

Scripting problems

Write a shell script - read input from user & print palindrome or not

```
#!/bin/bash
echo "Enter a value to check if it's a palindrome: "
read value
if [[ "$value" = $(echo $value | rev) ]]
then
    echo "$value is a palindrome."
else
    echo "$value is not a palindrome."
fi
```

TESTCASES

NO1:

Input: msmsmsm

Output: msmsmsm is a palindrome.

NO2:

Input: 11211

Output: 11211 is a palindrome.

NO3:

Input: nfks

Output: nfks is not a palindrome.

NO4:

Input: nn33nn4

Output: nn33nn4 is not a palindrome.

Write a shell script - read input from user & generated fibonacci series

```
#!/bin/bash
while :
do
    read -p "Enter no of elements to be printed in fibonnaci serie: (n>0) " N
    if [[ "$N" =~ ^[0-9]+$ && $N -ne 0 ]]; then
        break
    else
        echo "Invalid input, please try again."
    fi
done

if [[ "$N" -eq 1 ]]
then
    echo "The Fibonnaci series is : 0"
    exit "0"
fi

if [[ "$N" -eq 2 ]]; then
    echo "The Fibonnaci series is : 0 1"
    exit "0"
fi
```

```

NUMBER1=0
NUMBER2=1
echo "The Fibonnaci series is :"
echo "0"
echo "1"
for ((i=3;i<=N;++i)); do
    NUMBER2=$((NUMBER1+NUMBER2))
    NUMBER1=$((NUMBER2-NUMBER1))
    echo "$NUMBER2"
done

```

TESTCASES

NO1:

```

Enter no of elements to be printed in fibonnaci serie: (n>0) 4
The Fibonnaci series is :
0
1
1
2

```

NO2:

```

Enter no of elements to be printed in fibonnaci serie: (n>0) s
Invalid input, please try again.
Enter no of elements to be printed in fibonnaci serie: (n>0) 2
The Fibonnaci series is : 0 1

```

NO3:

```

Enter no of elements to be printed in fibonnaci serie: (n>0) 10
The Fibonnaci series is :
0
1
1
2
3
5
8
13
21
34

```

Write a shell script - read input from user & check prime or not

```

#!/bin/bash
echo "Enter a number to check if its prime or not:"
read NUMBER

if [[ "$NUMBER" = 1 ]]
then
    echo "$NUMBER is not a prime number"
    exit "0"
elif [[ "$NUMBER" -lt 4 ]]
then
    echo "$NUMBER is a prime number"
    exit "0"
elif [[ $((NUMBER % 2)) -eq 0 || $((NUMBER % 3)) -eq 0 ]]

```

```

then
    echo "$NUMBER is not a prime number"
    exit "0"
fi

for((i=5;(i * i)<=$NUMBER;++i))
do
    if [[ $((NUMBER % i)) -eq 0 || $((NUMBER % (i+2))) -eq 0 ]]
    then
        echo "$NUMBER is not a prime number"
        exit "0"
    fi
done

echo "$NUMBER is a prime number"
-----

```

TESTCASES

NO1:

Enter a number to check if its prime or not:

1

1 is not a prime number

NO2:

Enter a number to check if its prime or not:

2

2 is a prime number

NO3:

Enter a number to check if its prime or not:

50

50 is not a prime number

NO4:

Enter a number to check if its prime or not:

31

31 is a prime number

Write a shell script - read search string from user, check in the particular directory files content and output filename & number of occurrence in the respective file

```
#!/bin/bash
```

```
read -p "Enter a String to check its occurrence: " SEARCH
```

```
while :
```

```
do
```

```
    read -p "Enter the directory path to check occurrence: " MY_DIR_PATH
```

```
    if [[ -d "$MY_DIR_PATH" ]]
```

```
    then
```

```
        NUM_OF_FILES=$(ls "$MY_DIR_PATH" | wc -l)
```

```
        break
```

```
    else
```

```
        echo "Invalid directory path"
```

```
    fi
```

```
done
```

```
echo "The String pattern \"$SEARCH\" in each file:"
```

```
for FILE in $MY_DIR_PATH/*
do
    WORDS=$(cat $FILE | tr '[:upper:]' '[:lower:]')
    WORD_COUNT=$(echo "$WORDS" | grep -o "$SEARCH" | wc -l)
    echo "$(basename $FILE) : $WORD_COUNT"
done
```

TESTCASES

NO1:

Enter a String to check its occurrence: in

Enter the directory path to check occurrence: /Users/franklinedward/
Documents/Scripts/different_files

The String in in each file:

file1.txt :	13
file2.txt :	9
file3.txt :	6
files4.txt :	10

NO2:

Enter a String to check its occurrence: once

Enter the directory path to check occurrence: /Users/franklinedward/
Documents/Scripts/different_files

The String once in each file:

file1.txt :	1
file2.txt :	1
file3.txt :	1
files4.txt :	1

NO3:

Enter a String to check its occurrence: he

Enter the directory path to check occurrence: /Users/franklinedward/
Documents/Scripts/different_files

The String he in each file:

file1.txt :	35
file2.txt :	31
file3.txt :	29
files4.txt :	33