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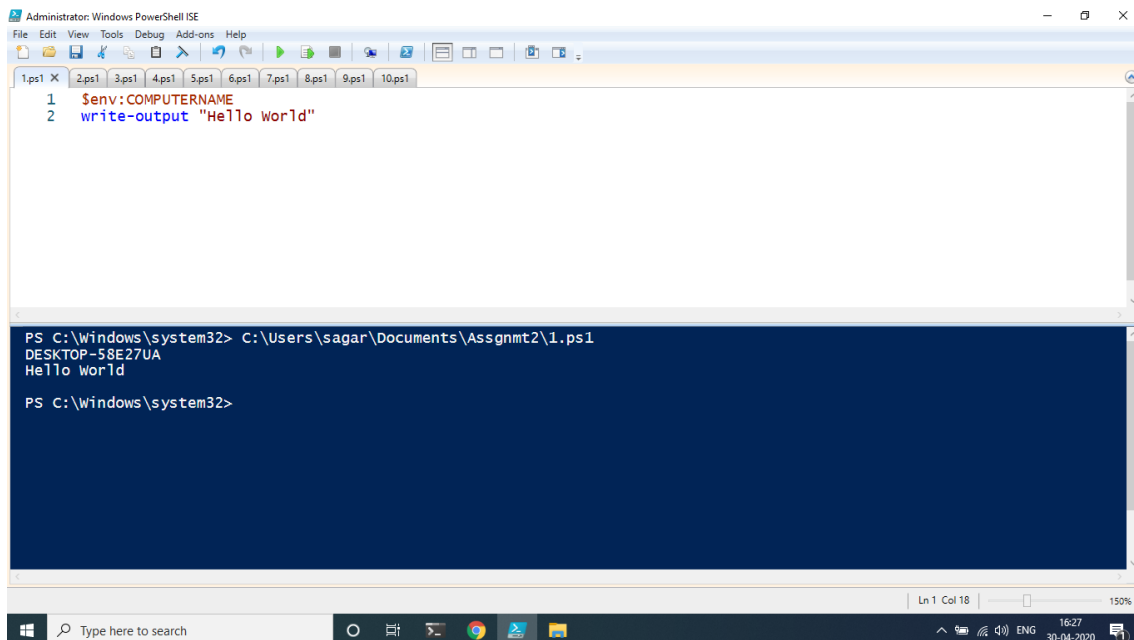
**Course : M. Sc. Cyber Security**

**Question 1 : Write a Powershell Script to print "HelloWorld"**

**Program :**

```
write-output "Hello World"
```

**Screenshot :**

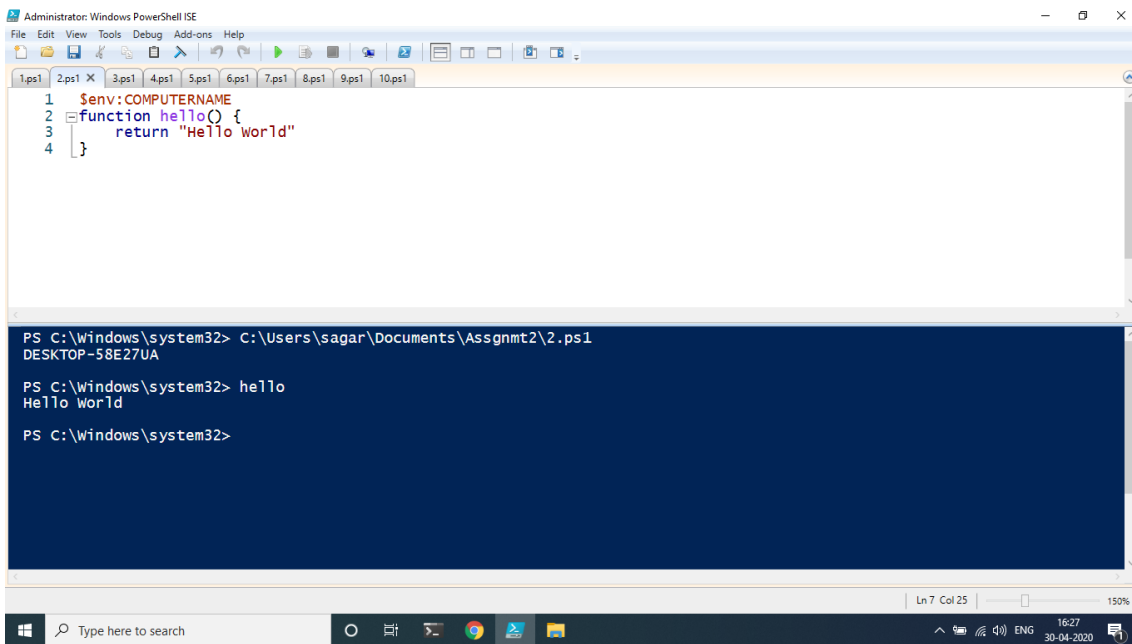


**Question 2 : Write a Powershell Script to print "HelloWorld" using a simple function.**

**Program :**

```
function hello() {  
    return "Hello World"  
}
```

**Screenshot :**



**Question 3 : Write a Powershell Script to take a string input from the user and display the reverse of that string in output.**

**Program :**

```
function RevString([string]$Str) {  
    $temp = $Str.ToCharArray()  
    [array]::Reverse($temp)  
    $rev = -join($temp)  
    return $rev  
}
```

**Screenshot :**

The screenshot shows the Windows PowerShell ISE interface. The script editor contains the following code:

```
1 $env:COMPUTERNAME
2 function RevString([string]$str) {
3     $temp = $str.ToCharArray()
4     [array]::Reverse($temp)
5     $rev = -join($temp)
6     return $rev
7 }
```

The console window shows the execution of the script:

```
PS C:\windows\system32> C:\Users\sagar\Documents\Assgnmt2\3.ps1
DESKTOP-58E27UA

PS C:\windows\system32> RevString SAGAR
RAGAS

PS C:\windows\system32> |
```

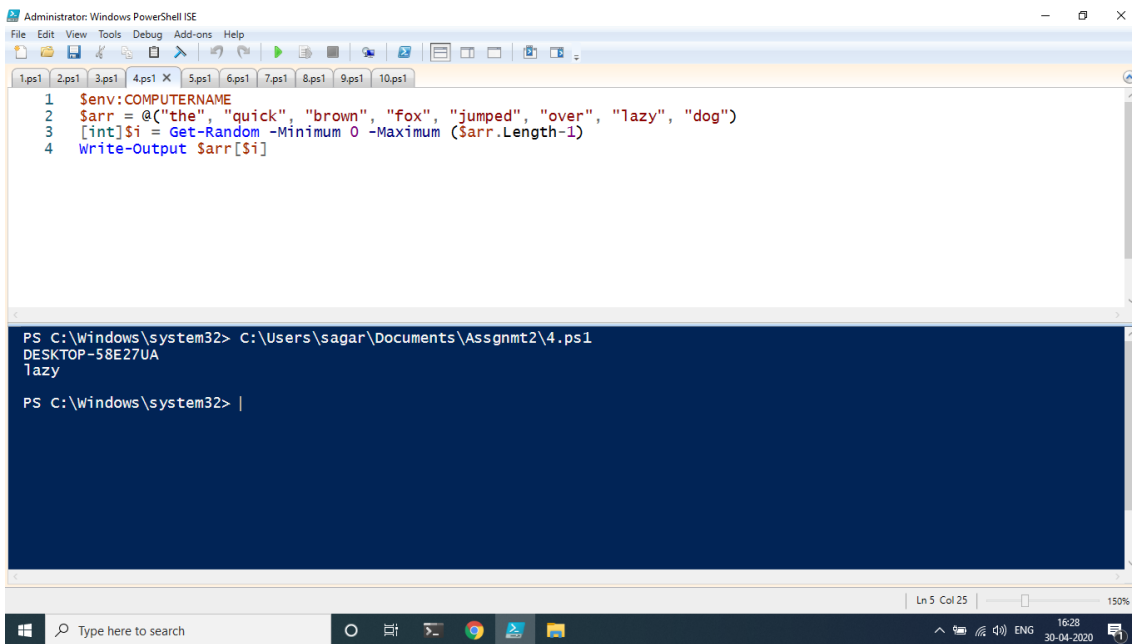
The status bar at the bottom indicates the current line and column: Ln 7 Col 25, and the date/time: 16:27 30-04-2020.

**Question 4 : Write a Powershell Script to pick a random name from the list. (Hint : Use an Array of names)**

**Program :**

```
$arr = @("the", "quick", "brown", "fox", "jumped", "over", "lazy", "dog")
[int]$i = Get-Random -Minimum 0 -Maximum ($arr.Length-1)
Write-Output $arr[$i]
```

**Screenshot :**



```
1 $env:COMPUTERNAME
2 $arr = @("the", "quick", "brown", "fox", "jumped", "over", "lazy", "dog")
3 [int]$i = Get-Random -Minimum 0 -Maximum ($arr.Length-1)
4 Write-Output $arr[$i]

PS C:\windows\system32> C:\Users\sagar\Documents\Assgnmt2\4.ps1
DESKTOP-58E27UA
lazy

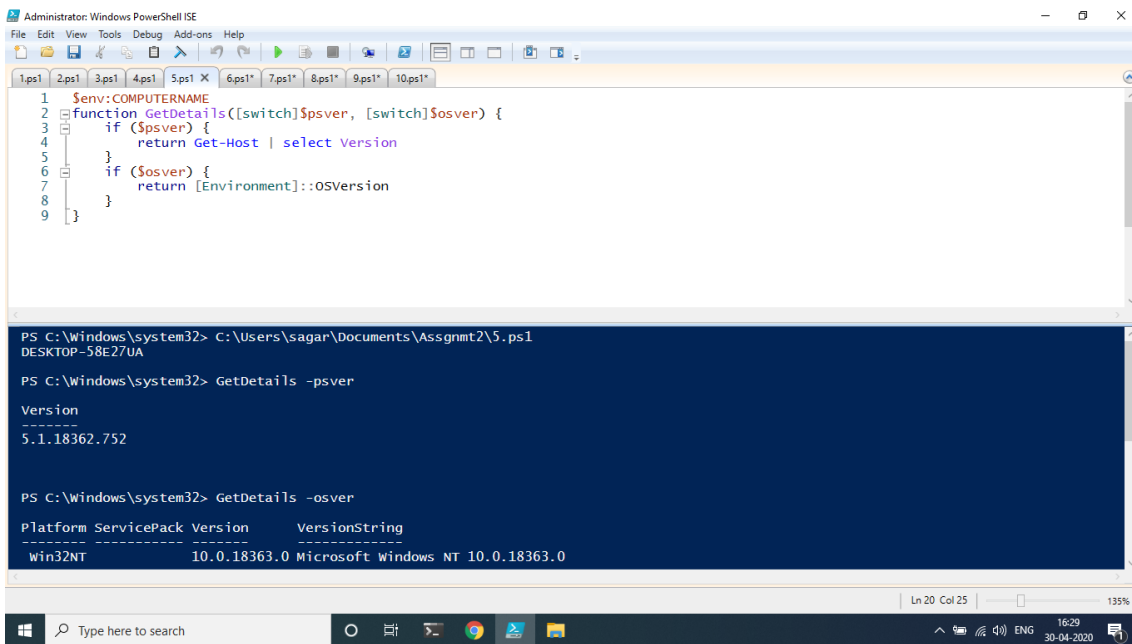
PS C:\windows\system32> |
```

**Question 5 : Write a Powershell Script to get the version of Powershell, details of host operating system, details of host computer by using function and passing parameters as a handle. (Ex: Functionname computerinfo -> It should show me the computer information) (Hint : Conditional Operators)**

**Program :**

```
function GetDetails([switch]$psver, [switch]$osver) {
    if ($psver) {
        return Get-Host | select Version
    }
    if ($osver) {
        return [Environment]::OSVersion
    }
}
```

**Screenshot :**



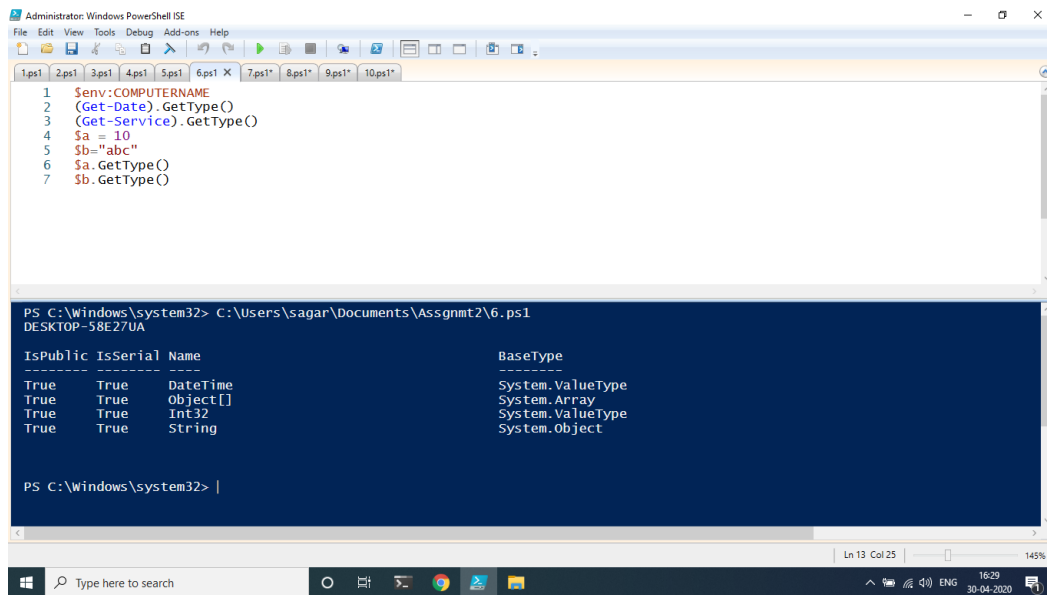
## Question 6 : Determine the types of following CMDLETS.

1. Get-Date
  2. Get-Service
  3. \$a = 10
  4. \$b="abc"
- (Hint : Use GetType())

**Program :**

```
(Get-Date).GetType()  
(Get-Service).GetType()  
$a = 10  
$b="abc"  
$a.GetType()  
$b.GetType()
```

**Screenshot :**

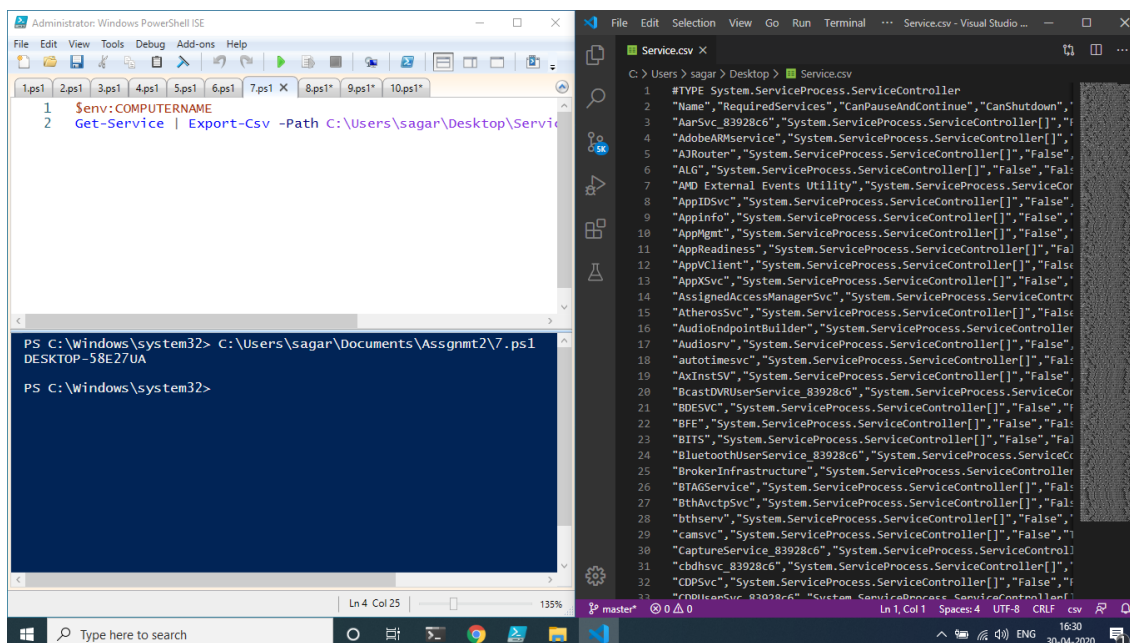


**Question 7 : Write a Powershell Script to export the list of services as a CSV file. (Hint : Export Option)**

**Program :**

```
Get-Service | Export-Csv -Path C:\Users\sagar\Desktop\Service.csv
```

**Screenshot :**

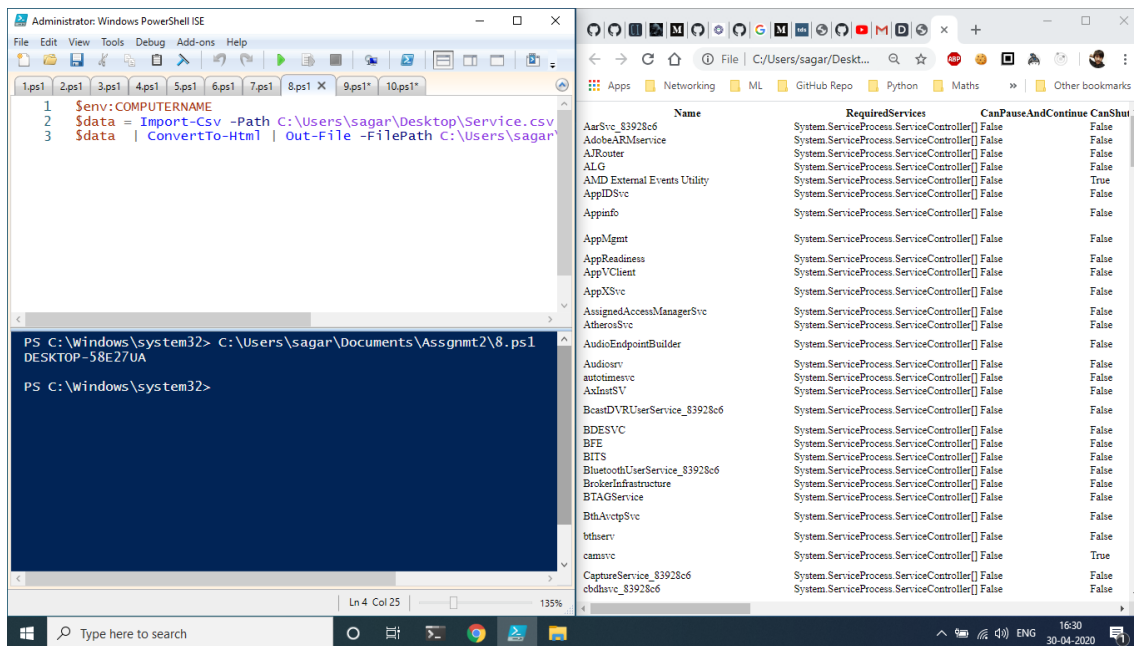


**Question 8 : Import the file Exported in the above Program and convert that file to HTML file. Open that exported file in the browser to reverify.**

**Program :**

```
$data = Import-Csv -Path C:\Users\sagar\Desktop\Service.csv
$data | ConvertTo-Html | Out-File -FilePath C:\Users\sagar\Desktop\Service.html
```

**Screenshot :**

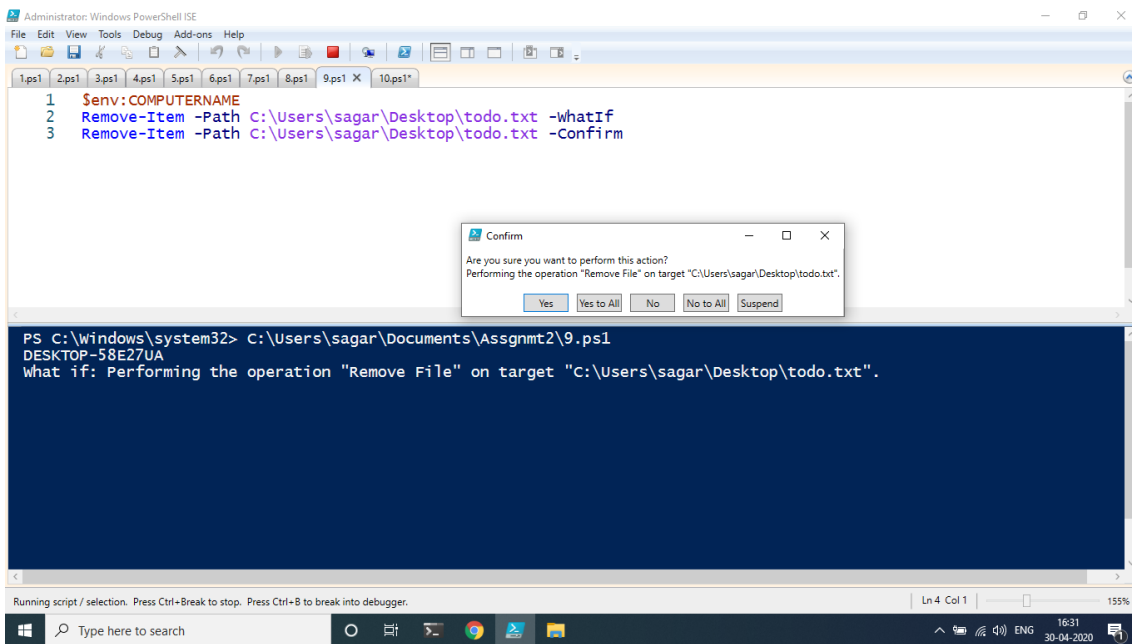


**Question 9 : Write a Powershell Script to show the use of -whatif and -confirm command.**

**Program :**

```
Remove-Item -Path C:\Users\sagar\Desktop\todo.txt -WhatIf
Remove-Item -Path C:\Users\sagar\Desktop\todo.txt -Confirm
```

**Screenshot :**



**Question 10 : Write a Powershell Script to take an array of names and print all those names starting with R. (Hint : Wildcard or Regex and Conditions)**

**Program :**

```
$arr = @()
$counter = 1;
do {
    $elmt = Read-Host -Prompt "Array name - $counter"
    $arr += $elmt
    $counter += 1
}while($counter -le 6)
Write-Host "Names begin with 'r' "
foreach($elmt in $arr) {
    if ($elmt -like "r*") {
        Write-Host " - $elmt";
    }
}
```

**Screenshot :**



Administrator: Windows PowerShell ISE

```
1 $env:COMPUTERNAME
2 $arr = @()
3 $counter = 1;
4 do {
5     $elmt = Read-Host -Prompt "Array name - $counter"
6     $arr += $elmt
7     $counter += 1
8 }while($counter -le 6)
9 Write-Host "Names begin with 'r' "
10 foreach($elmt in $arr) {
11     if ($elmt -like "r*") {
12         Write-Host " - $elmt";
13     }
14 }
```

PS C:\Windows\system32> C:\Users\sagar\Documents\Assgnmt2\10.ps1  
DESKTOP-58E27UA  
Array name - 1: sagar  
Array name - 2: ladia  
Array name - 3: rahul  
Array name - 4: mainani  
Array name - 5: ramya  
Array name - 6: shah  
Names begin with 'r'  
- rahul  
- ramya  
PS C:\Windows\system32>

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