Week 2: Shell Script Programs

1. Write a shell script to find if the given year is leap or not.

→ nano leap.sh.

```
#!/bin/bash.
echo "Enter a Year:"
read year
if [ $((year % 4)) -eq 0].
then
    if [ $((year %100)) -eq 0].
    then
        if [ $((year %400)) -eq 0].
        then
            echo "$year is a leap year".
        else
            echo "$year is not a leap year"
        fi
    else
        echo "$year is a leap year".
    fi.
else
    echo "$year is not a leap year".
fi.
```

OUTPUT:

```
sh leap.sh.
Enter a Year
2022
2022 is not a leap year.
$ sh leap.sh.
Enter a Year
2004
2004 is a leap year.
```

2. Write a shell script to find the biggest of three numbers.

→ vano greatest.sh.

→ #!/bin/bash.

```
echo "Enter first number:"
read num1
echo "Enter second number:"
read num2
echo "Enter third number:"
read num3
if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
then
    echo "\n $num1 is the greatest"
elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]
then
    echo "\n $num2 is the greatest"
else
echo "\n $num3 is the greatest".
fi.
```

OUTPUT.

```
Enter first number:
2
Enter second number:
4
Enter third number:
10
10 is the greatest.
```

3. Write a shell script to check whether the number is zero / positive / negative.

→ nano num.sh

⇒
```
#!/bin/bash
echo "Enter first number:"
read num
if [ $num -gt 0 ]
then
    echo "$num is positive"
elif [ $num -lt 0 ]
then
    echo "$num is negative"
else
    echo "$num is zero"
fi
```

OUTPUT:

```
$ sh num.sh
Enter first number:
0
0 is zero.
$ sh num.sh
Enter first number
-2
-2 is negative
$ sh num.sh
Enter first number
6
6 is positive.
```

→ Extra Program Questions

1. Write a shell script the accept the marks of a student from the user. Find the grade and display the same.

→ name grade.sh.

→ #!/bin/bash

```
echo "Enter student marks:"
read num
if [ $num -ge 90 ] && [ $num -lt 100 ]
then
        ans='S'
elif [ $num -ge 80 ] && [ $num -lt 90 ]
then
        ans='A'
elif [ $num -ge 70 ] && [ $num -lt 80 ]
then
        ans='B'
elif [ $num -ge 60 ] && [ $num -lt 70 ]
then
        ans='C'
elif [ $num -ge 50 ] && [ $num -lt 60 ]
then
        ans='D'
elif [ $num -ge 40 ] && [ $num -lt 50 ]
then
        ans='E'
elif [ $num -ge 30 ] && [ $num -lt 40 ]
then
        ans='F'
else
        echo "enter valid marks"
        exit 0
fi
```

echo "GRADE of the student = $ans"

OUTPUT:
sh grade.sh
Enter student marks:
94
Grade of the student = S

→5. Write a shell script to check 2 arguments passed to

→ nano cmp.sh
2) #!/bin/bash
if [$1 -eq $2]
then
    echo "Both parameters are equal"
else
    echo "Both parameters are unequal"
fi

OUTPUT:
$./cmp.sh 5 6
Both parameters are unequal
$ ./cmp.sh 5 5
Both parameters are equal

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