

NEHAL JHAJHARIA (U20CS093)

OPERATING SYSTEM ASSIGNMENT 03

```
1
factor <num>
eg: factor 6
```

```
2
#!/bin/bash

read -p "Enter a number : " num

i=1
rem=0
while [ $i -le $num ]
do
    rem=$(( $num % $i ))
    if [ $rem -eq 0 ]
    then echo -n "$i "
    fi
    i=$(( i + 1 ))
done
echo
```

```
3
#!/bin/bash

h=$(date +"%H")

if [ $h -lt 12 ]
then echo "Good Morning"
else
    echo "Good Evening"
fi
```

```
4
#!/bin/bash

read -p "Enter a number : " num
read -p "Enter a word : " word

i=0
```

```
while [ $i -lt $num ]
do
    echo "$word"
    i=$(( $i + 1 ))
done
```

```
5
grep -cv -P '\S' A3+4.sh
```

```
6
#!/bin/bash
```

```
read -p "Enter a number : " num
cubesum=0
n=$num
```

```
while [ $num -gt 0 ]
do
    rem=$(( $num % 10 ))
    rem=$(( $rem * $rem * $rem ))
    cubesum=$(( $cubesum + $rem ))
    num=$(( $num / 10 ))
done
```

```
echo "Sum of cubes of digits = $cubesum"
```

```
if [ $n -eq $cubesum ]
then
    echo "Armstrong number"
else
    echo "NOT Armstrong number"
fi
```

```
7
#!/bin/bash
```

```
read -p "Enter a string : " a
read -p "Enter another string : " b
```

```
a+=$b
echo "$a"
```

```
8
#!/bin/bash
```

```
len=5
b=""
while [ $len -gt 0 ]
do
```

```
    read -p "Enter a string : " a
    b+= $a
    len=$(( $len - 1 ))
done
```

```
echo "$b"
```

```
9
#!/bin/bash
```

```
read -p "Enter a string : " str
```

```
read -p "Substring starts at : " b
read -p "Length of substring : " l_sub
```

```
substr="${str:$b:$l_sub}"
echo "$substr"
```

```
10
#!/bin/bash
```

```
read -p "Enter string1 : " a
read -p "Enter string2 : " b
```

```
if [ "$a" == "$b" ]
then  echo "EQUAL"
else  echo "UNEQUAL"
fi
```

```
11
#!/bin/bash
```

```
read -p "Enter a string : " str
reverse=""
len=${#str}
```

```
for (( i=$len-1; i>=0; i-- ))
do
    reverse+="${str:$i:1}"
done
```

```
if [ $str == $reverse ]
then  echo "Palindrome"
else  echo "NOT Palindrome"
fi
```

12

```
#!/bin/bash
```

```
read -p "Enter a number : " num
```

```
i=1
```

```
rem=0
```

```
sum=0
```

```
while [ $i -lt $num ]
```

```
do
```

```
    rem=$(( $num % $i ))
```

```
    if [ $rem -eq 0 ]
```

```
    then    sum=$(( $sum + $i))
```

```
    fi
```

```
    i=$(( i + 1 ))
```

```
done
```

```
if [ $num -eq $sum ]
```

```
then    echo "Perfect"
```

```
else    echo "NOT perfect"
```

```
fi
```

13

```
#!/bin/bash
```

```
read -p "Enter a 5 digit number : " num
```

```
i=1
```

```
rem=0
```

```
flag=1
```

```
arr=(0 0 0)
```

```
j=2
```

```
while [ $i -le 5 ]
```

```
do
```

```
    rem=$(( $num % 10 ))
```

```
    num=$(( $num / 10 ))
```

```
    if [ $flag -eq 1 ]
```

```
    then
```

```
        arr[$j]=$rem
```

```
        j=$(( $j - 1 ))
```

```
        flag=0
```

```
    else
```

```
        flag=1
```

```
    fi
```

```
    i=$(( i + 1 ))
```

```
done
```

```
for (( j=0; j<3; j++ ))
```

```
do
```

```
    echo "${arr[$j]}"  
done
```