

Damir Nabiullin - Lab 6

```
#!/bin/bash

declare -A MainMenu=([3]="System information"
                    [2]="OS components"
                    [1]="exit")
declare -A SytemInfoSubmenu=([4]="Print kernel"
                             [3]="Print architecture"
                             [2]="View logged in users"
                             [1]="exit")
declare -A OSComponentsSubmenu=([4]="Verify EFI"
                                [3]="List block devices"
                                [2]="First boot device"
                                [1]="exit")

IsExit=false

while true;
do
    select TYPE in "${MainMenu[@]}";
    do
        echo
        case $TYPE in
            "System information")
                select ACTION in "${SytemInfoSubmenu[@]}";
                do
                    echo
                    case $ACTION in
                        "Print kernel")
                            echo "$(uname -sr)"
                            break
                        ;;
                        "Print architecture")
                            echo "$(uname -m)"
                            break
                        ;;
                        "View logged in users")
                            echo "USER | LOGIN@ | WHAT"
                            echo "$(w -h | awk -F " " 'BEGIN {OFS = " | "} {print $1,$4,$8}')"
                            break
                        ;;
                        "exit")
                            echo "Exiting script ..."
                            break
                        ;;
                    esac
                done
                break
            ;;
            "OS components")
                select ACTION in "${OSComponentsSubmenu[@]}";
                do
                    echo
                    case $ACTION in
                        "Verify EFI")
                            if test -d /sys/firmware/efi ; then
                                echo "EFI enabled";
                            else
                                echo "EFI disabled";
                            fi
                            break
                        ;;
                        "List block devices")
                            IFS=$'\n'
                            for DEVICE in $(lsblk -d -n -l -o NAME,PTTYPE); do
                                if [[ $DEVICE == "gpt" ]]; then
                                    IFS=$' '
                                    OUTPUTS=(($DEVICE))
                                    echo "  ${OUTPUTS[0]}"
                                else
                                    echo "$DEVICE"
                                fi
                            done
                            break
                        ;;
                        "First boot device")
                            NUMBER=$(efibootmgr -v | grep -oP '(?<=BootOrder:\s)(\d+)')
                            REGEXP="(Boot$NUMBER\s)(.*)"
                            echo $(efibootmgr | grep -oP $REGEXP)
                            break
                        ;;
                        "exit")
                            echo "Exiting script ..."
                            break
                        ;;
                    esac
                done
                break
            ;;
        esac
    done

    echo

    if [ $IsExit = true ] ; then
        break
    fi
done
```

```
dale@dale-nitro:~/Documents/SNA/Week 6$ bash assignment.sh
1) System information
2) OS components
3) exit
#? 1

1) Print kernel
2) Print architecture
3) View logged in users
4) exit
#? 1

Linux 5.15.0-48-generic
```

```
1) System information
2) OS components
3) exit
#? 1

1) Print kernel
2) Print architecture
3) View logged in users
4) exit
#? 2

x86_64
```

```
1) System information
2) OS components
3) exit
#? 1

1) Print kernel
2) Print architecture
3) View logged in users
4) exit
#? 3

USER | LOGIN@ | WHAT
dale | 15:48 | /usr/lib/gdm3/gdm-x-session
```

```
1) System information
2) OS components
3) exit
#? 2

1) Verify EFI
2) List block devices
3) First boot device
4) exit
#? 1

EFI enabled
```

```
1) System information
2) OS components
3) exit
#? 2

1) Verify EFI
2) List block devices
3) First boot device
4) exit
#? 2

loop0
loop1
loop2
loop3
loop4
loop5
loop6
loop7
loop8
loop9
loop10
loop11
loop12
loop13
loop14
loop15
loop16
loop17
loop18
loop19
loop20
loop21
loop22
loop23
loop24
loop25
loop26
* sda
* nvme0n1
```

```
1) System information
2) OS components
3) exit
#? 2

1) Verify EFI
2) List block devices
3) First boot device
4) exit
#? 3

ubuntu
```

```
1) System information
2) OS components
3) exit
#? 3

Exiting ...

dale@dale-nitro:~/Documents/SNA/Week 6$
```