

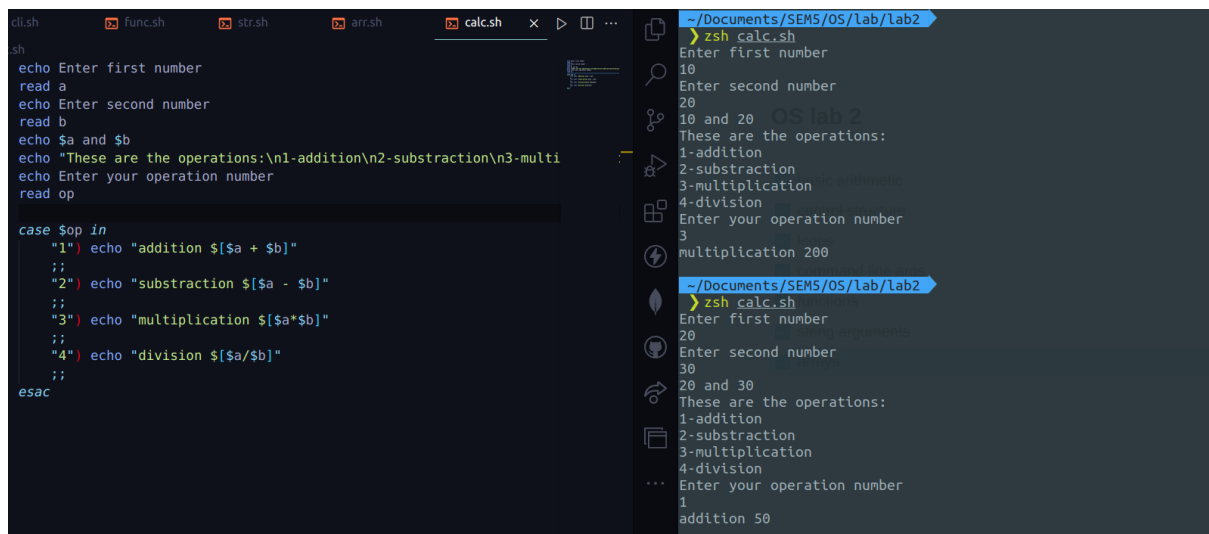
ASSIGNMENT 2

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1. Basic arithmetic operations



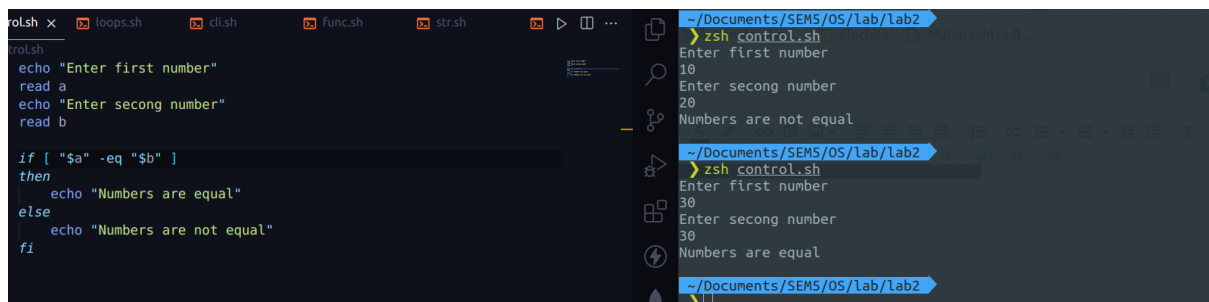
```
clish x func.sh str.sh arr.sh calc.sh x ...
sh
echo Enter first number
read a
echo Enter second number
read b
echo $a and $b
echo "These are the operations:\n1-addition\n2-substraction\n3-multi
echo Enter your operation number
read op

case $op in
  "1") echo "addition ${a} + ${b}"
  ;;
  "2") echo "substraction ${a} - ${b}"
  ;;
  "3") echo "multiplication ${a}*${b}"
  ;;
  "4") echo "division ${a}/${b}"
  ;;
  *)
  esac

~/Documents/SEMS/OS/Lab/Lab2
> zsh calc.sh
Enter first number
10
Enter second number
20
10 and 20
These are the operations:
1-addition
2-substraction
3-multiplication
4-division
Enter your operation number
3
multiplication 200

~/Documents/SEMS/OS/Lab/Lab2
> zsh calc.sh
Enter first number
20
Enter second number
30
20 and 30
These are the operations:
1-addition
2-substraction
3-multiplication
4-division
... Enter your operation number
1
addition 50
```

2. Control structure



```
rolsh x loops.sh clish func.sh str.sh x ...
rolsh
echo "Enter first number"
read a
echo "Enter secong number"
read b

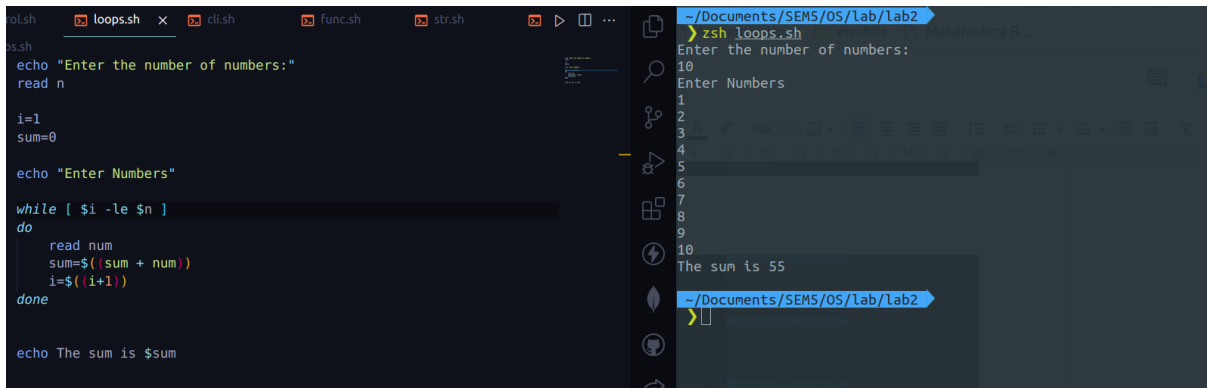
if [ "$a" -eq "$b" ]
then
  echo "Numbers are equal"
else
  echo "Numbers are not equal"
fi

~/Documents/SEMS/OS/Lab/Lab2
> zsh control.sh
Enter first number
10
Enter second number
20
Numbers are not equal

~/Documents/SEMS/OS/Lab/Lab2
> zsh control.sh
Enter first number
30
Enter second number
30
Numbers are equal

~/Documents/SEMS/OS/Lab/Lab2
>
```

3. Loops



```
loops.sh x cli.sh func.sh str.sh
loops.sh
echo "Enter the number of numbers:"
read n

i=1
sum=0

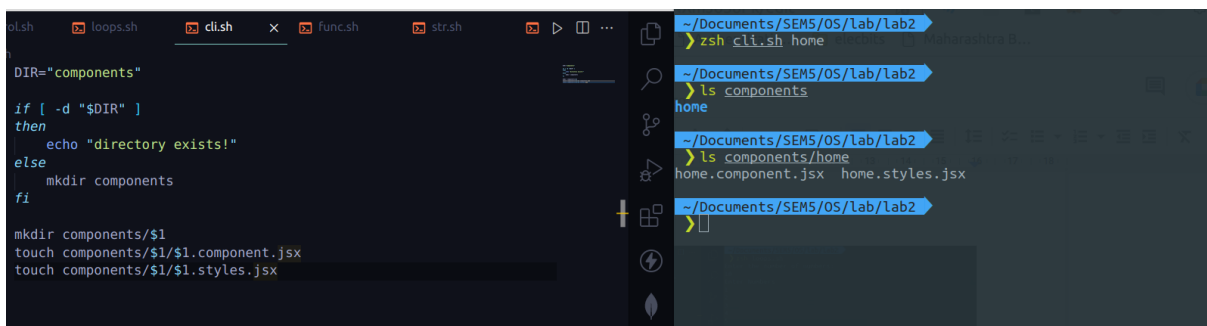
echo "Enter Numbers"

while [ $i -le $n ]
do
    read num
    sum=$((sum + num))
    i=$((i+1))
done

echo The sum is $sum
```

~/Documents/SEMS/OS/Lab/lab2
zsh loops.sh
Enter the number of numbers:
10
Enter Numbers
1
2
3
4
5
6
7
8
9
10
The sum is 55

4. Command line arguments



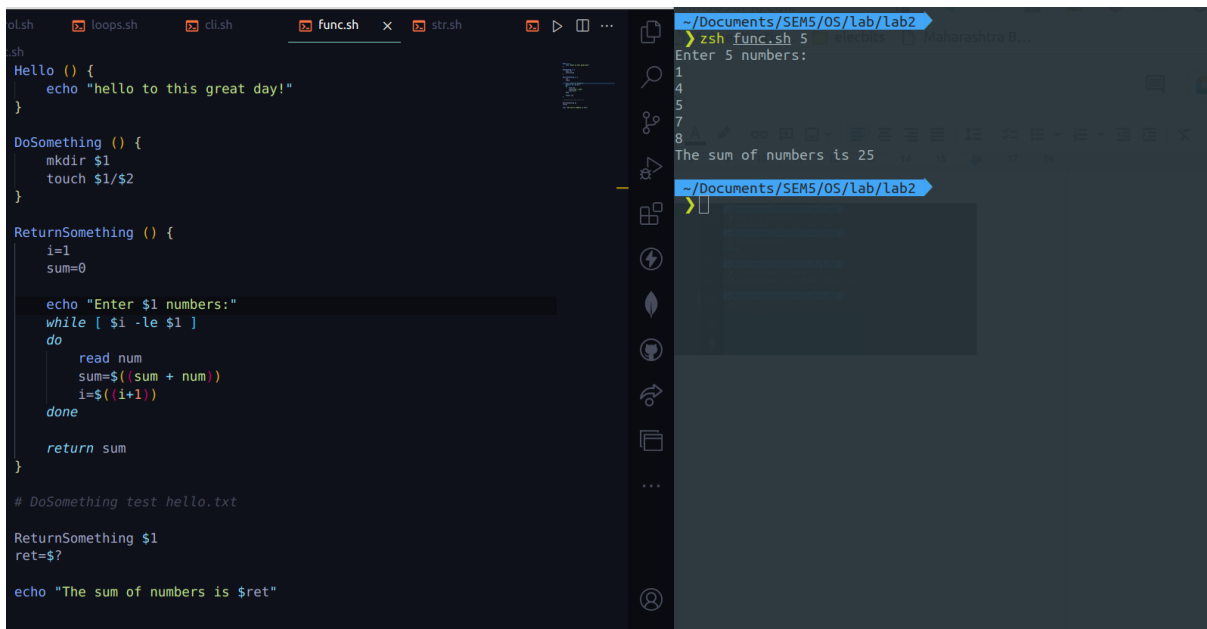
```
loops.sh cli.sh x func.sh str.sh
cli.sh
DIR="components"

if [ -d "$DIR" ]
then
    echo "directory exists!"
else
    mkdir components
fi

mkdir components/$1
touch components/$1/$1.component.jsx
touch components/$1/$1.styles.jsx
```

~/Documents/SEMS/OS/Lab/lab2
zsh cli.sh home electrics Maharashtra B...
~/Documents/SEMS/OS/Lab/lab2
ls components
home
~/Documents/SEMS/OS/Lab/lab2
ls components/home
home.component.jsx home.styles.jsx

5. Functions



```
loops.sh cli.sh func.sh x str.sh
func.sh
Hello () {
    echo "hello to this great day!"
}

DoSomething () {
    mkdir $1
    touch $1/$2
}

ReturnSomething () {
    i=1
    sum=0

    echo "Enter $1 numbers:"
    while [ $i -le $1 ]
    do
        read num
        sum=$((sum + num))
        i=$((i+1))
    done

    return sum
}

# DoSomething test hello.txt
ReturnSomething $1
ret=$?

echo "The sum of numbers is $ret"
```

~/Documents/SEMS/OS/Lab/lab2
zsh func.sh 5
Enter 5 numbers:
1
4
5
7
8
The sum of numbers is 25

6. String operations

```
loops.sh  cli.sh  func.sh  str.sh  x  >  []  ...
h
echo "Enter the string:"
read a

echo "The lenght of string is ${#a}"

echo "Enter two string to be adeed"
read b
read c

d=${b}-${c}

echo "The concatenation is $d"

echo "substring operation"
echo "Enter the string"
read k
# echo "Enter the length"
# read m

echo "The result is ${k:1:5}"

~/Documents/SEMS/OS/Lab/lab2
> zsh str.sh
Enter the string:
hello
The lenght of string is 5
Enter two string to be adeed
hello
world
The concatenation is hello-world
substring operation
Enter the string
thisistheendofworld
The result is hisis
```

7. Arrays

```
loops.sh  cli.sh  func.sh  str.sh  arr.sh  x  >  []  ...
h
arr=(shivam 1 2 3 4 rahul)

echo ${arr[@]}
echo "The lenght of arrays is ${#arr}"

echo "Iterating through an array"
i=1
n=${#arr}

while [ $i -le $n ]
do
    echo "current element: ${arr[i]}"
    i=$((i+1))
done

~/Documents/SEMS/OS/Lab/lab2
> zsh arr.sh
shivam 1 2 3 4 rahul
The lenght of arrays is 6
Iterating through an array
current element: shivam
current element: 1
current element: 2
current element: 3
current element: 4
current element: rahul
```