

REPORT ASSIGNMENT
OPERATING SYSTEM A CLASS



“BASH Function”

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- **Function**

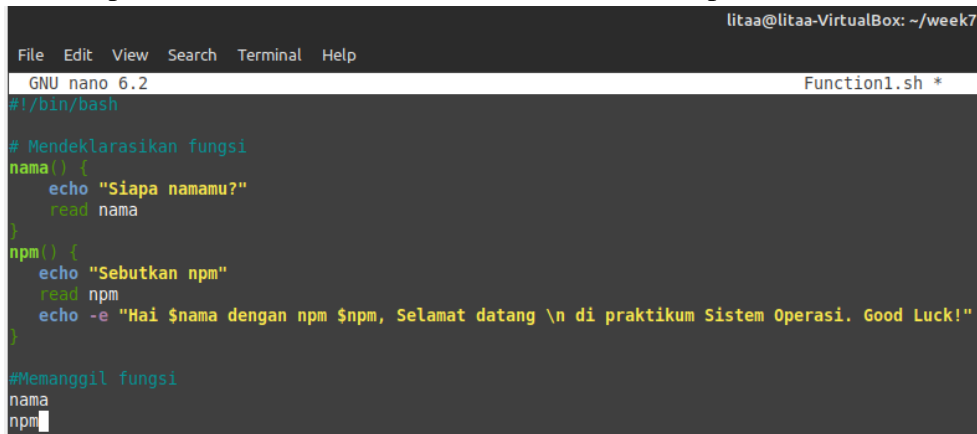
A function is part of a script or program that contains some of several statement that works for specific task. Using script code subroutine will definitely simplify and more structured the program, because once the function has been created and is successfully running, it can be used for whenever we want.

- i. Function 1

Declare the Function Syntax in this structure :

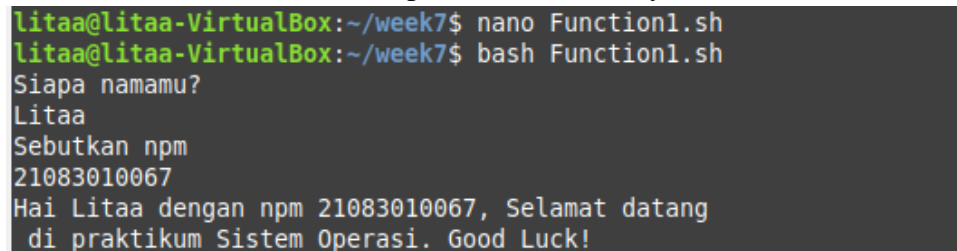
```
functionName () {  
    command1  
    command2  
    ...  
    AnotherCommand  
}
```

For example in our own GNU text editor, write it as the picture below shows :



```
litaa@litaa-VirtualBox: ~/week7  
File Edit View Search Terminal Help  
GNU nano 6.2 Function1.sh *  
#!/bin/bash  
  
# Mendeklarasikan fungsi  
nama() {  
    echo "Siapa namamu?"  
    read nama  
}  
npm() {  
    echo "Sebutkan npm"  
    read npm  
    echo -e "Hai $nama dengan npm $npm, Selamat datang \n di praktikum Sistem Operasi. Good Luck!"  
}  
  
#Memanggil fungsi  
nama  
npm
```

Use bash command to see the output of the written syntax, it'll look like this :



```
litaa@litaa-VirtualBox:~/week7$ nano Function1.sh  
litaa@litaa-VirtualBox:~/week7$ bash Function1.sh  
Siapa namamu?  
Litaa  
Sebutkan npm  
21083010067  
Hai Litaa dengan npm 21083010067, Selamat datang  
di praktikum Sistem Operasi. Good Luck!
```

- ii. Function 2

Declare the Function Syntax in this structure :

```
function functionName {  
    Statement-1 command...  
    Statament-2 command...  
    Statement-3 command...  
    Etc  
}
```

For example in our own GNU text editor, write it as the picture below shows :

```
litaa@litaa-VirtualBox: ~/week7
File Edit View Search Terminal Help
GNU nano 6.2 Function2.sh
#Deklarasi fungsi
function nama {
    echo "Siapa namamu?"
    read nama
}
function npm {
    echo "Sebutkan NPM"
    read npm
    echo -e "Hai $nama dengan NPM $npm, selamat datang \n di praktikum Sistem Operasi. Good Luck!"
}

#Memanggil fungsi
nama
npm
```

Use bash command to see the output of the written syntax, it'll look like this :

```
litaa@litaa-VirtualBox:~/week7$ bash Function2.sh
Siapa namamu?
Litaa
Sebutkan NPM
21083010067
Hai Litaa dengan NPM 21083010067, selamat datang
di praktikum Sistem Operasi. Good Luck!
```

- **Nested Function**

In bash we can also make function script in nested function. For example in our own GNU text editor, write it as the picture below shows :

```
litaa@litaa-VirtualBox: ~/wee
File Edit View Search Terminal Help
GNU nano 6.2 Nested function.sh
#Deklarasi fungsi
nama() {
    echo "Siapa namamu?"
    read nama
    npm
}
npm() {
    echo "Sebutkan NPM"
    read npm
    echo -e "Hai $nama dengan NPM $npm, Selamat datang di praktikum Sistem Operasi. Good Luck!"
}

#Memanggil Fungsi
nama
```

Use bash command to see the output of the written syntax, it'll look like this :

```
litaa@litaa-VirtualBox:~/week7$ nano Nested_function.sh
litaa@litaa-VirtualBox:~/week7$ bash Nested_function.sh
Siapa namamu?
Litaa
Sebutkan NPM
21083010067
Hai Litaa dengan NPM 21083010067, Selamat datang di praktikum Sistem Operasi. Good Luck!
```

- **Bash Function with Parameters (x, y)**

Making bash function script with parameters. For example in our own GNU text editor, write it as the picture below shows :

```
litaa@litaa-VirtualBox: ~/week7
File Edit View Search Terminal Help
GNU nano 6.2 Function_parameter.bash *
#Deklarasi fungsi
identitas() {
    parameter1=$1
    parameter2=$2
    parameter3=$3
    echo "$parameter1"
    echo "$parameter2"
    echo "$parameter3"
}

echo "Masukkan Nama : "
read nama
echo "Masukkan NPM : "
read npm
echo "Hobimu Apa : "
read hobi

printf "\n"
identitas $nama $npm $hobi
```

Use bash command to see the output of the written syntax, it'll look like this :

```
litaa@litaa-VirtualBox:~/week7$ nano Function_parameter.bash
litaa@litaa-VirtualBox:~/week7$ bash Function_parameter.bash
Masukkan Nama :
Litaa
Masukkan NPM :
21083010067
Hobimu Apa :
Berenang

Litaa
21083010067
Berenang
```

- **Practice Task**

Make a bash function program that can calculate area of a square!

Firstly, write the script in GNU nano text editor using nano command.

```
litaa@litaa-VirtualBox: ~/week7
File Edit View Search Terminal Help
GNU nano 6.2 Tugas_7.sh *
#Deklarasikan fungsi
panjang() {
    echo "Masukkan Panjang : "
    read length
}

lebar() {
    echo "Masukkan Lebar : "
    read width
}

luas() {
    panjang
    lebar
    let width=length*$width
    echo "Luas Persegi :
$width"
}

#Memanggil fungsi
luas
```

Then use bash command to see the output of the written syntax, it'll look like this :

```
litaa@litaa-VirtualBox:~/week7$ nano Tugas_7.sh
litaa@litaa-VirtualBox:~/week7$ bash Tugas_7.sh
Masukkan Panjang :
5
Masukkan Lebar :
10
Luas Persegi :
50
```