Project

As a security analyst, I'm starting a notebook environment project to improve my Python skills. This lab will teach me how to work effectively in notebook interfaces, write clean code, and use print() functions with meaningful comments. I'll practice creating code that could be useful in security analysis, carefully observing pre-written cells and developing my own explanations. By the end of this project, I'll be more confident in using notebooks and Python for technical work, which is crucial for my professional development.

I'm working on a task in my Python notebook where I need to run a code cell. I see a comment explaining the cell's purpose, followed by a print statement that will display "Hello world!". To complete this task, I'll place my cursor on the cell and press Shift+Enter to run it. I understand this will execute the code and show the output, demonstrating how code cells and print functions work in Python notebooks.

In [1]:
```
# This cell displays "Hello world!"

print("Hello world!")
```

```
Hello world!
```

I'm working on another task in my Python notebook, this time focusing on code comments. I'm learning that comments are crucial for documenting code intentions and decisions, which helps me and my team understand the code later. The task instructs me to run a code cell that contains only comments. I'll execute this cell using Shift+Enter or the play button, just like before. I expect to see no output since comments aren't displayed when the code runs. This exercise will help me understand how comments work in Python and their importance in coding practices.

In [3]:
```
# In Python, comments do not get displayed
# This code cell contains only comments
```

In this task, I'm learning how to add comments to a code cell in my Python notebook. I need to click into the cell and write a comment that describes what the code will do. The instructions specify that I should replace the placeholder comment with "# This cell displays "I am using Python."" before running the cell. By completing this exercise, I'll practice writing clear, informative comments that explain the purpose of my code.

In [6]:
```
# This cell displays "I am using Python."
print("I am using Python")
```

```
I am using Python
```

In this task, I'm learning how to use the print() function in Python to display information on the screen. My assignment is to modify a code cell by replacing a placeholder with the actual print() statement. I need to write print("I am a security analyst."). Once I've made this change, I'll run the cell to see the message displayed. This exercise will help me practice using the print() function, which is a fundamental tool for outputting information in Python.

```
In [7]: ### This cell prints "I am a security analyst" ###
        print ("I am a security analyst")
```

```
I am a security analyst
```

In this task, I'm practicing using the print() function in Python. My job is to write a print() statement that displays the specific message "Python is useful for security!" I need to replace the placeholder in the code cell with my own code. After writing the correct print() statement, I'll run the cell to see the output. This exercise reinforces my understanding of how to use print() to display custom messages, which is an essential skill for outputting information in Python scripts.

```
In [8]: ### This cell displays "Python useful for security!"" ###
        print ("Python is useful for security!")
```

```
Python is useful for security!
```

In this task, I'm combining all the print() statements I've learned and written throughout this lab into a single code cell. My job is to complete the code by adding the remaining messages where placeholders are indicated. I'll replace each placeholder with the appropriate print() statement, ensuring all the messages from previous exercises are included. After filling in all the required print() statements, I'll run the cell to see all the messages displayed together. This exercise helps me practice organizing multiple print() statements in one cell and reinforces my understanding of how to output various messages in Python.

```
In [9]: ### This statement lists all the print statements used so far ###
        print("Hello world!")
        print("I am using Python.")
        print("I am a security analyst.")
        print("Python is useful for security!")
```

```
Hello world!
I am using Python.
I am a security analyst.
Python is useful for security!
```

Key Takeaways

- Notebooks consist of two types of cells: text cells (markdown cells) and code cells.
- Code comments help security analysts document and explain their code, providing context and improving understanding.
- Multiple print statements can be written in a single cell, executing sequentially when run.
- The print() function displays text on the screen, with text enclosed in quotation marks within the parentheses.
- Multiple print() statements in one cell display their outputs sequentially when the cell is run.