Vellore Institute of Technology

Principles of Operating Systems Lab (CBS1006)

Digital Assignment 2

**Date**: 11 September 2022
Name: Anuj Parihar
Registration Number: 21BBS0162

Question 1: . Create a shell script programme that checks whether an input number is a palindrome.

Code:

echo "Registration Number: 21BBS0162"

echo "Name: Anuj Parihar"

echo "Enter a number: "

read num

temp=$num

rev=0

while [$num -gt 0]

do

a=`expr $num % 10`

num=`expr $num / 10`

rev=`expr $rev \* 10 + $a`

done

if [$temp -eq $rev]

then

echo "Number is palindrome"

else

echo "Number is not palindrome"

fi

Screenshot:
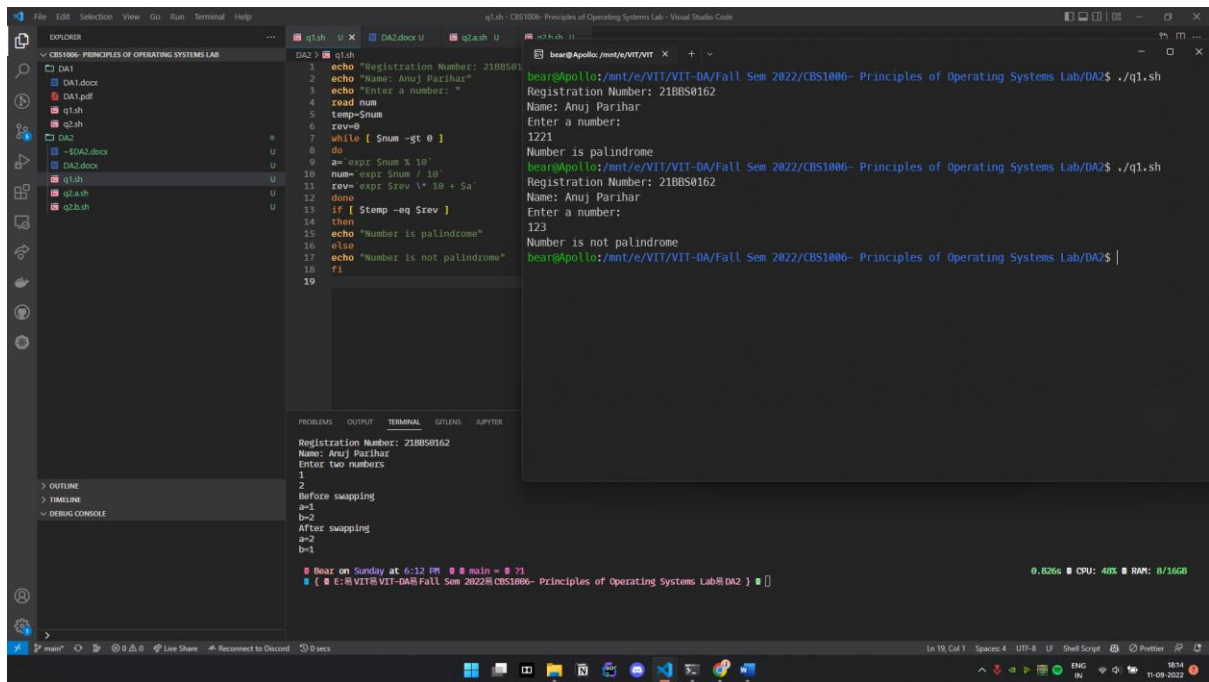
```
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$ ./q1.sh
Registration Number: 21BBS0162
Name: Anuj Parihar
Enter a number:
1221
Number is palindrome
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$ ./q1.sh
Registration Number: 21BBS0162
Name: Anuj Parihar
Enter a number:
123
Number is not palindrome
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$
```

Question 2 a: Write a shell script program to swap two numbers with third variable.

Code:

```
echo "Registration Number: 21BBS0162"

echo "Name: Anuj Parihar"

echo "Enter two numbers"

read a

read b

echo "Before swapping"

echo "a=$a"

echo "b=$b"

temp=$a

a=$b

b=$temp

echo "After swapping"

echo "a=$a"

echo "b=$b"
```

Screenshot:

```
echo "Registration Number: 21BBS01
echo "Name: Anuj Parihar"
echo "Enter two numbers"
read a
read b
echo "Before swapping"
echo "a=$a"
echo "b=$b"
temp=$a
a=$b
b=$temp
echo "After swapping"
echo "a=$a"
echo "b=$b"
```

```
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$ ./q
q1.sh    q2.a.sh   q2.b.sh
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$ ./q2.a.sh
Registration Number: 21BBS0162
Name: Anuj Parihar
Enter two numbers
23
446
Before swapping
a=23
b=446
After swapping
a=446
b=23
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$
```



```
q1.sh    q2.a.sh   q2.b.sh
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$ ./q2.a.sh
Registration Number: 21BBS0162
Name: Anuj Parihar
Enter two numbers
23
446
Before swapping
a=23
b=446
After swapping
a=446
b=23
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$
```

Question 2 b: Write a shell script program to swap two numbers without third variable.

Code:

echo "Registration Number: 21BBS0162"

echo "Name: Anuj Parihar"

echo "Enter two numbers"

read a

read b

echo "Before swapping"

echo "a=$a"

echo "b=$b"

a=`expr $a + $b`

b=`expr $a - $b`
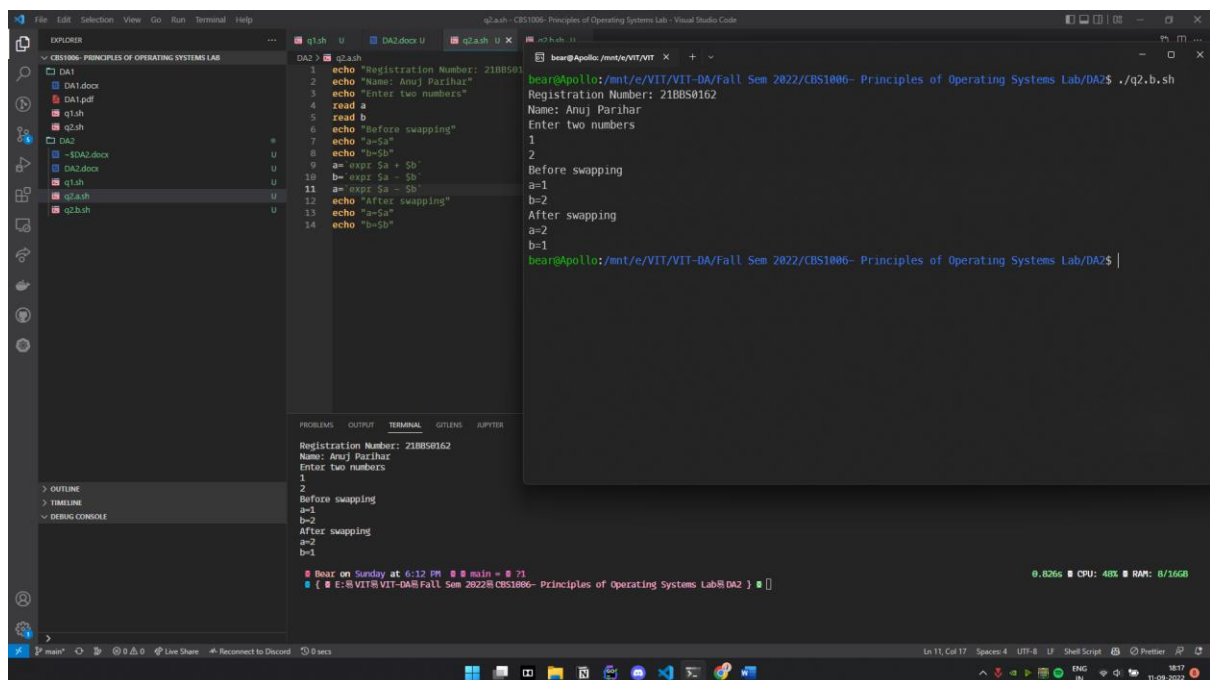
a=`expr $a - $b`

echo "After swapping"

echo "a=$a"

echo "b=$b"

Screenshot:

```
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$ ./q2.b.sh
Registration Number: 21BBS0162
Name: Anuj Parihar
Enter two numbers
1
2
Before swapping
a=1
b=2
After swapping
a=2
b=1
bear@Apollo:/mnt/e/VIT/VIT-DA/Fall Sem 2022/CBS1006- Principles of Operating Systems Lab/DA2$
```