with "nosniff" value

TOC

### Issue Types that this task fixes

Missing or insecure "X-Content-Type-Options" header

#### General

Configure your server to send the "X-Content-Type-Options" header with value "nosniff" on all outgoing requests.

For Apache, see:

http://httpd.apache.org/docs/2.2/mod/mod\_headers.html

For IIS, see:

https://technet.microsoft.com/pl-pl/library/cc753133%28v=ws.10%29.aspx

For nginx, see:

http://nginx.org/en/docs/http/ngx\_http\_headers\_module.html

### Issue Types that this task fixes

Missing or insecure "X-XSS-Protection" header

#### General

Configure your server to send the "X-XSS-Protection" header with value "1" (i.e. Enabled) on all outgoing requests.

#### For Apache, see:

http://httpd.apache.org/docs/2.2/mod/mod\_headers.html

For IIS, see:

https://technet.microsoft.com/pl-pl/library/cc753133%28v=ws.10%29.aspx

For nginx, see:

http://nginx.org/en/docs/http/ngx\_http\_headers\_module.html

Do not accept body parameters that are sent in the query string

TOC

## Issue Types that this task fixes

Body Parameters Accepted in Query

#### General

Re-program the application to disallow handling of POST parameters that were listed in the Query

## **Advisories**

## **Link to Non-Existing Domain Found**

TOC

#### Test Type:

Application-level test

#### Threat Classification:

**URL** Redirector Abuse

#### Causes:

The web application contains a link to a non-existing domain

#### Security Risks:

It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.

#### Affected Products:

#### CWE:

601

#### Technical Description:

The web site contains a link to a non-existent domain.

An attacker can exploit this scenario to launch a phishing attack by registering the non-existent domain. A naive user may browse to that link, thinking that he is within the original site, while in fact he is browsing the attacker site.

This situation may lead to sensitive information leakage, because the user trusts the malicious site.

## **Unencrypted Login Request**

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#### Test Type:

Application-level test

#### Threat Classification:

**Insufficient Transport Layer Protection** 

#### Causes:

Sensitive input fields such as usernames, password and credit card numbers are passed unencrypted

#### Security Risks:

It may be possible to steal user login information such as usernames and passwords that are sent unencrypted

#### Affected Products:

#### CWE:

523

#### X-Force:

52471

#### References:

Financial Privacy: The Gramm-Leach Bliley Act Health Insurance Portability and Accountability Act (HIPAA) Sarbanes-Oxley Act California SB1386

#### **Technical Description:**

During the application test, it was detected that an unencrypted login request was sent to the server. Since some of the input fields used in a login process (for example: usernames, passwords, e-mail addresses, social security number, etc.) are personal and sensitive, it is recommended that they will be sent to the server over an encrypted connection (e.g. SSL).

Any information sent to the server as clear text, may be stolen and used later for identity theft or user impersonation.

In addition, several privacy regulations state that sensitive information such as user credentials will always be sent encrypted to the web site.

## **Body Parameters Accepted in Query**

TOC

#### Test Type:

Application-level test

#### Threat Classification:

Information Leakage

#### Causes:

Insecure web application programming or configuration

#### Security Risks:

- It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations
- It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.

#### Affected Products:

#### CWE:

200

#### References:

Hypertext Transfer Protocol (HTTP/1.1) Semantics and Content:

**GET** 

**POST** 

#### **Technical Description:**

GET requests are designed to query the server, while POST requests are for submitting data.

However, aside from the technical purpose, attacking query parameters is easier than body parameters, because sending a link to the original site, or posting it in a blog or comment, is easier and has better results than the alternative - in order to attack a request with body parameters, an attacker would need to create a page containing a form that will be submitted when visited by the victim.

It is a lot harder to convince the victim to visit a page that he doesn't know, than letting him visit the original site. It it therefore not recommended to support body parameters that arrive in the query string.

## Missing or insecure "Content-Security-Policy" header

TOC

#### Test Type:

Application-level test

#### **Threat Classification:**

Information Leakage

#### Causes:

Insecure web application programming or configuration

#### Security Risks:

- It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations
- It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.

#### Affected Products:

#### CWE:

200

#### References:

List of useful HTTP headers An Introduction to Content Security Policy MDN web docs - Content-Security-Policy

#### **Technical Description:**

The "Content-Security-Policy" header is designed to modify the way browsers render pages, and thus to protect from various cross-site injections, including Cross-Site Scripting. It is important to set the header value correctly, in a way that will not prevent proper operation of the web site. For example, if the header is set to prevent execution of inline JavaScript, the web site must not use inline JavaScript in it's pages.

To protect against Cross-Site Scripting, Cross-Frame Scripting and clickjacking, it is important to set the following policies with proper values:

Both of 'default-src' and 'frame-ancestors' policies, \*OR\* all of 'script-src', 'object-src' and 'frame-ancestors' policies. For 'default-src', 'script-src' and 'object-src', insecure values such as '\*', 'data:', 'unsafe-inline' or 'unsafe-eval' should be avoided.

For 'frame-ancestors', insecure values such as '\*' or 'data:' should be avoided.

Please refer the following links for more information.

## Missing or insecure "X-Content-Type-Options" header

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#### Test Type:

Application-level test

#### Threat Classification:

Information Leakage

#### Causes:

Insecure web application programming or configuration

#### Security Risks:

- It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations
- It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.

#### Affected Products:

#### CWE:

200

#### References:

List of useful HTTP headers Reducing MIME type security risks

#### **Technical Description:**

The "X-Content-Type-Options" header (with "nosniff" value) prevents IE and Chrome from ignoring the content-type of a response.

This action may prevent untrusted content (e.g. user uploaded content) from being executed on the user browser (after a malicious naming, for example).

## Missing or insecure "X-XSS-Protection" header

TOC

#### Test Type:

Application-level test

#### Threat Classification:

Information Leakage

#### Causes:

Insecure web application programming or configuration

#### Security Risks:

- It is possible to gather sensitive information about the web application such as usernames, passwords, machine name and/or sensitive file locations
- It is possible to persuade a naive user to supply sensitive information such as username, password, credit card number, social security number etc.

#### Affected Products:

#### CWE:

200

#### References:

List of useful HTTP headers IE XSS Filter

#### **Technical Description:**

The "X-XSS-Protection" header with value '1' forces the Cross-Site Scripting filter into Enable mode, even if disabled by the user.

This filter is built into most recent web browsers (IE 8+, Chrome 4+), and is usually enabled by default. Although it is not designed as first and only defense against Cross-Site Scripting, it acts as an additional layer of protection.

# Application Data

Visited URLs 5

URL
http://10.90.171.82:8080/hpcl_grp1/Event/
http://10.90.171.82:8080/hpcl_grp1/Event/js/jquery-1.11.1.min.js
http://10.90.171.82:8080/hpcl_grp1/Event/js/snow.js
http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp
http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp

## Parameters 3

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Name	Value	URL	Туре
t1	1234	http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp	Text
t2	1234	http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp	Password
commit	Login	http://10.90.171.82:8080/hpcl_grp1/Event/login.jsp	Submit

## Failed Requests 2

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URL	Reason
http://10.90.171.82:8080/hpcl_grp1/Event/winner.jsp	Response Status '404' - Not Found
http://10.90.171.82:8080/a	Response Status '404' - Not Found

## Filtered URLs 10

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URL	Reason

https://maxcdn.bootstrapcdn.com/font-awesome/4.4.0/css/font-awesome.min.css	Untested Web Server
http://10.90.171.82:8080/hpcl_grp1/Event/css/style1.css	File Extension
http://10.90.171.82:8080/hpcl_grp1/Event/css/styles.css	File Extension
http://10.90.171.82:8080/hpcl_grp1/Event/images/logo3.png	File Extension
http://10.90.171.82:8080/hpcl_grp1/Event/images/star2.png	File Extension
http://10.90.171.82:8080/hpcl_grp1/Event/images/star4.gif	File Extension
http://10.90.171.82:8080/hpcl_grp1/Event/images/bgGif1.gif	File Extension
http://10.90.171.82:8080/hpcl_grp1/Event/	Similar DOM
http://10.90.171.82:8080/hpcl_grp1/Event/index.jsp	Similar DOM
http://10.90.171.82:8080/hpcl_grp1/Event/	Similar Body

## **Comments 3**

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URL	Comment
http://10.90.171.82:808 0/hpcl_grp1/Event/	<pre><div class="masthead">   <div style="width:10%"><img src="logo.png" style="height:auto;width:100px"/>   </div>   <div><h1 class="site-title" style="margin-left:30%">Intimation under CDA rule</h1>   </div> </div></pre>
http://10.90.171.82:808 0/hpcl_grp1/Event/	<pre><div style="background: url('images/ribbon.png') no-repeat scroll 0px 0px transparent;&lt;br&gt;height: 170px; padding-top: 28px; font-size: 25px; font-weight: bold; font-family: arial;&lt;br&gt;color: white;"></div></pre>
	<span style="margin-left: 10px; margin-right:</td
	250px;">Click
	<span>Here</span>
	>
http://10.90.171.82:808 0/hpcl_grp1/Event/login .jsp	HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"

## JavaScripts 6

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#### **URL / Code**

http://10.90.171.82:8080/hpcl\_grp1/Event/

```
$(function() {//$(document).snow({ SnowImage:
["images/star1.png","images/star2.png","images/star3.jpg","images/star4.gif"], Quantity: 20 });});
```

#### http://10.90.171.82:8080/hpcl\_grp1/Event/

```
return FrontPage_Form1_Validator(this)
```

#### http://10.90.171.82:8080/hpcl\_grp1/Event/js/snow.js

```
* jQuery snow effects.
* This is a heavily modified, jQuery-adapted, browser-agnostic version of
* "Snow Effect Script" by Altan d.o.o. (http://www.altan.hr/snow/index.html).
* Dustin Oprea (2011)
function __ShowSnow(settings)
   var snowsrc = settings.SnowImage;
   var no = settings.Quantity;
   var dx, xp, yp; // coordinate and position variables
   var am, stx, sty; // amplitude and step variables
   var i;
   var doc width = $(window).width() - 10;
   var doc height = $(window).height();
   dx = [];
   xp = [];
   yp = [];
    am = [];
    stx = [];
    sty = [];
   flakes = [];
for (i = 0; i < no; ++i)
                          // set coordinate variables
       dx[i] = 0;
        xp[i] = Math.random()*(doc_width-50); // set position variables
        yp[i] = Math.random()*doc_height;
        am[i] = Math.random()*20;
                                        // set amplitude variables
        stx[i] = 0.02 + Math.random()/10; // set step variables
        sty[i] = 0.7 + Math.random();  // set step variables
       var flake = $("<div />");
       var id = ("dot" + i);
        flake.attr("id", id);
        flake.css({
        position: "absolute",
          zIndex: i,
         top: "15px",
         left: "15px"
         });
       flake.append("<img src='" + snowsrc[i%4] + "'>");
       flake.appendTo("body");
        flakes[i] = $("#" + id);
   var animateSnow;
    animateSnow = function()
        for (i = 0; i < no; ++ i)
         // iterate for every dot
          yp[i] += sty[i];
          if (yp[i] > doc_height - 50)
          xp[i] = Math.random() * (doc width - am[i] - 30);
          yp[i] = 0;
          stx[i] = 0.02 + Math.random() / 10;
          sty[i] = 0.7 + Math.random();
```

```
dx[i] += stx[i];
          flakes[i].css("top", yp[i] + "px");
flakes[i].css("left", (xp[i] + am[i] * Math.sin(dx[i])) + "px");
        snowtimer = setTimeout(animateSnow, 10);
 function hidesnow()
   {
         if (window.snowtimer)
         clearTimeout(snowtimer)
        for (i = 0; i < no; i++)
          flakes[i].hide();
    animateSnow();
if (settings.HideSnowTime > 0)
        setTimeout(hidesnow, settings.HideSnowTime * 1000)
(function($) {
   $.fn.snow = function(options) {
    var settings = $.extend({
          SnowImage: undefined,
          Quantity:
                           7,
          HideSnowTime:
        }, options);
     ShowSnow(settings);
    return this;
}) (iOuerv);
```

#### http://10.90.171.82:8080/hpcl\_grp1/Event/js/jquery-1.11.1.min.js

```
/*! jQuery v1.11.1 | (c) 2005, 2014 jQuery Foundation, Inc. | jquery.org/license ^{\star}/
  !function(a,b){"object"==typeof module&&"object"==typeof module.exports?module.exports=a.document?
b(a,!0):function(a){if(!a.document)throw new Error("jQuery requires a window with a document"); return
b(a)}:b(a)}("undefined"!=typeof window?window:this,function(a,b){var c=
  [],d=c.slice,e=c.concat,f=c.push,g=c.indexOf,h={},i=h.toString,j=h.hasOwnProperty,k=
  \label{eq:continuity} \{\}, 1="1.11.1", m=function(a,b) \\ \{return new m.fn.init(a,b) \}, n=/^[\s\ufEff\xA0] + [\s\ufEff\xA0] + \\ \[x] \{\}, n="1.11.1", m=function(a,b) \\ \[x] \{\}
  /,p=/-([\da-z])/gi,q=function(a,b){return b.toUpperCase()};m.fn=m.prototype=
  {jquery:1,constructor:m,selector:"",length:0,toArray:function(){return d.call(this)},get:function(a){return
null!=a?0>a?this[a+this.length]:this[a]:d.call(this)},pushStack:function(a){var
b=m.merge(this.constructor(),a);return b.prevObject=this,b.context=this.context,b},each:function(a,b) {return
 \texttt{m.each(this,a,b)}, \texttt{map:function(a)} \\ \{ \texttt{return this.pushStack(m.map(this,function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),function(b,c),func
 \verb|a.call(b,c,b)|)) \}, \verb|slice:function() \{ return this.pushStack(d.apply(this,arguments)) \}, \verb|first:function() \{ return this.pushStack(d.apply(this,arguments)) \}, \verb|first:function() | \{ return this.pushStack(d.apply(th
  this.eq(0) \}, last:function() \{return\ this.eq(-1)\}, eq:function(a) \{var\ b=this.length, c=+a+(0>a?b:0); return\ this.eq
 this.pushStack(c>=0&&b>c?[this[c]]:[])},end:function(){return
 this.prevObject | | this.constructor(null) \}, push:f, sort:c.sort, splice:c.splice\}, m.extend=m.fn.extend=function() \\
   \{ \text{var a,b,c,d,e,f,g=arguments}[0] \mid | \{ \}, \text{h=1,i=arguments.length,j=!1;for("boolean"==typeof g&& for the limit of t
  (\texttt{j} = \texttt{g}, \texttt{g} = \texttt{arguments} \texttt{[h]} \mid | \{\}, \texttt{h} + +), \texttt{"object"} = \texttt{typeof g} \mid | \texttt{m.isFunction} \texttt{(g)} \mid | \texttt{(g} = \{\}), \texttt{h} = \texttt{=} \texttt{i\&\&} \texttt{(g} = \texttt{this}, \texttt{h} = \texttt{
  ); i>h; h++) if (null!=(e=arguments[h])) for(d in e)a=g[d], c=e[d], g!==c&&(j&&c&&(m.isPlainObject(c)||
  (b=m.isArray(c)))?(b?(b=!1,f=a\&\&m.isArray(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:\{\},g[d]=m.extend(j,f,c)):void(b=m.isArray(c)))?(b?(b=!1,f=a\&\&m.isArray(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isArray(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]):f=a\&\&m.isPlainObject(a)?a:[]
 0!==c\&\&(g[d]=c));return g,m.extend({expando:"jQuery"+
  (1+Math.random()).replace(\D/g,""), is Ready: !0, error: function(a) \{throw new Error(a)\}, noop: function(), noop: fun
    {},isFunction:function(a){return"function"===m.type(a)},isArray:Array.isArray||function(a)
  {return"array"===m.type(a)},isWindow:function(a){return null!=a&&a==a.window},isNumeric:function(a)
  \label{lem:lem:mass} $$\{$return!m.isArray(a) \&\&a-parseFloat(a)>=0$\}, isEmptyObject:function(a) \{var b;for(b in a context of the context of 
 a) return!1; return!0}, isPlainObject:function(a) {var
b;if(!a||"object"!==m.type(a)||a.nodeType||m.isWindow(a))return!1;try{if(a.constructor&&!j.call(a,"constructo
 r")&&!j.call(a.constructor.prototype,"isPrototypeOf"))return!1}catch(c){return!1}if(k.ownLast)for(b in
 a) return j.call(a,b); for(b in a); return void 0 == b | | j.call(a,b) \}, type: function(a) {return null == a?
 a+"":"object"==typeof a||"function"==typeof a?h[i.call(a)]||"object":typeof a},globalEval:function(b)
 {b&&m.trim(b)&&(a.execScript||function(b){a.eval.call(a,b)})(b)}, camelCase:function(a){return
 a.replace(o,"ms-").replace(p,q)},nodeName:function(a,b){return
a.nodeName&&a.nodeName.toLowerCase() ===b.toLowerCase()}, each:function(a,b,c){var
```

```
a) if (d=b.apply(a[e],c),d===!1) break}else if (g) {for(;f>e;e++)if(d=b.call(a[e],e,a[e]),d===!1) break}else for(e
   in a) if(d=b.call(a[e],e,a[e]),d===!1)break;return a},trim:function(a){return null==a?"":
   (a+"").replace(n,"")}, make Array: function(a,b) \\ \{var c=b||[]; return null!=a&&(r(Object(a))?) \\ \{var c=b||[]; return null
m.merge(c, "string"==typeof a?[a]:a):f.call(c,a)),c},inArray:function(a,b,c){var d;if(b){if(g)return}
\verb|g.call(b,a,c)|; for(d=b.length,c=c?0>c?Math.max(0,d+c):c:0;d>c;c++) if(c in b&&b[c]===a) return c}| return c | return
1\}, \texttt{merge:function}(\texttt{a}, \texttt{b}) \\ \{\texttt{var c=+b.length}, \texttt{d=0}, \texttt{e=a.length}; \texttt{while}(\texttt{c} > \texttt{d}) \\ \texttt{a}[\texttt{e++}] = \texttt{b}[\texttt{d++}]; \texttt{if}(\texttt{c}! = \texttt{e}) \\ \texttt{while}(\texttt{void}) \\ \texttt{a}[\texttt{d++}] = \texttt{b}[\texttt{d++}]; \texttt{a}[\texttt{d++}] \\ \texttt{a}[\texttt{d++}] = \texttt{b}[\texttt{d++}]; \texttt{a}[\texttt{d++}] \\ \texttt{a}[\texttt{d++}] = \texttt{b}[\texttt{d++}] \\ \texttt{a}[\texttt{d++}
0! = b[d]) \, a[e++] = b[d++]; \\ return \ a.length = e, a \}, \\ grep: \\ function(a,b,c) \\ \{for(var\ d,e=b,c)\}, \\ for(var\ d,e=b,c) \\ \{for(var\ d,e=b,c)\}, 
   [], f = 0, g = a.length, h = !c; g > f; f + +) d = !b(a[f], f), d! = +h&&e.push(a[f]); return e \}, map: function(a, b, c) {var} = (a, b,
 \texttt{d}, \texttt{f=0}, \texttt{g=a.length}, \texttt{h=r(a)}, \texttt{i=[];if(h)} \texttt{for(;g>f;f++)} \texttt{d=b(a[f],f,c)}, \texttt{null!=d\&\&i.push(d);else} \texttt{ for(f in for(f),f-f)} \texttt{for(f)} \texttt{f
 c,e,f;return"string"==typeof b&&(f=a[b],b=a,a=f),m.isFunction(a)?(c=d.call(arguments,2),e=function(){return
{return+new Date}, support:k}), m.each("Boolean Number String Function Array Date RegExp Object Error".split("
 "), function(a,b){h["[object "+b+"]"]=b.toLowerCase()});function r(a){var
b=a.length,c=m.type(a);return"function"===c||m.isWindow(a)?!1:1===a.nodeType&&b?!0:"array"===c||0===b||"numbe
  \\ \text{r"==typeof b\&\&b>0\&\&b-1 in a} \\ \text{var s=function(a)} \\ \text{\{var b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s,t,u="sizzle"+-new leading to the lead
 \texttt{Date}, \texttt{v=a.document}, \texttt{w=0}, \texttt{x=0}, \texttt{y=gb()}, \texttt{z=gb()}, \texttt{A=gb()}, \texttt{B=function(a,b)} \\ \{\texttt{return a===b\&\& a=gb, b=function(a,b)} \} \\ \texttt{v=a.document}, \texttt{v=a.document}, \texttt{v=b.document}, \texttt{v=b.document},
   (1=!0),0, C="undefined", D=1<<31, E={}.hasOwnProperty, F=
   [],G=F.pop,H=F.push,I=F.push,J=F.slice,K=F.indexOf||function(a){for(var
b=0,c=this.length;c>b;b++)if(this[b]===a)return b;return-
1$, L="checked|selected|async|autofocus|autoplay|controls|defer|disabled|hidden|ismap|loop|multiple|open|readonly|required|scoped", M="[\x20\\t\r\\n\f]", N="(?:\\\.|[\\w-]|[^\\x00-\\xa0])+", O=N.replace("w...
```

#### http://10.90.171.82:8080/hpcl\_grp1/Event/login.jsp

```
alert("User not found.");document.location.href = "index.jsp";
```

#### http://10.90.171.82:8080/hpcl\_grp1/Event/login.jsp

```
alert("Please enter Proper Credentials.");document.location.href = "index.jsp";
```

Cookies 1

Name	First Set	Domain	Secure
Value	Requested URL		Expires
JSESSIONID	http://10.90.171.82:8080/hpcl_grp1/Event/	10.90.171.82	False
05781F2D4F1DC2E50B86E76AAA45B9D6	http://10.90.171.82:8080/hpcl_grp1/Event/		