
1. Write a PuTTY SSH shell script to calculate Life Path Number Astrology

🔑 Question:

Write a shell script that:

- Asks the user to enter their **Date of Birth** (example: 23042005).
- Calculates the **Life Path Number** by:
 - Adding all digits together.
 - If the sum is more than 9, add digits again to make it a single digit.
- Then use a **switch-case** to print an astrology message based on the Life Path Number:

Life Path Number	Astrology Message
1	Lucky
2	Carefully do your work
3	Stronger
4	Happy
5	Can get help
6	Doubt
7	Sad
8	Like
9	Courage

🔑 Answer (Shell Script Code):

```
echo "----- Astrology Based on Life Path Number -----"
read -p "Enter your Date of Birth (DDMMYYYY): " dob

sum=0
while [ $dob -gt 0 ]; do
    sum=$((sum + dob % 10))
    dob=$((dob / 10))
done

while [ $sum -gt 9 ]; do
    temp=$sum
    sum=0
    while [ $temp -gt 0 ]; do
        sum=$((sum + temp % 10))
        temp=$((temp / 10))
    done
done

case $sum in
    1) echo "Life Path: 1 - Lucky" ;;
    2) echo "Life Path: 2 - Carefully do your work" ;;
    3) echo "Life Path: 3 - Stronger" ;;
    4) echo "Life Path: 4 - Happy" ;;
    5) echo "Life Path: 5 - Can get help" ;;
    6) echo "Life Path: 6 - Doubt" ;;
    7) echo "Life Path: 7 - Sad" ;;
```

```
8) echo "Life Path: 8 - Like" ;;
9) echo "Life Path: 9 - Courage" ;;
*) echo "Invalid life path number" ;;
esac
```

2. Write a PuTTY SSH script to calculate Summation and Multiplication of numbers using a For Loop

🔖 Question:

Write a shell script that:

- Takes a **list of numbers** from the user.
- Calculates:
 - **Summation** using a **for loop**.
 - **Multiplication** using a **for loop**.
- Then display both results.

Example:

Input → 1 2 3 4 5

Output → Summation = 15, Multiplication = 120

🔖 Answer (Shell Script Code):

```
echo "----- Summation and Multiplication of Numbers -----"
read -p "Enter a list of numbers separated by spaces: " -a numbers

sum=0
product=1

for num in "${numbers[@]}"; do
    sum=$((sum + num))
    product=$((product * num))
done

echo "Summation = $sum"
echo "Multiplication = $product"
```

3. Print integers from 1 to 10 using a While Loop

🔖 Question:

Write a shell script to **print numbers from 1 to 10** using a **while loop**.

🔖 Answer (Shell Script Code):

```
echo "----- Printing Numbers from 1 to 10 -----"
i=1
```

```
while [ $i -le 10 ]; do
    echo "$i"
    i=$((i + 1))
done
```

4. Print patterns using Nested Loops

🔖 Question 1:

Print the following pattern (Triangle increasing):

```
*
* *
* * *
* * * *
* * * * *
* * * * *
* * * * *
```

🔖 Answer (Shell Script Code):

```
echo "----- Pattern 1 (Increasing Stars) -----"
rows=7
for ((i=1; i<=rows; i++)); do
    for ((j=1; j<=i; j++)); do
        echo -n "*"
    done
    echo
done
```

🔖 Question 2:

Print the following pattern (Triangle decreasing):

```
* * * * *
* * * *
* * * *
* * *
* *
*
*
```

🔖 Answer (Shell Script Code):

```
echo "----- Pattern 2 (Decreasing Stars) -----"
rows=7
for ((i=rows; i>=1; i--)); do
    for ((j=1; j<=i; j++)); do
        echo -n "*"
    done
    echo
done
```
