**1. Shell script to print username, current date & time, and current directory:**

#!/bin/bash

# Get the username

username=$(whoami)

# Get the current date & time

current\_datetime=$(date)

# Get the current directory

current\_directory=$(pwd)

# Print the information

echo "Username: $username"

echo "Current Date & Time: $current\_datetime"

echo "Current Directory: $current\_directory"

**Output Snip:**

**2. Shell script to print the sum of all digits of a given number:**

#!/bin/bash

read -p "Enter a number: " number

sum=0

while [ $number -gt 0 ]; do

digit=$((number % 10))

sum=$((sum + digit))

number=$((number / 10))

done

echo "Sum of digits: $sum"

**Output Snip:**

**3. Shell script to compare three numbers and print the largest (command line input):**

#!/bin/bash

if [ $# -ne 3 ]; then

echo "Usage: $0 <num1> <num2> <num3>"

exit 1

fi

num1=$1

num2=$2

num3=$3

if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]; then

largest=$num1

elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]; then

largest=$num2

else

largest=$num3

fi

echo "The largest number is: $largest"

**Output Snip:**

**7. Shell script calculator (with case structure):**

#!/bin/bash

if [ $# -ne 1 ]; then

echo "Usage: $0 <expression>"

exit 1

fi

expression="$1"

result=0

case "$expression" in

\*"+") result=$(echo "$expression" | bc);;

\*"-") result=$(echo "$expression" | bc);;

\*"x") result=$(echo "$expression" | sed 's/x/\*/' | bc);;

\*"/") result=$(echo "$expression" | bc);;

\*) echo "Invalid expression"; exit 1;;

esac

echo "Result: $result"

**Output Snip:**

**13. Shell script to print a number in reverse order:**

#!/bin/bash

read -p "Enter a number: " number

reversed=0

while [ $number -gt 0 ]; do

digit=$((number % 10))

reversed=$((reversed \* 10 + digit))

number=$((number / 10))

done

echo "Reversed number: $reversed"

**Output Snip:**

**14. Shell script to print numbers from 5 to 1 using a while loop:**

#!/bin/bash

count=5

while [ $count -ge 1 ]; do

echo $count

count=$((count - 1))

done

**Output Snip:**

**15. Shell script to find the factorial of a given number:**

#!/bin/bash

read -p "Enter a number: " num

factorial=1

if [ $num -lt 0 ]; then

echo "Factorial is not defined for negative numbers."

elif [ $num -eq 0 ]; then

echo "Factorial of 0 is 1."

else

for ((i = 1; i <= num; i++)); do

factorial=$((factorial \* i))

done

echo "Factorial of $num is $factorial."

fi

**Output Snip:**