

Activity: Examine input/output in the Linux shell

Scenario

As a security professional, it's important to understand the concept of communicating with your computer via the shell.

In this scenario, you have to input a specified string of text that you want the shell to return as output. You'll also need to input a few mathematical calculations so the OS (operating system) can return the result.

Here's how you'll do this: **First**, you'll use the `echo` command to generate some output in the shell. **Second**, you'll use the `expr` command to perform basic mathematical calculations. **Next**, you'll use the `clear` command to clear the Bash shell window. **Finally**, you'll have an opportunity to explore the `echo` and `expr` commands further.

Task 1. Generate output with the echo command

1. Type **echo hello** into the shell and press **ENTER**.

```
analyst@c15c4fe4c783:~$ echo hello
hello
```

2. Rerun the command, but include quotation marks around the string data. Type **echo "hello"** into the shell and press **ENTER**.

```
analyst@c15c4fe4c783:~$ echo "hello"
hello
```

3. Use the **echo** command to output your name to the shell.

Type **echo "name"** into the shell, replacing "name" with your own name, and press **ENTER**.

```
analyst@c15c4fe4c783:~$ echo "Yan Zhang"
Yan Zhang
```

Task 2. Generate output with the expr command

1. Calculate the number of false positives using the `expr` command.

Type **expr 32 - 8** into the shell and press **ENTER**.

```
analyst@c15c4fe4c783:~$ expr 32 - 8
24
```

Note: The **expr** command requires that all terms and operators in an expression are separated by spaces. For example: `expr 32 - 8`, and **not** `expr 32-8`.

2. Type **expr** 3500 * 12 into the shell and press **ENTER**.

```
analyst@c15c4fe4c783:~$ expr 3500 * 12  
42000
```

Task 3. Clear the Bash shell

- Type **clear** into the shell and press **ENTER**.

Note: All previous commands and output will be cleared, and the user prompt and cursor will return to the upper left of the shell window.

```
analyst@c15c4fe4c783:~$ clear
```