OS Lab03

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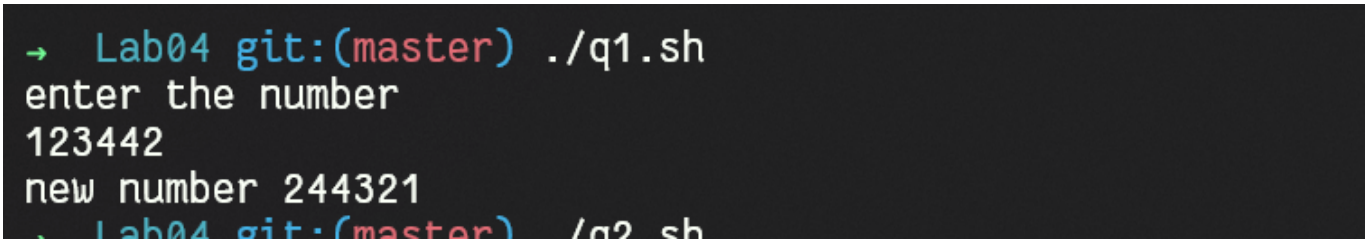
Question 1

Write a shell script to reverse a given integer.

Solution

```
#!/bin/bash

echo enter the number

read num


newNum=0

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

echo new number $newNum
```

Output



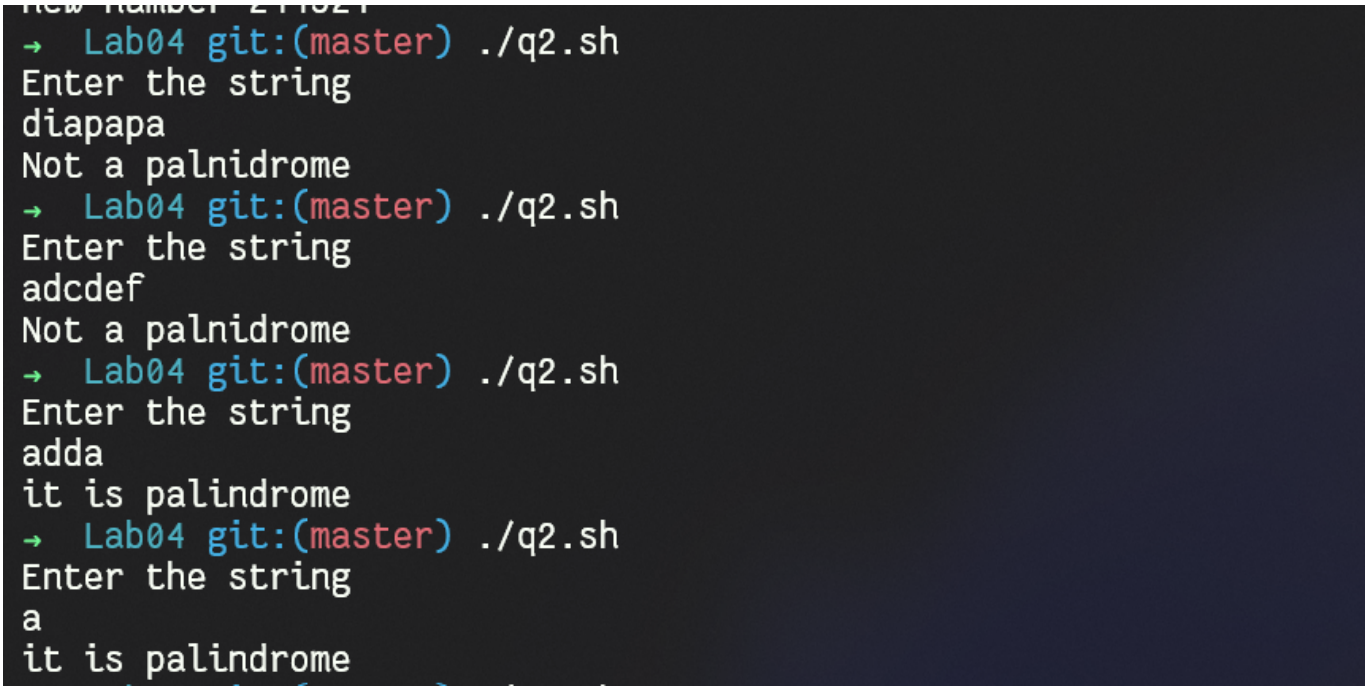
Question 2

Write a shell script to verify whether the given string is a palindrome or not.

Solution

```bash
#!/bin/bash

echo Enter the string

read str


left=0
right=$(( ${#str} - 1 ))

#echo left $left right $right

# echo ${str:4:1}

while [ $left -lt $right ]
do
    if [ ${str:left:1} != ${str:right:1} ]; then
        echo Not a palnidrome
        exit 0
    fi

    left=$(( $left + 1))
    right=$(( $right - 1 ))
done

echo it is palindrome
```

Output



Question 3

Write a shell program which takes maximum 8 integer type arguments through command line and do the following operation:

- If the first argument/last result (a) is divisible by send argument (b) then new result = a/b
- else If (a%b != 0) and b is divisible by 5 then new result=a*b
- else if (a>b) then new result = a-b
- else new result = a+b

Solution

```
#!/bin/bash

a=$1
b=$2

res=0

if [ $(( $a % $b )) -eq 0 ]; then
    res=$(( $a / $b ))
elif [ $(( $b % 5 )) -eq 0 ]; then
    res=$(( $a * $b ))
elif [ $a -gt $b ]; then
    res=$(( $a - $b ))
else
    res=$(( $a + $b ))
fi

echo res: $res
```

Output