

## PROGRAM 1:

```
echo "To identify the current shell and length of the string"  
echo "The current shell is=$SHELL"  
str1="Welcome to rathinam College"  
echo $str1  
len=${#str1}  
echo "Length of the string=$len"
```

## OUTPUT:

The screenshot shows the OneCompiler web interface. On the left, there is a code editor window titled 'length.sh' containing the provided Bash script. On the right, there is a results panel with tabs for 'Output' and 'Logs'. The 'Output' tab displays the program's output: 'To identify the current shell and length of the string', 'The current shell is=/bin/sh', 'Welcome to rathinam College', and 'Length of the string=27'. The 'Logs' tab shows a timestamp '2 ms | 3.7 MB'.

## PROGRAM 2:

```
echo "-----"  
echo "To count backwards for 100 to 0 using for loop"  
echo "-----"  
c=0  
for ((i=100; i>=0; --i))  
do  
echo "$i"
```

```

s=$[c++]

done

echo "-----"
echo "Count=$s"
echo "-----"

```

## OUTPUT:

The screenshot shows a terminal interface with a script file named 'script.sh' open. The script contains a for loop that counts down from 100 to 0, printing each number followed by 'Count=\$s'. The terminal window also shows the input provided via STDIN, which is a sequence of numbers from 24 down to 0, followed by the output 'Count=100'.

```

script.sh + 44cpnhvsn
script.sh
1 #!/bin/bash
2 echo "-----"
3 echo "To count backwards for 100 to 0 using for loop"
4 echo "-----"
5 c=0
6 for ((i=100; i>=0; --i))
7 do
8   echo "$i"
9   s=$[c++]
10 done
11 echo "-----"
12 echo "Count=$s"
13 echo "-----"

STDIN
Input for the program (Optional)
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
-----Count=100
-----
```

## PROGRAM 3:

```

echo "-----"
echo "Odd and Even numbers upto 100"
echo "-----"
even=0
odd=0
sum_of_odd=0
sum_of_even=0

```

```

for ((i=0; i<=100; i++))

do

if (( i % 2 == 0 ))

then

((even++))

((sum_of_even += i))

else

((odd++))

((sum_of_odd += i))

fi

done

echo "-----"

echo "Even Count = $even"

echo "Odd Count = $odd"

echo "Sum of Evens = $sum_of_even"

echo "Sum of Odds = $sum_of_odd"

echo "-----"

```

The screenshot shows a terminal window with the following details:

- Script Content:** The script is named 'script.sh' and contains code to calculate the sum of even and odd numbers up to 100.
- Terminal Header:** The terminal header includes tabs for AI, BASH, RUN, and other options.
- STDIN:** The input field is empty, labeled 'Input for the program (Optional)'.
- Output:** The output section displays the results of the script execution:
 

Statistic	Value
Even Count	= 51
Odd Count	= 50
Sum of Evens	= 2550
Sum of Odds	= 2500
- Performance Metrics:** The bottom right corner shows '2 ms | 3.9 MB'.

## PROGRAM 4

```
echo "-----"  
echo "To print the star in the descending order"  
echo "-----"  
for ((i=5; i>=1; i--))  
do  
    for ((j=1; j<=i; j++))  
        do  
            echo -n "*"  
        done  
    echo  
done  
echo "-----"
```

The screenshot shows the OneCompiler web interface. On the left, the code editor window displays the script named 'script.sh' with its content. The code is identical to the one shown above. On the right, the execution results are shown. The 'Output' section displays the printed stars in descending order from 5 to 1. The output is as follows:

```
To print the star in the descending order  
*****  
***  
**  
*
```