BASH FUNCTION

*A **Bash function** is essentially a set of commands that can be called numerous times. The purpose of a function is to help you make your bash scripts more readable and to avoid writing the same code repeatedly. Compared to most programming languages, Bash functions are somewhat limited.*

Following are some key points about bash functions:
• A function has to be declared in the shell script before we can use it.
• Arguments can be passed to the functions and accessed inside the function as $1, $2, etc.
• Local variables can be assigned within the function, and the scope of such variables will only be that particular function.
• Built-in commands of Bash shell can be overridden using functions.

❖ Make a directory.
gedit for.sh (here for.sh is your file name with bash file extinction)

#Declaring function using the reserved keyboard function
#Multiple function

➢ **Input**

```
#! /bin/bash

function f1 {
    echo "Hello i am function "
    echo "Bye"
    }
    f1
```

✓ **Output**

```
Hello I am function
Bye
```

#single line

➢ **Input**

```
#! /bin/bash
function f2 { echo "welcome to this world" ; echo "How are you" ; }
f2
```

✓ **Output**

```
Welcome to this world
How are you
```

#without function keyboard

➢ **Input**

```
#! /bin/bash
Hello () {
echo "Hello welcome to NSTI"
}
Hello
```

✓ **Output**

```
Hello welcome to NSTI
```

➢ **Input**

```
#! /bin/bash
Hello () { echo "Hello welcome to NSTI" ; }
Hello
```

✓ **Output**

#Passing a string Argument to a function

➢ **Input**

```
#! /bin/bash

Hello () {
    echo "Hello $1"
    }
    Hello "PGLU"
```

✓ **Output**

```
Hello PGLU
```

➢ **Input**

```
#! /bin/bash

Hello () {
    echo "Hello $1"
    echo "Hello $2"
    }
    Hello "PGLU" "GMR"
```

✓ **Output**

```
Hello PGLU
Hello GMR
```

➢ **Input**

```
Hello () {
    echo "Hello $1"
    echo "$2"
    }
    Hello "PGLU" "GMR"
```

✓ **Output**

```
Hello PGLU
GMR
```

#Passing an Integer Arguments to a function for addition.

➢ **Input**

```
#! /bin/bash

Sum () {
    add=$(($1+$2))
    echo "The Sum of $1 and $2 is $add"
    }
    Sum 220 20
```

✓ **Output**

The sum of 220 and 20 is 240

➢ **Input**

```
#! /bin/bash

Sum () {
    add=$(($1+$2))
    echo "The sum of $1 and $2 is $add"
    }
    Sum 50 500
```

✓ **Output**

The sum of 50 and 500 is 550

➢ **Input**

```
    #! /bin/bash
Multiplication () {
    multiplication=$(($1*$2))
    echo "The multiplication of $1 and $2 is $multiplication"
    }
    Multiplication 5 7
```

✓ **Output**

The multiplication of 5 and 7 is 35

➢ **Input**

```
#! /bin/bash

Division () {
    division=$(($1/$2))
    echo "The division of $1 and $2 is $division"
    }
    Division 10 2
```

✓ **Output**

The division of 10 and 2 is 5

➢ **Input**

```
#! /bin/bash

f3 () {
    if [ $1 -ge 50 ]
    then
    echo "$1 is larger"
    else
    echo "$1 is smaller"
    fi
}
f3 14
```

✓ **Output**

```
14 is smaller
```

➢ **Input**

```
#! /bin/bash

f4 () {
    for i in 1 2 3 4 5
    do
            echo "Welcome to $i times"
    done
    }
f4
```

✓ **Output**

```
Welcome to 1 time
Welcome to 2 time
Welcome to 3 time
Welcome to 4 time
Welcome to 5 time
```

➢ **Input**

```
#! /bin/bash

f5 () {
for i in {1..10}
    do
            echo "Welcome to $i times"
    done
}
f5
```

✓ **Output**

```
Welcome to 1 times
Welcome to 2 times
Welcome to 3 times
Welcome to 4 times
Welcome to 5 times
Welcome to 6 times
Welcome to 7 times
Welcome to 8 times
Welcome to 9 times
Welcome to 10 times
```