Anna Dubé

00091750

adube@my.athens.edu

Assignment 03

These are some simple programs that I wrote in Bash and PowerShell.

1. Checking file permissions
   Script:

```bash
#!/bin/bash

if [ $# -eq 0 ]
then
        echo "Script fileName"
        exit 1
fi

if [ -r $1 ]
then
        echo "File has read permission"
else
        echo "File does not have read permission"
        exit 1
fi

if [ -w $1 ]
then
        echo "File has write permission"
else
        echo "File does not have write permission"
fi

if [ -x $1 ]
then
        echo "File has execute permission"
else
        echo "File does not have execute permission"
fi

largesize=1000000
```

```bash
#filesize=$(ls -lh $1 | awk '{print $5}')
filesize=$(stat -c%s "$1")
if (( filesize > largesize ));
then
        echo "This is a large file"
fi
```

Output:

```
anna@anna-VirtualBox:~$ ./DubeAssign03_1.sh phone.txt
File has read permission
File has write permission
File does not have execute permission
anna@anna-VirtualBox:~$
```

2. Getting the decimal and hex value for every character in a string

   Script:

```powershell
param ([string]$arg)
if($arg -eq ""){
    "script parameter; there needs to be a string as the parameter"
}
else{
    foreach($char in [char[]]$arg)
    {
        'Character {0,-3} Decimal {1,-5} Hex  {1,-4:X}' -f $char, [int]$char
    }
}
```

```
PS C:\Dube\classes\summer2022> .\DubeAssign03_2.ps1 Anna
Character A    Decimal 65     Hex  41
Character n    Decimal 110    Hex  6E
Character n    Decimal 110    Hex  6E
Character a    Decimal 97     Hex  61

PS C:\Dube\classes\summer2022> |
```

3. Script:

```bash
#!/bin/bash

if [ $# -eq 0 ]
then
        echo "script parameter(string)"
        exit 1
fi

for ((i=1;i<=${#1};i++)); do
        printf "Character ${1:$i-1:1} Decimal "
        printf "%d\n" "'${1:$i-1:1}"
done
```

Output:

```
anna@anna-VirtualBox:~$ ./DubeAssign03_3.sh Anna
Character A Decimal 65
Character n Decimal 110
Character n Decimal 110
Character a Decimal 97
anna@anna-VirtualBox:~$
```

4. Getting the week number for a date entered

PowerShell Script:

```powershell
param ([string]$argDate)

if($argDate -eq ""){
    'Week number: '
    function Get-WeekNumber([datetime]$DateTime = (Get-Date)) {
        $cultureInfo = [System.Globalization.CultureInfo]::CurrentCulture

$cultureInfo.Calendar.GetWeekOfYear($DateTime,$cultureInfo.DateTimeFormat.Calen
darWeekRule,$cultureInfo.DateTimeFormat.FirstDayOfWeek)
    }
    Get-WeekNumber  # -> 7, for instance
}
else{

    [ref]$parsedDate = Get-Date

    if ([DateTime]::TryParseExact(
            $argDate,
            "MM/dd/yyyy",
            [System.Globalization.CultureInfo]::InvariantCulture,
            [System.Globalization.DateTimeStyles]::None,
            $parseddate)) {

        'Week number: '
        function Get-WeekNumber([datetime]$DateTime = ($argDate)) {
            $cultureInfo = [System.Globalization.CultureInfo]::CurrentCulture

$cultureInfo.Calendar.GetWeekOfYear($DateTime,$cultureInfo.DateTimeFormat.Calen
darWeekRule,$cultureInfo.DateTimeFormat.FirstDayOfWeek)
        }
        Get-WeekNumber  # -> 7, for instance
    } else {
        "Invalid date. The date format is MM/dd/yyyy"
    }
}
```

PowerShell Script output:

```
PS C:\Dube\classes\summer2022> ./DubeAssign03_4.ps1 03/01/2022
Week number:
10

PS C:\Dube\classes\summer2022> ./DubeAssign03_4.ps1 03/01/2022 | Out-File -FilePath .\tempText.txt

PS C:\Dube\classes\summer2022> |
```

Bash Script:

```bash
#!/bin/bash
```

```bash
weekNum=0;

if [ -z "$1" ];

then

        weekNum=`date +%U`

else

        testD=$(date +%d%m%Y -d $1)

        if [ $1 == $testD ];

        then

                enteredDate=$(date -d "$1" +%U)

                weekNum=$enteredDate

        else

                echo "invalid date. format: mm/dd/yyyy"

                exit 1

        fi

fi


echo "The week number is: " $weekNum
```

Bash Script Output:

```
anna@anna-VirtualBox:~$ ./DubeAssign03_4.2.sh 01/04/2022
The week number is:  01
anna@anna-VirtualBox:~$ ./DubeAssign03_4.2.sh 01/04/2022 >> tempOut.txt
anna@anna-VirtualBox:~$
```

Sources:

https://community.idera.com/database-tools/powershell/powertips/b/tips/posts/finding-ascii-codes#:~:text=Here%20is%20an%20easy%20way%20to%20find%20the,command%20in%20%EE%80%80PowerShell%EE%80%81%3A%20This%20opens%20the%20character%20

https://stackoverflow.com/questions/60194973/week-number-with-get-date

https://linuxhint.com/date-command-bash/#:~:text=To%20get%20the%20week%20number%2C%20type%20the%20following,then%20try%20the%20following%20program%20using%20any%20editor%3A