

LAB Assignment 3

1. Add Two Numbers:

```
#!/bin/bash
echo "Enter first number:"
read num1
echo "Enter second number:"
read num2
sum=$((num1 + num2))
echo "Sum of $num1 and $num2 is: $sum"
```

2. Compare Two Strings:

```
#!/bin/bash
echo "Enter the first string:"
read str1
echo "Enter the second string:"
read str2
if [ "$str1" = "$str2" ]; then
    echo "Strings are equal."
else
    echo "Strings are not equal."
fi
```

3. Generate Fibonacci Series:

```
#!/bin/bash
echo "Enter the number of terms in the Fibonacci series:"
read n
a=0
b=1
```

```

echo "Fibonacci series:"
for ((i=0; i<n; i++)); do
    echo -n "$a "
    temp=$((a + b))
    a=$b
    b=$temp
done
echo

```

4. Check Vowel or Consonant:

```

#!/bin/bash
echo "Enter a character:"
read char
case "$char" in
    [aeiouAEIOU]) echo "$char is a VOWEL." ;;
    [a-zA-Z]) echo "$char is a CONSONANT." ;;
    *) echo "Invalid input." ;;
esac

```

5. Count Words and Lines in a File:

```

#!/bin/bash
echo "Enter the filename:"
read filename
if [ -f "$filename" ]; then
    words=$(wc -w < "$filename")
    lines=$(wc -l < "$filename")
    echo "Total words: $words"
    echo "Total lines: $lines"
else
    echo "File not found."
fi

```

6. Display File Information:

```
#!/bin/bash
echo "Enter the filename:"
read filename
if [ -f "$filename" ]; then
    size=$(du -h "$filename" | cut -f1)
    permissions=$(ls -l "$filename" | awk '{print $1}')
    owner=$(stat -c %U "$filename")
    modification_time=$(stat -c %y "$filename")
    echo "File size: $size"
    echo "Permissions: $permissions"
    echo "Owner: $owner"
    echo "Modification time: $modification_time"
else
    echo "File not found."
fi
```

7. Display System Information:

```
#!/bin/bash
echo "Operating System Version:"
uname -a
echo "CPU Information:"
lscpu
echo "Memory Information:"
free -m
echo "Disk Usage:"
df -h
echo "Network Details:"
ifconfig
```