

Laporan Sistem operasi/Array/Tugas6

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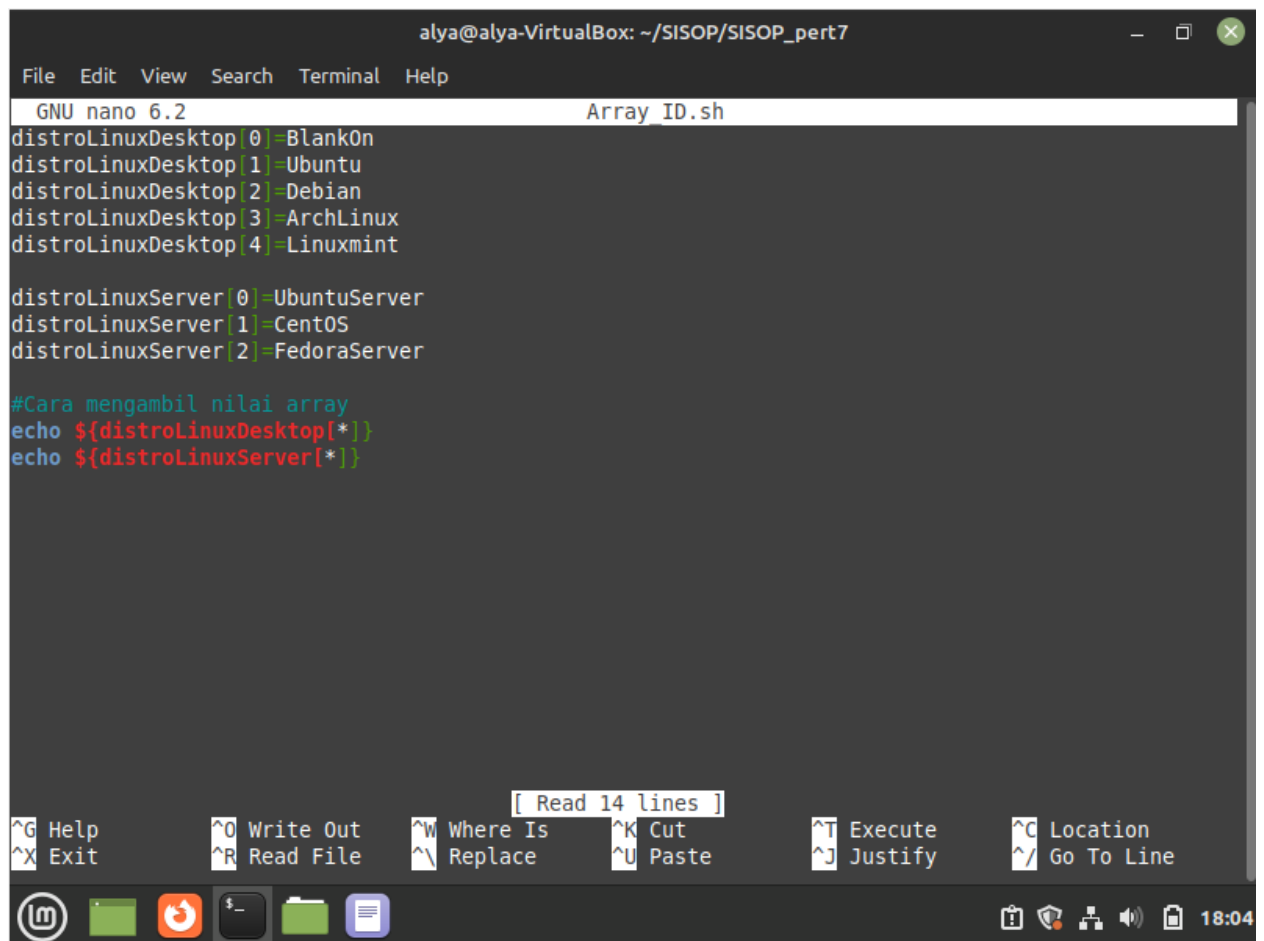
Kelas : B

1. Array [Indirect Declaration]

- Membuat file bash dengan perintah “nano Array_ID.sh”

```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ nano Array_ID.sh
```

- Membuat script bash pada nano



```
alya@alya-VirtualBox: ~/SISOP/SISOP_pert7
File Edit View Search Terminal Help
GNU nano 6.2 Array_ID.sh
distroLinuxDesktop[0]=BlankOn
distroLinuxDesktop[1]=Ubuntu
distroLinuxDesktop[2]=Debian
distroLinuxDesktop[3]=ArchLinux
distroLinuxDesktop[4]=Linuxmint

distroLinuxServer[0]=UbuntuServer
distroLinuxServer[1]=CentOS
distroLinuxServer[2]=FedoraServer

#Cara mengambil nilai array
echo ${distroLinuxDesktop[*]}
echo ${distroLinuxServer[*]}

[ Read 14 lines ]
^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line
[Icons] [System Tray] 18:04
```

- Mengecek output dengan perintah “bash Array_ID.sh ”

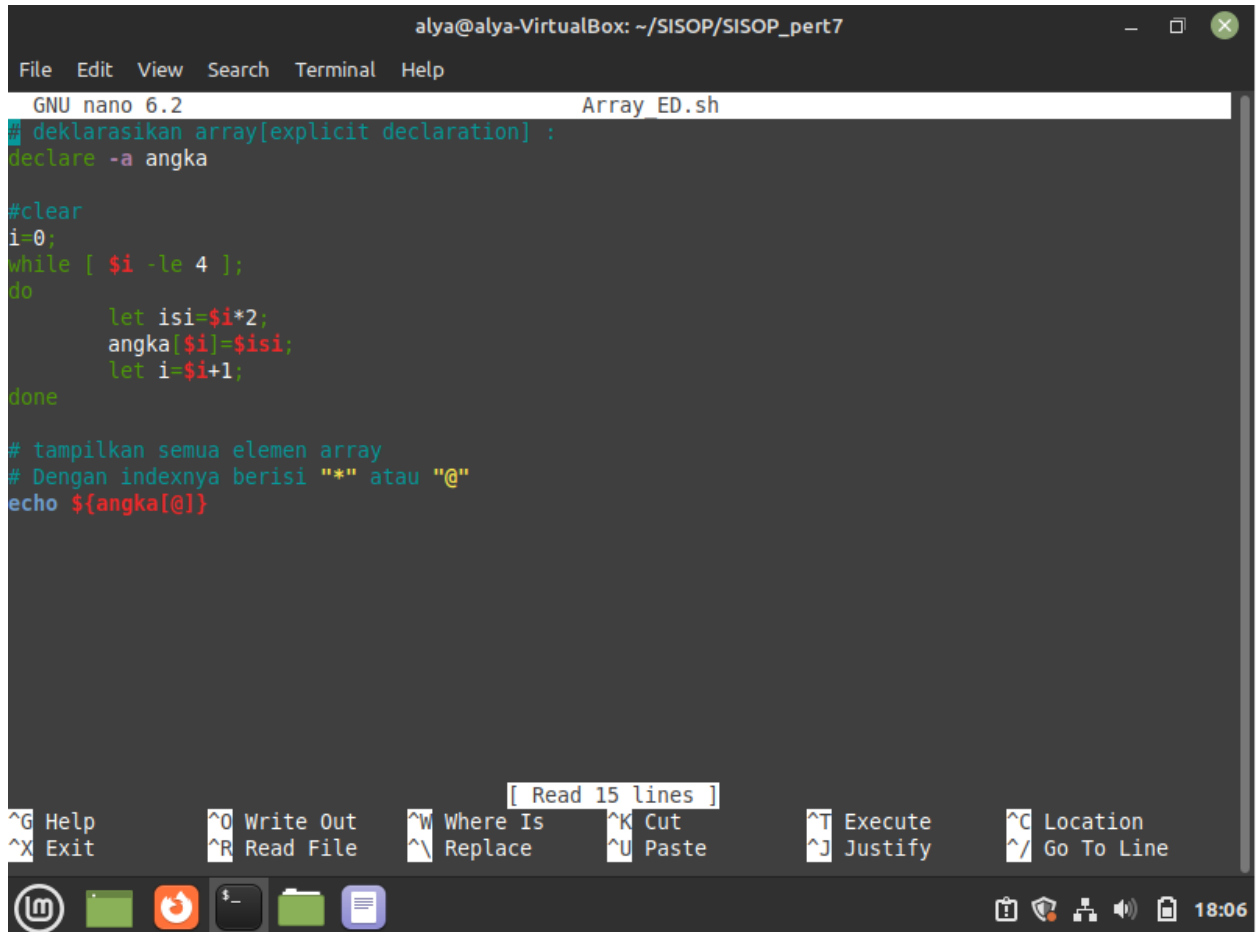
```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ bash Array_ID.sh
BlankOn Ubuntu Debian ArchLinux Linuxmint
UbuntuServer CentOS FedoraServer
```

2. Array [Explicit Declaration]

- Membuat file bash dengan perintah “nano Array_ED.sh”

```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ nano Array_ED.sh
```

- Membuat script bash pada nano



The screenshot shows the nano text editor interface. The title bar indicates the file is 'Array_ED.sh' located in the directory '~/SISOP/SISOP_pert7'. The editor contains the following script:

```
GNU nano 6.2 Array_ED.sh
# deklarasikan array[explicit declaration] :
declare -a angka

#clear
i=0;
while [ $i -le 4 ];
do
    let isi=$i*2;
    angka[$i]=$isi;
    let i=$i+1;
done

# tampilkan semua elemen array
# Dengan indexnya berisi "*" atau "@"
echo ${angka[@]}
```

The bottom status bar of the nano editor shows various keyboard shortcuts: ^G Help, ^X Exit, ^O Write Out, ^R Read File, ^W Where Is, ^\ Replace, ^K Cut, ^U Paste, ^T Execute, ^J Justify, ^C Location, and ^_ Go To Line. A notification '[Read 15 lines]' is also visible.

- Mengecek output dengan perintah “bash Array_ED.sh ”

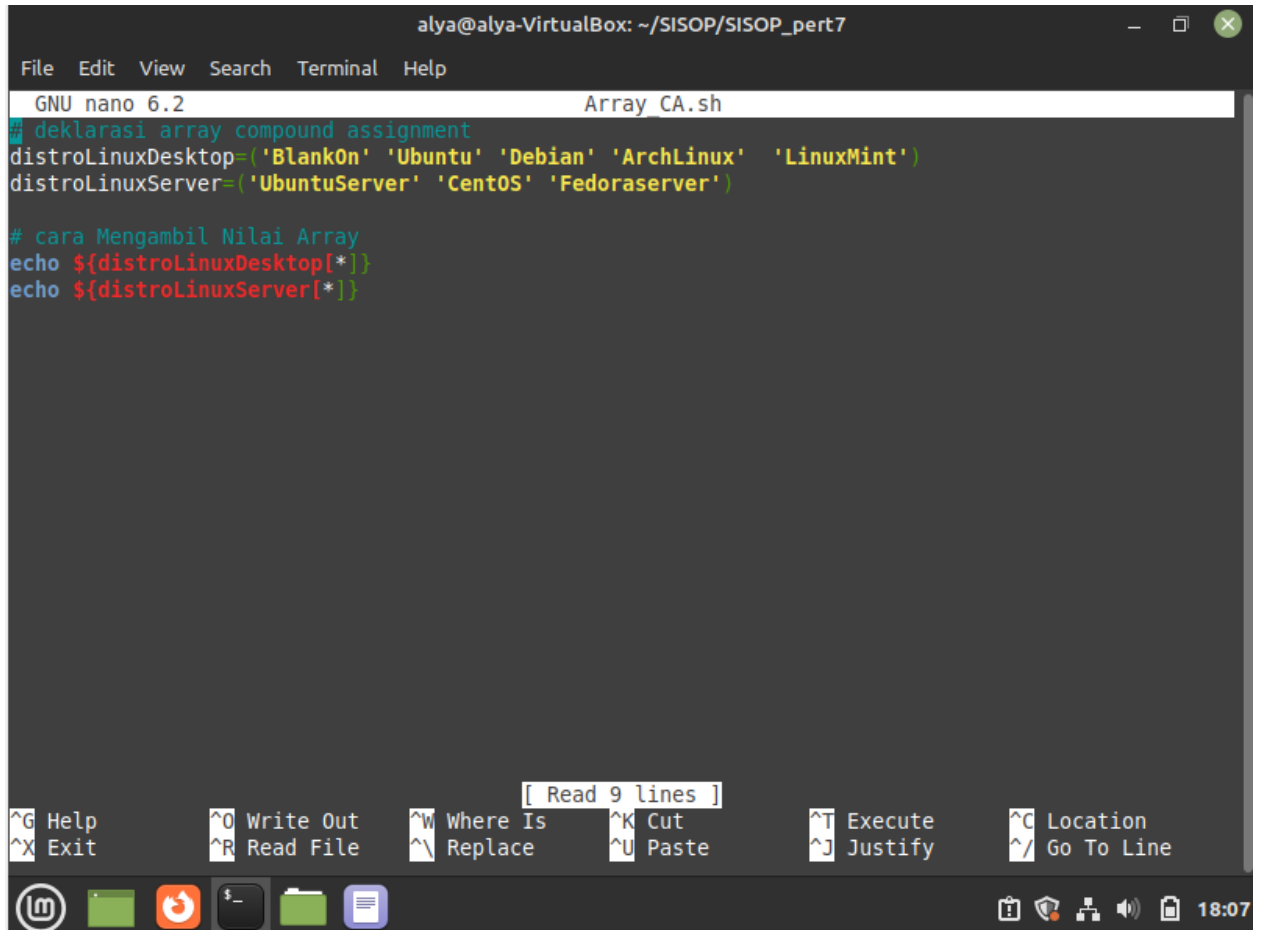
```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ bash Array_ED.sh
0 2 4 6 8
```

3. Array [Compound Assignment]

- Membuat file bash dengan perintah “nano Array_CA.sh”

```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ nano Array_CA.sh
```

- Membuat script bash pada nano



```
alya@alya-VirtualBox: ~/SISOP/SISOP_pert7
File Edit View Search Terminal Help
GNU nano 6.2 Array_CA.sh
# deklarasi array compound assignment
distroLinuxDesktop=('BlankOn' 'Ubuntu' 'Debian' 'ArchLinux' 'LinuxMint')
distroLinuxServer=('UbuntuServer' 'CentOS' 'Fedoraserver')

# cara Mengambil Nilai Array
echo ${distroLinuxDesktop[*]}
echo ${distroLinuxServer[*]}

[ Read 9 lines ]
^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute
^X Exit      ^R Read File  ^\ Replace    ^U Paste      ^J Justify
^C Location
^_ Go To Line

18:07
```

- Mengecek output dengan perintah “bash Array_CA.sh ”

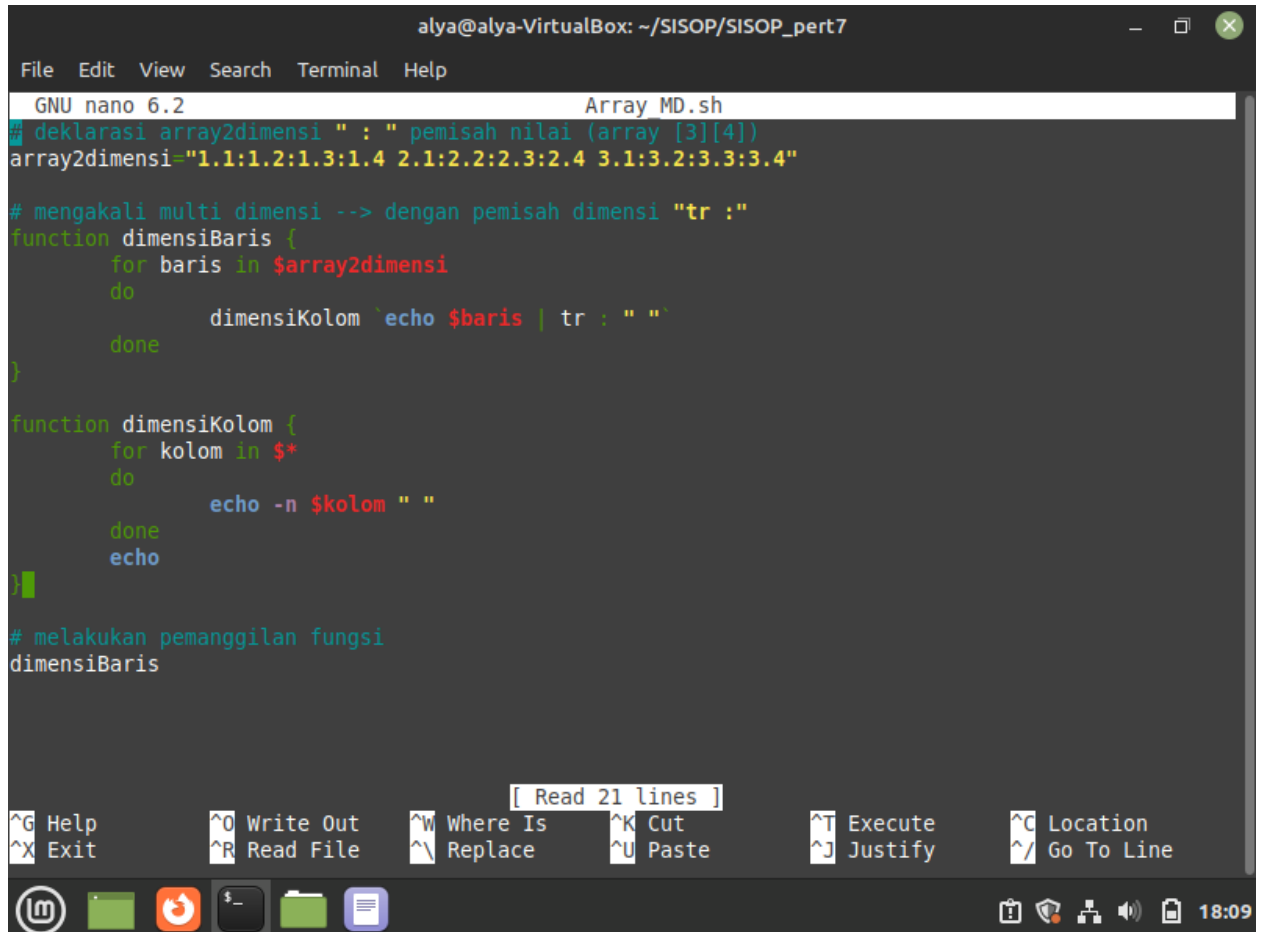
```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ bash Array_CA.sh
BlankOn Ubuntu Debian ArchLinux LinuxMint
UbuntuServer CentOS Fedoraserver
```

4. Array Multi Dimensi

- Membuat file bash dengan perintah “nano array_MD.sh”

```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ nano Array_MD.sh
```

- Membuat script bash pada nano



```
GNU nano 6.2 Array MD.sh
# deklarasi array2dimensi " : " pemisah nilai (array [3][4])
array2dimensi="1.1:1.2:1.3:1.4 2.1:2.2:2.3:2.4 3.1:3.2:3.3:3.4"

# mengakali multi dimensi --> dengan pemisah dimensi "tr :"
function dimensiBaris {
    for baris in $array2dimensi
    do
        dimensiKolom `echo $baris | tr : " "`
    done
}

function dimensiKolom {
    for kolom in $*
    do
        echo -n $kolom " "
    done
    echo
}

# melakukan pemanggilan fungsi
dimensiBaris
```

- Mengecek output dengan perintah “bash Array_MD.sh ”

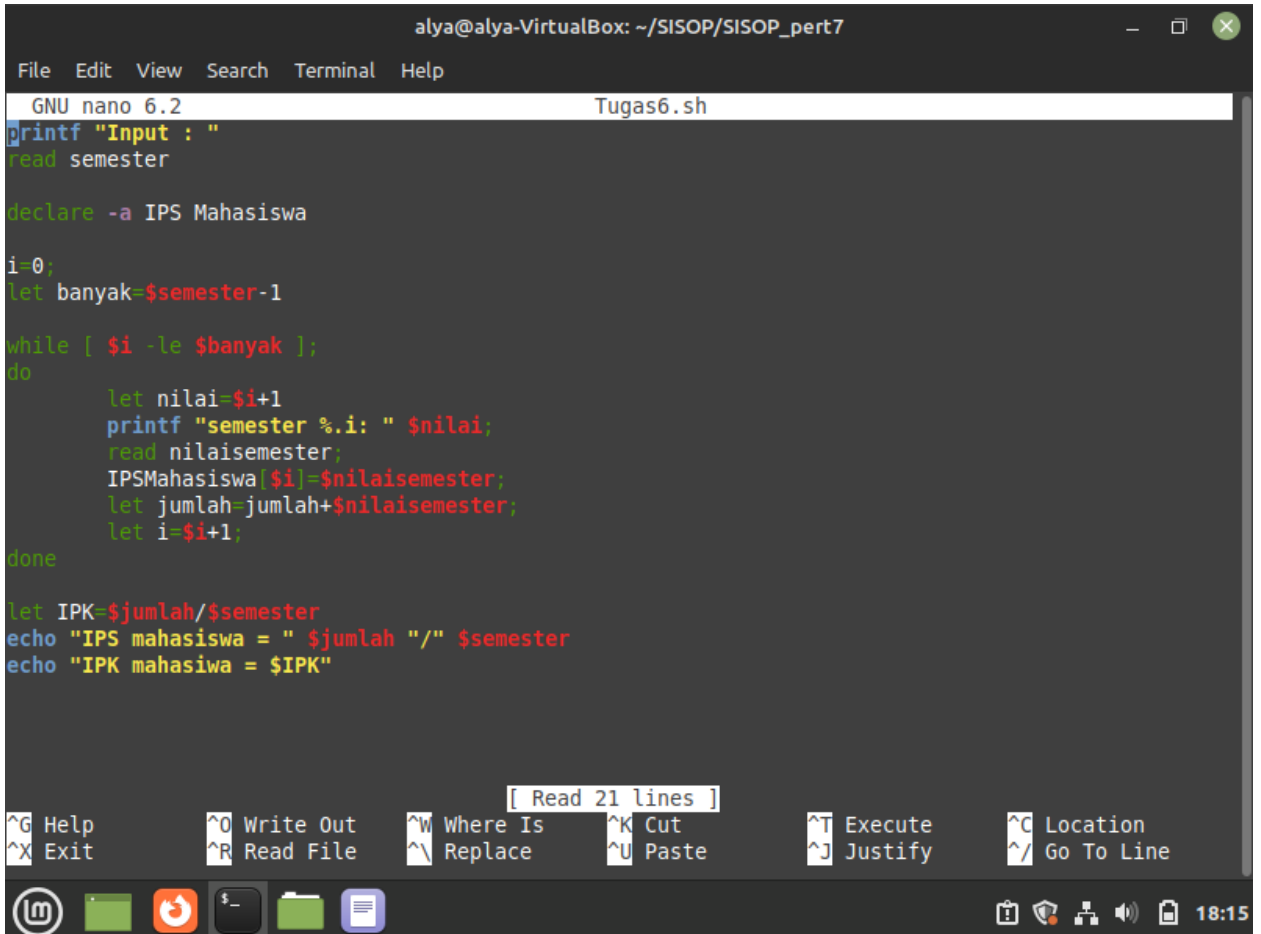
```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ bash Array_MD.sh
1.1 1.2 1.3 1.4
2.1 2.2 2.3 2.4
3.1 3.2 3.3 3.4
```

Latihan Soal

- Membuat file bash dengan perintah “nano Tugas6.sh”

```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ nano Tugas6.sh
```

- Membuat script bash pada nano
Membuat script yang memiliki perintah supaya user menginputkan semester dan menginputkan nilai di setiap semesternya, sehingga memiliki hasil akhir mengetahui jumlah IPK dari user



```
alya@alya-VirtualBox: ~/SISOP/SISOP_pert7
File Edit View Search Terminal Help
GNU nano 6.2 Tugas6.sh
printf "Input : "
read semester

declare -a IPS Mahasiswa

i=0
let banyak=$semester-1

while [ $i -le $banyak ];
do
    let nilai=$i+1
    printf "semester %.i: " $nilai;
    read nilaisemester;
    IPSMahasiswa[$i]=$nilaisemester;
    let jumlah=jumlah+$nilaisemester;
    let i=$i+1;
done

let IPK=$jumlah/$semester
echo "IPS mahasiswa = " $jumlah "/" $semester
echo "IPK mahasiwa = $IPK"

[ Read 21 lines ]
^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location
^X Exit      ^R Read File  ^\ Replace    ^U Paste      ^J Justify    ^_ Go To Line
```

- Mengecek output dengan perintah “bash Tugas6.sh ”

```
alya@alya-VirtualBox:~/SISOP/SISOP_pert7$ bash Tugas6.sh
Input : 3
semester 1: 4
semester 2: 2
semester 3: 3
IPS mahasiswa = 9 / 3
IPK mahasiwa = 3
```