

SYSTEM SOFTWARE
SEMESTER-IV
LAB SHEET-5

Name: Mohammad Ahmad Ansari

PRN: 20220802059

Batch: A2

- 1) Shell Script to check whether a given number is a palindrome or not.

```
1 #!/bin/bash
2
3 # Function to check if a number is palindrome
4 is_palindrome() {
5     num=$1
6     reverse_num=$(echo $num | rev)
7     if [ "$num" = "$reverse_num" ]; then
8         echo "$num is a palindrome"
9     else
10        echo "$num is not a palindrome"
11    fi
12 }
13
14 # Main script
15 read -p "Enter a number: " number
16
17 # Check if the input is a number
18 if ! [[ $number =~ ^[0-9]+$ ]]; then
19     echo "Invalid input. Please enter a valid number."
20     exit 1
21 fi
22
23 is_palindrome $number
```

```
username@Linux:~$ touch SS_LAB_ASSIGNMENT_05Q1.sh
username@Linux:~$ bash SS_LAB_ASSIGNMENT_05Q1.sh
Enter a number: 121
121 is a palindrome
username@Linux:~$ bash SS_LAB_ASSIGNMENT_05Q1.sh
Enter a number: 5423
5423 is not a palindrome
username@Linux:~$
```

- 2) Shell Script to find the sum of n numbers using for loop.

```
1 #!/bin/bash
2
3 # Function to find the sum of n numbers
4 sum_of_numbers() {
5     sum=0
6     for num in "$@"; do
7         sum=$((sum + num))
8     done
9     echo "The sum of the numbers is: $sum"
10 }
11
12 # Main script
13 read -p "Enter the count of numbers (n): " count
14
15 # Check if the input is a number
16 if ! [[ $count =~ ^[0-9]+$ ]]; then
17     echo "Invalid input. Please enter a valid number."
18     exit 1
19 fi
20
21 # Read the numbers and calculate the sum
22 numbers=()
23 for ((i=1; i<=$count; i++)); do
24     read -p "Enter number $i: " num
25     numbers+=("$num")
26 done
27
28 sum_of_numbers "${numbers[@]}"
```

```
username@Linux:~$ bash SS_LAB_ASSIGNMENT_05Q2.sh
Enter the count of numbers (n): 3
Enter number 1: 432
Enter number 2: 231
Enter number 3: 2341
The sum of the numbers is: 3004
```