

LAB 10

Course Code: CSC 2209

Course Title: Operating Systems



**Dept. of Computer Science
Faculty of Science and Technology**

Lecturer No:	10	Week No:	10	Semester:	
Lecturer:	<i>Name & email</i>				

Lecture Outline



1. Loop
2. While Loop
3. For Loop
4. For Loop With Commands
5. Select Loop With Cases
6. Until Loop
7. Break and Continue

Loop

- ❑ There are 4 type of loops in shell scripting.
 - ❑ The While Loop
 - ❑ The for Loop
 - ❑ The select loop
 - ❑ The until loop

While Loop

☐ Syntax

```
while [ condition ]  
do  
    statement  
    statement  
done
```

☐ Example

```
n=1  
while [ $n -le 10 ]  
do  
    echo "$n"  
    n=$(( n+1 )) or (( n++ )) or (( ++n ))  
done
```

For Loop

☐ Syntax

for VARIABLE in 1 2 3 4 5 .. N [We can use file also]

do

 statement

done

for OUTPUT in \$(unix command)

do

 statement

done

for ((initiate; condition; increment/decrement))

do

 statement

done

Example

```
for number in 1 2 3 4 5
```

```
do
```

```
    echo $number
```

```
done
```

*****The following syntax will work on bash version 4 or above*****

```
for number in {1..100} [This will loop through 1 to 100]
```

```
do
```

```
    echo $number
```

```
done
```

```
for number in {1..100..2} [This will increment by 2] [START..END..INCREMENT]
```

```
do
```

```
    echo $i
```

```
done
```

Example

❑ The familiar one

```
for (( i=0; i<10; i++ ))
```

```
do
```

```
    echo $i
```

```
done
```

For Loop With Commands

```
for command in ls pwd date
```

```
do
```

```
    echo "Command Name: $command" [with echo it will not execute]
```

```
    echo "Command Output:"
```

```
    $command [for executing only write the command]
```

```
done
```


Select Loop With Cases

select variable in alal dulal rahim
do

```
case $variable in                                [switch]
alal )                                           [case alal]
    echo Alal is selected
;;
dulal )                                         [case dulal]
    echo Dulal is selected
;;
rahim )                                       [case rahim]
    echo Rahim is selected
;;
* )                                           [default]
    echo Default
;;
esac
```

done

- ☐ • This will take inputs infinitely
- ☐ • Press Ctrl+C to exit

Until Loop

☐ Syntax

```
until [ condition ]
```

```
Do
```

```
    statement
```

```
done
```

☐ Example

```
#!/bin/sh
```

```
a=0
```

```
until [ ! $a -lt 10 ]
```

```
do
```

```
    echo $a
```

```
    a=`expr $a + 1`
```

```
done
```

Break and Continue



Break

```
for (( i=1; i<10; i++ ))
do
    if [ $i -gt 5 ]
    then
        break
    fi
    echo "$i"
done
```



Continue

```
for (( i=1; i<10; i++ ))
do
    if [ $i -eq 5 ]
    then
        continue
    fi
    echo "$i"
done
```



Books

- ❑ Unix Shell Programming
 - ❑ Written by Yashavant P. Kanetkar