

Script Task -2

Syntax for all loops in shell scripting

1. for Loop

```
ec2-user@ip-172-31-16-13:~$ vi for.sh
#!/bin/bash

# Basic for loop
for item in item1 item2 item3; do
    echo "Item: $item"
done

# For loop with C-style syntax (requires bash)
for ((i=1; i<=5; i++)); do
    echo "Iteration: $i"
done
```

Output:

```
[ec2-user@ip-172-31-16-13 ~]$ sh for.sh
Item: item1
Item: item2
Item: item3
Iteration: 1
Iteration: 2
Iteration: 3
Iteration: 4
Iteration: 5
```

2. while Loop

```
ec2-user@ip-172-31-16-13:~  
#!/bin/bash  
# Basic while loop  
count=1  
while [ $count -le 5 ]; do  
    echo "Count: $count"  
    ((count++))  
done  
:wq!
```

Output:

```
[ec2-user@ip-172-31-16-13 ~]$ vi while.sh
[ec2-user@ip-172-31-16-13 ~]$ sh while.sh
Count: 1
Count: 2
Count: 3
Count: 4
Count: 5
[ec2-user@ip-172-31-16-13 ~]$ |
```

3. until Loop

```
ec2-user@ip-172-31-16-13:~$ cat until.sh
#!/bin/bash
# Basic until loop
count=1
until [ $count -gt 5 ]; do
    echo "Count: $count"
    ((count++))
done
```

Output:

```
[ec2-user@ip-172-31-16-13 ~]$ sh until.sh
Count: 1
Count: 2
Count: 3
Count: 4
Count: 5
```

4. select Loop

```
ec2-user@ip-172-31-16-13:~$ cat loop.sh
#!/bin/bash
# Basic select loop
PS3="Please select an option: "
select option in "Option 1" "Option 2" "Option 3" "Quit"; do
    case $option in
        "Option 1")
            echo "You selected Option 1"
            ;;
        "Option 2")
            echo "You selected Option 2"
            ;;
        "Option 3")
            echo "You selected Option 3"
            ;;
        "Quit")
            break
            ;;
        *)
            echo "Invalid option"
            ;;
    esac
done
```

Output:

```
[ec2-user@ip-172-31-16-13 ~]$ touch loop.sh
[ec2-user@ip-172-31-16-13 ~]$ vi loop.sh
[ec2-user@ip-172-31-16-13 ~]$ sh loop.sh
1) Option 1
2) Option 2
3) Option 3
4) Quit
Please select an option: 1
You selected Option 1
Please select an option: 3
You selected Option 3
Please select an option: 4
```

5. break and continue Statements

```
ec2-user@ip-172-31-16-13:~$ cat break.sh
#!/bin/bash

# Using break
for i in {1..10}; do
    if [ $i -eq 5 ]; then
        break
    fi
    echo "Iteration: $i"
done

# Using continue
for i in {1..10}; do
    if [ $i -eq 5 ]; then
        continue
    fi
    echo "Iteration: $i"
done
```

Output:

```
[ec2-user@ip-172-31-16-13 ~]$ touch break.sh
[ec2-user@ip-172-31-16-13 ~]$ vi break.sh
[ec2-user@ip-172-31-16-13 ~]$ sh break.sh
Iteration: 1
Iteration: 2
Iteration: 3
Iteration: 4
Iteration: 1
Iteration: 2
Iteration: 3
Iteration: 4
Iteration: 6
Iteration: 7
Iteration: 8
Iteration: 9
Iteration: 10
[ec2-user@ip-172-31-16-13 ~]$ |
```