EmbedUR - Linux Training Program

Module - 4

Assignment – 25 (Conditional Loops)

1) Find the sum of first n prime numbers.

File:

```
#!/bin/bash

read -p "enter N: " N

n=0
num=2
sum=0
count=0
is_prime=1

echo "Prime numbers are: "
while [ $count -lt $N ]
do
  is_prime=1
  for((i=2;i<=N;i++));
  do
    if [ $(( $num % $i )) -eq 0 ]; then
     is_prime=0
     break
    fi
  done

if [ $is_prime -eq 1 ]; then
  echo "$num"
  sum=$((sum + num))
  count=$((count + 1))
fi

num=$((num + 1))
done

echo "the sum of $N prime numbers are: $sum"
```

Explanation:

1. First while loop is to check whether N prime numbers are achieved or not
2. The inner for loop is to check whether the given number is prime or not
3. If prime, then that number is added to the sum. Else program is moved to next number
4. After finding N prime numbers, their sum is printed.

Output:

```
aswinsankesh@aswin-linux:~$ gedit prime.sh &
[1] 37430
aswinsankesh@aswin-linux:~$ chmod +x prime.sh
[1]+  Done                    gedit prime.sh
aswinsankesh@aswin-linux:~$ ./prime.sh
enter N: 4
Prime numbers are:
5
7
11
13
the sum of 4 prime numbers are: 36
aswinsankesh@aswin-linux:~$
```