



NATIONAL INSTITUTE OF TECHNOLOGY PUDUCHERRY
(An Institution of National Importance under MHRD, Govt. of India)

KARAIKAL – 609 609

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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Class: BTech. 3rd Year

Subject Code: CS305

Subject Name: UNIX PROGRAMMING

EXERCISE 8

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AIM: Write shell scripts for the following:

Find a year is leap year or not.

Find a number is odd or even.

Find grade of a student given is percentage.

PROGRAM:

1. Year is leap year or not:

```
echo Enter year to be checked:
read year
if [ `expr $year % 400` -eq 0 ]
then
    echo $year is a leap year.
elif [ `expr $year % 100` -eq 0 ]
then
    echo $year is not a leap year.
elif [ `expr $year % 4` -eq 0 ]
then
    echo $year is a leap year.
else
    echo $year is not a leap year.
fi
```

2. Find a number is odd or even.

```
echo "Enter number to be checked:"
read NUMBER
if [ `expr $NUMBER % 2` == 0 ]
then
    echo "$NUMBER is even."
else
    echo "$NUMBER is odd."
fi
```

3. Find grade of a student given is percentage.

```
echo "Enter percentage:"
read PERCENTAGE
if [[ $PERCENTAGE -ge 90 && $PERCENTAGE -le 100 ]]
then
    echo "Grade: S"
elif [[ $PERCENTAGE -ge 80 && $PERCENTAGE -le 89 ]];
then
    echo "Grade: A"
elif [[ $PERCENTAGE -ge 70 && $PERCENTAGE -le 79 ]];

then
    echo "Grade: B"
elif [[ $PERCENTAGE -ge 60 && $PERCENTAGE -le 69 ]];
then
    echo "Grade: C"
elif [[ $PERCENTAGE -ge 50 && $PERCENTAGE -le 59 ]];
then
    echo "Grade: D"
elif [[ $PERCENTAGE -ge 40 && $PERCENTAGE -le 49 ]];

then
    echo "Grade: E"
else
    echo "Grade: F"
fi
```

OUTPUT:

1.

```
aneesha@aneesha-vm:~$ cd Desktop/  
aneesha@aneesha-vm:~/Desktop$ cd shell-script/  
aneesha@aneesha-vm:~/Desktop/shell-script$ ./leap.sh  
Enter a year:2004  
2004 is a leap year  
aneesha@aneesha-vm:~/Desktop/shell-script$
```

2.

```
aneesha@aneesha-vm:~/Desktop/shell-script$ ./odd.sh  
Enter the number:  
4  
4 is an even number  
aneesha@aneesha-vm:~/Desktop/shell-script$
```

3.

```
aneesha@aneesha-vm:~/Desktop/shell-script$ chmod u+x grade.sh  
aneesha@aneesha-vm:~/Desktop/shell-script$ ./grade.sh  
Enter percentage:  
59  
Grade: D  
aneesha@aneesha-vm:~/Desktop/shell-script$
```