OPEARTING SYSTEM

Experiment No. 03

AIM → To Implent the programs in shell script.
① To find factorial of given No.
② To find greatest of three numbers.

Theory →

— Shell programming is supported by the differe
nt types of variables including array variable

— This variable Can hold multiple values at the
same time. Arrays provide a method of
grouping for set of varidbles.

— Instead of creating a new name for each
variable that's essential, we can use a single
array variable that can store all other
variables.

Defining an array in Shell programming →

Syntax →

    array_name[index] = value

Here, array name is the name of the array
that is assigned equals to value .which is
anothe variable.

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Conclusion ———→

Thus, we learnt to implement arrays in shell-script, and successfully implemented program for factorial of numbers and finded the greatest of three numbers.

Program codes:

Program 01

```bash
#!/bin/bash
factorial()
{
   product=$1

   if((product <= 2)); then
      echo $product
   else
      f=$((product -1))

f=$(factorial $f)
f=$((f*product))
echo $f
fi
}
echo "Please enter the Number to get the Factorial:"
read num
```

```
if((num == 0)); then

echo 1

else


factorial $num

fi
```

Output:


```
→  Practical Codes git:(master)   bash Experiment_4.sh
Please enter the Number to get the Factorial:
7
5040
```

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Program 02

echo "Enter three Integers:"

read a b c

if [$a -gt $b -a $a -gt $c]

then

echo "$a is Greatest"

elif [$b -gt $c -a $b -gt $a]

then

echo "$b is Greatest"

else

echo "$c is Greatest!"

fi

Output:

```
→  Practical Codes git:(master)   bash Experiment_3.sh
Enter three Integers:
8 7 6
8 is Greatest
```