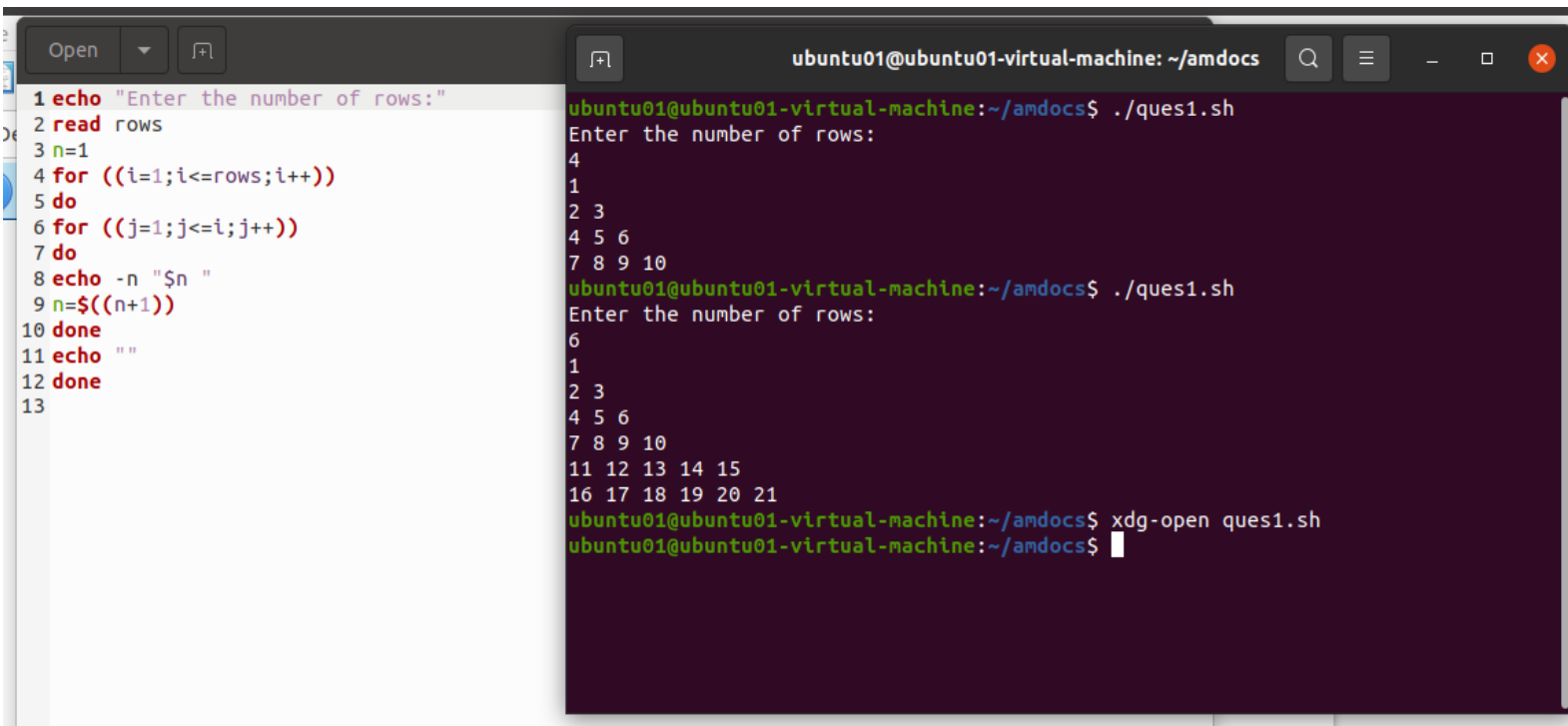


23/03/2023

SBA UNIX Day -3

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Q1)

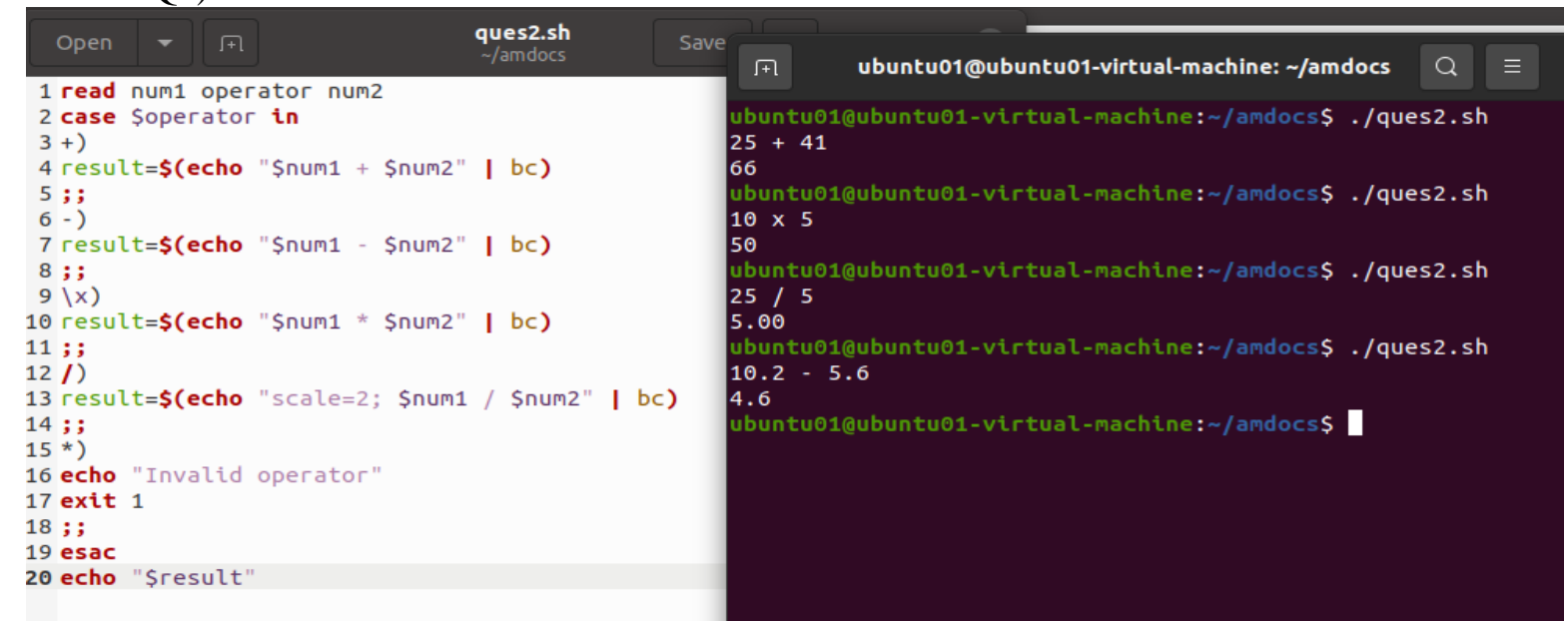


The screenshot shows a code editor on the left and a terminal window on the right. The code editor contains a shell script named `ques1.sh` that prompts the user to enter the number of rows and prints a pattern of numbers. The terminal shows the execution of the script, with the user entering 4, 1, and 6 rows, resulting in the following output:

```
1 echo "Enter the number of rows:"
2 read rows
3 n=1
4 for ((i=1;i<=rows;i++))
5 do
6 for ((j=1;j<=i;j++))
7 do
8 echo -n "$n "
9 n=$((n+1))
10 done
11 echo ""
12 done
13
```

```
ubuntu01@ubuntu01-virtual-machine: ~/amdocs
ubuntu01@ubuntu01-virtual-machine:~/amdocs$ ./ques1.sh
Enter the number of rows:
4
1
2 3
4 5 6
7 8 9 10
ubuntu01@ubuntu01-virtual-machine:~/amdocs$ ./ques1.sh
Enter the number of rows:
6
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
16 17 18 19 20 21
ubuntu01@ubuntu01-virtual-machine:~/amdocs$ xdg-open ques1.sh
ubuntu01@ubuntu01-virtual-machine:~/amdocs$
```

Q2)

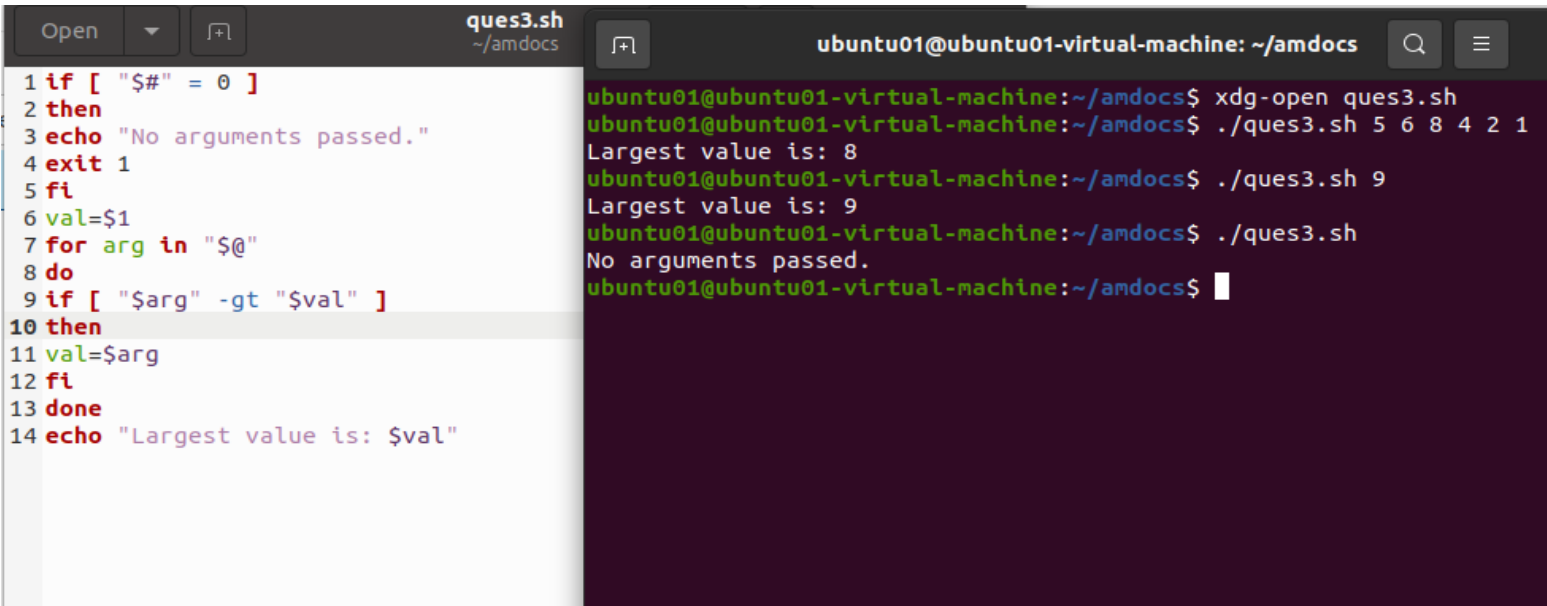


The screenshot shows a code editor on the left and a terminal window on the right. The code editor contains a shell script named `ques2.sh` that prompts the user to enter two numbers and an operator, and prints the result of the operation. The terminal shows the execution of the script, with the user entering 25, 41, 10, 25, and 10.2, resulting in the following output:

```
1 read num1 operator num2
2 case $operator in
3 +)
4 result=$(echo "$num1 + $num2" | bc)
5 ;;
6 -)
7 result=$(echo "$num1 - $num2" | bc)
8 ;;
9 \x)
10 result=$(echo "$num1 * $num2" | bc)
11 ;;
12 /)
13 result=$(echo "scale=2; $num1 / $num2" | bc)
14 ;;
15 *)
16 echo "Invalid operator"
17 exit 1
18 ;;
19 esac
20 echo "$result"
```

```
ubuntu01@ubuntu01-virtual-machine: ~/amdocs
ubuntu01@ubuntu01-virtual-machine:~/amdocs$ ./ques2.sh
25 + 41
66
ubuntu01@ubuntu01-virtual-machine:~/amdocs$ ./ques2.sh
10 x 5
50
ubuntu01@ubuntu01-virtual-machine:~/amdocs$ ./ques2.sh
25 / 5
5.00
ubuntu01@ubuntu01-virtual-machine:~/amdocs$ ./ques2.sh
10.2 - 5.6
4.6
ubuntu01@ubuntu01-virtual-machine:~/amdocs$
```

Q3)



The image shows a code editor on the left and a terminal window on the right. The code editor displays a shell script named `ques3.sh` located at `~/amdocs`. The script is as follows:

```
1 if [ "$#" = 0 ]
2 then
3 echo "No arguments passed."
4 exit 1
5 fi
6 val=$1
7 for arg in "$@"
8 do
9 if [ "$arg" -gt "$val" ]
10 then
11 val=$arg
12 fi
13 done
14 echo "Largest value is: $val"
```

The terminal window shows the execution of the script. The prompt is `ubuntu01@ubuntu01-virtual-machine: ~/amdocs`. The user runs `xdg-open ques3.sh`, then `./ques3.sh 5 6 8 4 2 1`, which outputs `Largest value is: 8`. Next, the user runs `./ques3.sh 9`, which outputs `Largest value is: 9`. Finally, the user runs `./ques3.sh` without arguments, which outputs `No arguments passed.`